Women's 400m Hurdles Touchdown Times - by athletics meeting

LAST UPDATE: 12-Nov-23

2023 Prefontaine Classic (Eugene, OR)

FINAL date 17-Sep-23

Omega Timing (2023) - diamond league race analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.25	10.32	14.46	18.63	22.96		27.45	32.03	36.74	41.54	46.44		51.98	6 / 1			
reaction time	0.158	interval		4.07	4.14	4.17	4.33		4.49	4.58	4.71	4.80	4.90	5.54			12.38	13.40	14.41
		velocity	7.20	8.60	8.45	8.39	8.08		7.80	7.64	7.43	7.29	7.14	7.22	7.70		8.48	7.84	7.29
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	18.2	169.2				
Little, Shamier (USA) (1995)		time	6.09	10.12	14.23	18.41	22.76		27.27	31.89	36.64	41.61	46.92		53.45	5 / 2			
reaction time	0.169	interval		4.03	4.11	4.18	4.35		4.51	4.62	4.75	4.97	5.31	6.53			12.32	13.48	15.03
		velocity	7.39	8.68	8.52	8.37	8.05		7.76	7.58	7.37	7.04	6.59	6.13	7.48		8.52	7.79	6.99
H1 lead leg	R	strides	23	15	15	14	14		15	15	15	16	16	20	178				
Clayton, Rushell (JAM) (199		time	6.25	10.22	14.25	18.43	22.88		27.51	32.30	37.29	42.36	47.53		53.56	7 / 3			
reaction time	0.138	interval		3.97	4.03	4.18	4.45		4.63	4.79	4.99	5.07	5.17	6.03			12.18	13.87	15.23
		velocity	7.20	8.82	8.68	8.37	7.87		7.56	7.31	7.01	6.90	6.77	6.63	7.47		8.62	7.57	6.89
H1 lead leg	L	strides	22	14	14	14	14		15	16	16	16	16	19	176				
Russell, Janieve (JAM) (1993		time	6.30	10.42	14.57	18.74	23.10		27.69	32.48	37.37	42.27	47.41		53.60	3 / 4			
reaction time	0.140	interval		4.12	4.15	4.17	4.36		4.59	4.79	4.89	4.90	5.14	6.19			12.44	13.74	14.93
		velocity	7.14	8.50	8.43	8.39	8.03		7.63	7.31	7.16	7.14	6.81	6.46	7.46		8.44	7.64	7.03
H1 lead leg	R	strides	23	15			15		15	16	16	16	16	20	152				
Cockrell, Anna (USA) (1997)		time	6.07	10.07	14.20	18.41	22.87		27.58	32.45	37.43	42.63	48.04		54.48	4 / 5			
reaction time	0.139	interval		4.00	4.13	4.21	4.46		4.71	4.87	4.98	5.20	5.41	6.44			12.34	14.04	15.59
		velocity	7.41	8.75	8.47	8.31	7.85		7.43	7.19	7.03	6.73	6.47	6.21	7.34		8.51	7.48	6.74
H1 lead leg	R	strides	22	14			14		15	15	15	15	16		126				
Folorunso, Ayomide (ITA) (1		time	6.28	10.51	14.83	19.23	23.78		28.48	33.29	38.25	43.37	48.63		54.68	8 / 6			
reaction time	0.182	interval		4.23	4.32	4.40	4.55		4.70	4.81	4.96	5.12	5.26	6.05			12.95	14.06	15.34
		velocity	7.17	8.27	8.10	7.95	7.69		7.45	7.28	7.06	6.84	6.65	6.61	7.32		8.11	7.47	6.84
H1 lead leg	L	strides	23	15	15	15	16		16	16	16				132				
Woodruff, Gianna (PAN) (19		time	6.39	10.53	14.84	19.27	23.82		28.51	33.42	38.45	43.52	48.79		54.95	2 / 7			
reaction time	0.192	interval		4.14	4.31	4.43	4.55		4.69	4.91	5.03	5.07	5.27	6.16			12.88	14.15	15.37
		velocity	7.04	8.45	8.12	7.90	7.69		7.46	7.13	6.96	6.90	6.64	6.49	7.28		8.15	7.42	6.83
H1 lead leg	L	strides	22	14			15		15	15			17		98				
Ryzhykova, Anna (UKR) (19		time	6.47	10.66	14.96	19.32	23.83		28.67	33.68	38.71	43.79	48.98		54.98	1 / 8			
reaction time	0.166	interval		4.19	4.30	4.36	4.51		4.84	5.01	5.03	5.08	5.19	6.00			12.85	14.36	15.30
		velocity	6.96	8.35	8.14	8.03	7.76		7.23	6.99	6.96	6.89	6.74	6.67	7.28		8.17	7.31	6.86
H1 lead leg	R	strides	22	14			14		15	15			15		95				
Tkachuk, Viktoriya (UKR) (19		time	6.46	10.72	15.06	19.42	23.91		28.57	33.49	38.52	43.73	49.12		55.48	9 / 9			
reaction time	0.218	interval		4.26	4.34	4.36	4.49		4.66	4.92	5.03	5.21	5.39	6.36			12.96	14.07	15.63
		velocity	6.97	8.22	8.06	8.03	7.80		7.51	7.11	6.96	6.72	6.49	6.29	7.21		8.10	7.46	6.72
H1 lead leg	L	strides	22	15	15	15	15		15	16	16				129				

2023 Memorial van Damme (Brussels, BEL)

FINAL date 08-Sep-23

Omega Timing (2023) - diamond league race analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.27	10.23	14.33	18.52	22.83		27.32	32.00	36.77	41.61	46.55		52.11	5 / 1			
reaction time	0.203	interval		3.96	4.10	4.19	4.31		4.49	4.68	4.77	4.84	4.94	5.56			12.25	13.48	14.55
		velocity	7.18	8.84	8.54	8.35	8.12		7.80	7.48	7.34	7.23	7.09	7.19	7.68		8.57	7.79	7.22
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	18.2	169.2				
Russell, Janieve (JAM) (1993		time	6.33	10.42	14.55	18.78	23.14		27.72	32.46	37.21	42.24	47.56		53.80	7 / 2			
reaction time	0.153	interval		4.09	4.13	4.23	4.36		4.58	4.74	4.75	5.03	5.32	6.24			12.45	13.68	15.10
		velocity	7.11	8.56	8.47	8.27	8.03		7.64	7.38	7.37	6.96	6.58	6.41	7.43		8.43	7.68	6.95
H1 lead leg	R	strides	23	15	15				16	16	16	16	17	20	154				
Clayton, Rushell (JAM) (199		time	6.19	10.12	14.19	18.38	22.77		27.44	32.25	37.17	42.32	47.77		54.10	6 / 3			
reaction time	0.141	interval		3.93	4.07	4.19	4.39		4.67	4.81	4.92	5.15	5.45	6.33			12.19	13.87	15.52
		velocity	7.27	8.91	8.60	8.35	7.97		7.49	7.28	7.11	6.80	6.42	6.32	7.39		8.61	7.57	6.77
H1 lead leg	L	strides	22	14	14	14	15		15	15	15	16	16	19.5	175.5				
Cockrell, Anna (USA) (1997)		time	6.12	9.98	14.06	18.26	22.65		27.38	32.21	37.15	42.34	47.82		54.29	2 / 4			
reaction time	0.218	interval		3.86	4.08	4.20	4.39		4.73	4.83	4.94	5.19	5.48	6.47			12.14	13.95	15.61
		velocity	7.35	9.07	8.58	8.33	7.97		7.40	7.25	7.09	6.74	6.39	6.18	7.37		8.65	7.53	6.73
H1 lead leg	R	strides	22	14	14				15	15	15	15	16	19.7	145.7				
Folorunso, Ayomide (ITA) (1		time	6.29	10.42	14.73	19.09	23.61		28.28	33.09	38.06	43.17	48.42		54.42	8 / 5			
reaction time	0.213	interval		4.13	4.31	4.36	4.52		4.67	4.81	4.97	5.11	5.25	6.00			12.80	14.00	15.33
		velocity	7.15	8.47	8.12	8.03	7.74		7.49	7.28	7.04	6.85	6.67	6.67	7.35		8.20	7.50	6.85
H1 lead leg	L	strides	24	15	15				16	16	16	16	17	20	155				
Knight, Andrenette (JAM) (1		time	6.09	9.97	13.98	18.10	22.43		27.03	31.79	36.78	42.09	47.77		54.75	3 / 6			

reaction time	0.153	interval		3.88	4.01	4.12	4.33	4.60	4.76	4.99	5.31	5.68	6.98			12.01	13.69	15.98
		velocity	7.39	9.02	8.73	8.50	8.08	7.61	7.35	7.01	6.59	6.16	5.73	7.31		8.74	7.67	6.57
H1 lead leg	R	strides	24	15	15			16	16	16	17	17	20.2	156.2				
Claes, Hanne (BEL) (1991)		time	6.37	10.45	14.70	19.07	23.57	28.22	33.11	38.19	43.37	48.70		54.95	4 / 7			
reaction time	0.205	interval		4.08	4.25	4.37	4.50	4.65	4.89	5.08	5.18	5.33	6.25			12.70	14.04	15.59
		velocity	7.06	8.58	8.24	8.01	7.78	7.53	7.16	6.89	6.76	6.57	6.40	7.28		8.27	7.48	6.74
H1 lead leg	R	strides	23	15	15	15	15	15	16	16	17	17	21	185				
Tkachuk, Viktoriya (UKR) (19		time	6.38	10.49	14.76	19.12	23.59	28.20	33.03	38.04	43.23	48.63		54.98	1 / 8			
reaction time	0.217	interval		4.11	4.27	4.36	4.47	4.61	4.83	5.01	5.19	5.40	6.35			12.74	13.91	15.60
		velocity	7.05	8.52	8.20	8.03	7.83	7.59	7.25	6.99	6.74	6.48	6.30	7.28		8.24	7.55	6.73
H1 lead leg	L	strides	22	15	15			15	16	16	16	17	20.5	152.5				

2023 Galà Dei Castelli (Bellinzona, ITA) (TV Analysis)

FINAL date 04-Sep-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.36	10.52	14.68	18.92	23.28		27.80	32.48	37.32	42.28	47.28		52.79	4 / 1			
reaction time		interval		4.16	4.16	4.24	4.36		4.52	4.68	4.84	4.96	5.00	5.51			12.56	13.56	14.80
		velocity	7.08	8.41	8.41	8.25	8.03		7.74	7.48	7.23	7.06	7.00	7.26	7.58		8.36	7.74	7.09
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	18.2	169.2				
Little, Shamier (USA) (1995)		time	6.44	10.64	14.92		23.48		27.96	32.56	37.28	42.32	47.52		53.64	5 / 2			
reaction time		interval		4.20	4.28		8.56		4.48	4.60	4.72	5.04	5.20	6.12					14.96
		velocity	6.99	8.33	8.18		8.18		7.81	7.61	7.42	6.94	6.73	6.54	7.46				7.02
H1 lead leg	R	strides	23	15	15				15	15	15	16	16	20	150				

2023 Xiamen Diamond League (Xiamen, CHN)

FINAL date 02-Sep-23

Omega Timing (2023) - diamond league race analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Clayton, Rushell (JAM) (199		time	6.30	10.30	14.40	18.60	22.90		27.50	32.20	37.10	42.20	47.40		53.56	5 / 1			
reaction time	0.138	interval		4.00	4.10	4.20	4.30		4.60	4.70	4.90	5.10	5.20	6.16			12.30	13.60	15.20
		velocity	7.14	8.75	8.54	8.33	8.14		7.61	7.45	7.14	6.86	6.73	6.49	7.47		8.54	7.72	6.91
H1 lead leg	R	strides	23	14	15	15	15		15	15	16	16	16	19.2	179.2				
Knight, Andrenette (JAM) (1		time	6.18	10.13	14.20	18.43	22.83		27.44	32.21	37.24	42.44	47.64		53.87	7 / 2			
reaction time	0.162	interval		3.95	4.07	4.23	4.40		4.61	4.77	5.03	5.20	5.20	6.23			12.25	13.78	15.43
		velocity	7.28	8.86	8.60	8.27	7.95		7.59	7.34	6.96	6.73	6.73	6.42	7.43		8.57	7.62	6.80
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	20	186				
Russell, Janieve (JAM) (1993		time	6.31	10.37	14.49	18.71	23.06		27.63	32.41	37.36	42.41	47.61		54.01	6 / 3			
reaction time	0.173	interval		4.06	4.12	4.22	4.35		4.57	4.78	4.95	5.05	5.20	6.40			12.40	13.70	15.20
		velocity	7.13	8.62	8.50	8.29	8.05		7.66	7.32	7.07	6.93	6.73	6.25	7.41		8.47	7.66	6.91
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	16	17	20	184				
Folorunso, Ayomide (ITA) (1		time	6.31	10.45	14.72	19.11	23.61		28.31	33.10	38.05	43.08	48.16		54.08	3 / 4			
reaction time	0.185	interval		4.14	4.27	4.39	4.50		4.70	4.79	4.95	5.03	5.08	5.92			12.80	13.99	15.06
		velocity	7.13	8.45	8.20	7.97	7.78		7.45	7.31	7.07	6.96	6.89	6.76	7.40		8.20	7.51	6.97
H1 lead leg	L	strides	23	15	15	15	16		16	16	16	16	17	20	185				
Ryzhykova, Anna (UKR) (19		time	6.51	10.65	14.89	19.28	23.79		28.59	33.44	38.37	43.43	48.51		54.35	1 / 5			
reaction time	0.157	interval		4.14	4.24	4.39	4.51		4.80	4.85	4.93	5.06	5.08	5.84			12.77	14.16	15.07
		velocity	6.91	8.45	8.25	7.97	7.76		7.29	7.22	7.10	6.92	6.89	6.85	7.36		8.22	7.42	6.97
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19	172				
Cockrell, Anna (USA) (1997)		time	6.06	9.92	14.02	18.31	22.80		27.58	32.39	37.49	42.71	48.04		54.56	4 / 6			
reaction time	0.182	interval		3.86	4.10	4.29	4.49		4.78	4.81	5.10	5.22	5.33	6.52			12.25	14.08	15.65
		velocity	7.43	9.07	8.54	8.16	7.80		7.32	7.28	6.86	6.70	6.57	6.13	7.33		8.57	7.46	6.71
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	16	16	19.7	174.7				
Tkachuk, Viktoriya (UKR) (19		time	6.31	10.47	14.77	19.14	23.60		28.21	33.04	38.16	43.48	48.90		55.25	8 / 7			
reaction time	0.201	interval		4.16	4.30	4.37	4.46		4.61	4.83	5.12	5.32	5.42	6.35			12.83	13.90	15.86
		velocity	7.13	8.41	8.14	8.01	7.85		7.59	7.25	6.84	6.58	6.46	6.30	7.24		8.18	7.55	6.62
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	17			146				
Lehikoinen, Viivi (FIN) (1999)		time	6.31	10.42	14.67	19.13	23.74		28.55	33.39	38.48	43.71	49.08		55.44	2 / 8			
reaction time	0.215	interval		4.11	4.25	4.46	4.61		4.81	4.84	5.09	5.23	5.37	6.36			12.82	14.26	15.69
		velocity	7.13	8.52	8.24	7.85	7.59		7.28	7.23	6.88	6.69	6.52	6.29	7.22		8.19	7.36	6.69
H1 lead leg	R	strides	23	15	15	16	16		16	16	16	17	17		167				
Woodruff, Gianna (PAN) (19		time	6.40	10.40	14.62	18.99	23.53		28.20	33.04	38.11	43.49	48.85		55.45	9 / 9			
reaction time	0.219	interval		4.00	4.22	4.37	4.54		4.67	4.84	5.07	5.38	5.36	6.60			12.59	14.05	15.81
		velocity	7.03	8.75	8.29	8.01	7.71		7.49	7.23	6.90	6.51	6.53	6.06	7.21		8.34	7.47	6.64
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16			145				

2023 World Athletics Championships (Budapest, HUN) (TV Analysis)

FINAL date 24-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.37	10.44	14.41	18.41	22.66		27.03	31.53	36.24	41.07	46.01		51.70	6 / 1			

reaction time	0.202	interval		4.07	3.97	4.00	4.25	4.37	4.50	4.71	4.83	4.94	5.69			12.04	13.12	14.48
		velocity	7.06	8.60	8.82	8.75	8.24	8.01	7.78	7.43	7.25	7.09	7.03	7.74		8.72	8.00	7.25
H1 lead leg	L	strides	22	14	14	14	14	14	14	15	15	15	18.5	169.5				
Little, Shamier (USA) (1995)		time	6.24	10.41	14.58	18.68	23.02	27.46	31.96	36.64	41.54	46.81		52.80	5 / 2			
reaction time	0.181	interval		4.17	4.17	4.10	4.34	4.44	4.50	4.68	4.90	5.27	5.99			12.44	13.28	14.85
		velocity	7.21	8.39	8.39	8.54	8.06	7.88	7.78	7.48	7.14	6.64	6.68	7.58		8.44	7.91	7.07
H1 lead leg	R	strides	23	15	15	15	15	15		15	15	16	20	164				
Clayton, Rushell (JAM) (199		time	6.31	10.39	14.42	18.36	22.59	27.06	31.63	36.43	41.47	46.68		52.81	8 / 3			
reaction time	0.147	interval		4.08	4.03	3.94	4.23	4.47	4.57	4.80	5.04	5.21	6.13	PB		12.05	13.27	15.05
		velocity	7.13	8.58	8.68	8.88	8.27	7.83	7.66	7.29	6.94	6.72	6.53	7.57		8.71	7.91	6.98
H1 lead leg	L	strides	22	14	14	14	14	15	15	15	16	16	20	175				
Adekoya, Kemi (BRN) (1993)		time	6.34	10.41	14.48	18.55	22.82	27.23	31.73	36.64	41.74	47.18		53.09	7 / 4			
reaction time	0.207	interval		4.07	4.07	4.07	4.27	4.41	4.50	4.91	5.10	5.44	5.91	AR		12.21	13.18	15.45
		velocity	7.10	8.60	8.60	8.60	8.20	7.94	7.78	7.13	6.86	6.43	6.77	7.53		8.60	7.97	6.80
H1 lead leg	R	strides	23	15	15	15	15	15	15	16	16	17	20	182				
Cockrell, Anna (USA) (1997)		time	6.17	10.12	14.11	18.05	22.39	26.92	31.49		41.47	46.88		53.34	9 / 5			
reaction time	0.189	interval		3.95	3.99	3.94	4.34	4.53	4.57		9.98	5.41	6.46	PB		11.88	13.44	15.39
		velocity	7.29	8.86	8.77	8.88	8.06	7.73	7.66		7.01	6.47	6.19	7.50		8.84	7.81	6.82
H1 lead leg	R	strides	22	14	14	14	14	15	15			16	20	144				
Folorunso, Ayomide (ITA) (1		time	6.41	10.74	15.01	19.27	23.72		33.13	38.06	43.14	48.34		54.19	2 / 6			
reaction time	0.192	interval		4.33	4.27	4.26	4.45		9.41	4.93	5.08	5.20	5.85			12.86	13.86	15.21
		velocity	7.02	8.08	8.20	8.22	7.87		7.44	7.10	6.89	6.73	6.84	7.38		8.16	7.58	6.90
H1 lead leg	L	strides	23	15	15	15	16	16			16	17	20	153				
Russell, Janieve (JAM) (1993		time	6.34	10.44	14.54	18.55	22.79	27.29	32.00		42.21	47.78		54.28	3 / 7			
reaction time	0.152	interval		4.10	4.10	4.01	4.24	4.50	4.71		10.21	5.57	6.50			12.21	13.45	15.78
		velocity	7.10	8.54	8.54	8.73	8.25	7.78	7.43		6.86	6.28	6.15	7.37		8.60	7.81	6.65
H1 lead leg	R	strides	23	15	15	15	15	16				17	20.5	136.5				
Knight, Andrenette (JAM) (1		time	6.24	10.37	14.44	18.52	22.92	27.49	32.29	37.30	42.67	48.31		55.20	4 / 8			
reaction time	0.158	interval		4.13	4.07	4.08	4.40	4.57	4.80	5.01	5.37	5.64	6.89			12.28	13.77	16.02
		velocity	7.21	8.47	8.60	8.58	7.95	7.66	7.29	6.99	6.52	6.21	5.81	7.25		8.55	7.63	6.55
H1 lead leg	R	strides	23	15	15	15	15	16			17	17	20.7	153.7				

Semi-Final 3

date 22-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.17	10.14	14.28	18.52	22.92		27.42	32.03	36.80	41.86	46.95		52.81	8 / 1			
reaction time	0.212	interval		3.97	4.14	4.24	4.40		4.50	4.61	4.77	5.06	5.09	5.86			12.35	13.51	14.92
		velocity	7.29	8.82	8.45	8.25	7.95		7.78	7.59	7.34	6.92	6.88	6.83	7.57		8.50	7.77	7.04
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.2	179.2				
Adekoya, Kemi (BRN) (1993)		time	6.34	10.37	14.48	18.68	22.99			32.10	36.91	41.98	47.35		53.39	6 / 2			
reaction time	0.195	interval		4.03	4.11	4.20	4.31			9.11	4.81	5.07	5.37	6.04	AR		12.34	13.42	15.25
		velocity	7.10	8.68	8.52	8.33	8.12			7.68	7.28	6.90	6.52	6.62	7.49		8.51	7.82	6.89
H1 lead leg	R	strides	23	15	15	15	15				15	16	17	19.7	150.7				
Russell, Janieve (JAM) (1993		time	6.37	10.48	14.58	18.86	23.22			32.43	37.27	42.32	47.59		53.69	7 / 3			
reaction time	0.180	interval		4.11	4.10	4.28	4.36			9.21	4.84	5.05	5.27	6.10			12.49	13.57	15.16
		velocity	7.06	8.52	8.54	8.18	8.03			7.60	7.23	6.93	6.64	6.56	7.45		8.41	7.74	6.93
H1 lead leg	R	strides	23	15	15	15	15				16	17	17	20	153				
Folorunso, Ayomide (ITA) (1		time	6.27	10.38	14.61	18.92	23.32			32.60	37.47	42.50	47.76		53.89	5 / 4			
reaction time	0.190	interval		4.11	4.23	4.31	4.40			9.28	4.87	5.03	5.26	6.13	NR		12.65	13.68	15.16
		velocity	7.18	8.52	8.27	8.12	7.95			7.54	7.19	6.96	6.65	6.53	7.42		8.30	7.68	6.93
H1 lead leg	L	strides	23	15	15	15	16				16	16	17	20.5	153.5				
Peeters, Cathelijn (NED) (199		time	6.50	10.64	14.91	19.22	23.72			33.36	38.40	43.51	48.71		54.63	4 / 5			
reaction time	0.248	interval		4.14	4.27	4.31	4.50			9.64	5.04	5.11	5.20	5.92			12.72	14.14	15.35
		velocity	6.92	8.45	8.20	8.12	7.78			7.26	6.94	6.85	6.73	6.76	7.32		8.25	7.43	6.84
H1 lead leg	R	strides	22	15	15	15	15			16	16	16	16	19.2	165.2				
Sutherland, Savannah (CAN		time	6.57	10.77	15.08	19.42	23.86				38.20	43.41	48.88		54.99	2 / 6			
reaction time	0.214	interval		4.20	4.31	4.34	4.44				14.34	5.21	5.47	6.11			12.85		
		velocity	6.85	8.33	8.12	8.06	7.88				7.32	6.72	6.40	6.55	7.27		8.17		
H1 lead leg	R	strides	23	15	15	15	15					16	17	20	136				
Claes, Hanne (BEL) (1991)		time	6.34	10.34	14.48	18.72	23.15		27.91	32.84		43.51	49.25		56.06	9 / 7			
reaction time	0.208	interval		4.00	4.14	4.24	4.43		4.76	4.93		10.67	5.74	6.81			12.38	14.12	16.41
		velocity	7.10	8.75	8.45	8.25	7.90		7.35	7.10		6.56	6.10	5.87	7.14		8.48	7.44	6.40
H1 lead leg	R	strides	23	15	15	15	15		16	16		16	18	21	170				
Demes, Eileen (GER) (1997)		time	6.44	10.51	14.71	19.04	23.52			32.96	38.14	43.84	49.88		56.71	3 / 8			
reaction time	0.166	interval		4.07	4.20	4.33	4.48			9.44	5.18	5.70	6.04	6.83			12.60	13.92	16.92
		velocity	6.99	8.60	8.33	8.08	7.81			7.42	6.76	6.14	5.79	5.86	7.05		8.33	7.54	6.21
H1 lead leg	R	strides	22	14	14	14	14				16	17	17	20	148				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Semi-Final 2

date 22-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.31	10.44	14.45	18.45	22.75		27.20	31.79	36.57	41.60	46.71		52.95	8 / 1			
reaction time	0.199	interval		4.13	4.01	4.00	4.30		4.45	4.59	4.78	5.03	5.11	6.24			12.14	13.34	14.92
		velocity	7.13	8.47	8.73	8.75	8.14		7.87	7.63	7.32	6.96	6.85	6.41	7.55		8.65	7.87	7.04
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	18.5	169.5				
Knight, Andrenette (JAM) (1		time	6.27	10.41	14.51	18.61	22.99		27.49	32.23	37.20	42.30	47.58		53.72	7 / 2			
reaction time	0.163	interval		4.14	4.10	4.10	4.38		4.50	4.74	4.97	5.10	5.28	6.14			12.34	13.62	15.35
		velocity	7.18	8.45	8.54	8.54	7.99		7.78	7.38	7.04	6.86	6.63	6.51	7.45		8.51	7.71	6.84
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	17	20	182				
Muhammad, Dalilah (USA) (		time	6.24	10.38	14.48	18.55	22.89		27.42	32.16	37.20	42.49	47.94		54.19	6 / 3			
reaction time	0.169	interval		4.14	4.10	4.07	4.34		4.53	4.74	5.04	5.29	5.45	6.25			12.31	13.61	15.78
		velocity	7.21	8.45	8.54	8.60	8.06		7.73	7.38	6.94	6.62	6.42	6.40	7.38		8.53	7.71	6.65
H1 lead leg	R	strides	22	14	14	15	15		15	15	15	16	16	19.7	176.7				
Ryzhykova, Anna (UKR) (19		time	6.55	10.84	15.01	19.21	23.66		28.36	33.15	38.07		48.41		54.42	9 / 4			
reaction time	0.186	interval		4.29	4.17	4.20	4.45		4.70	4.79	4.92		10.34	6.01			12.66	13.94	15.26
		velocity	6.87	8.16	8.39	8.33	7.87		7.45	7.31	7.11		6.77	6.66	7.35		8.29	7.53	6.88
H1 lead leg	R	strides	22	14	14	14	14		15	15	15		15	19.2	157.2				
Krafzik, Carolina (GER) (199		time	6.33	10.44	14.48	18.58	22.95		27.66	32.56	37.67	42.93	48.35		54.58	5 / 5			
reaction time	0.192	interval		4.11	4.04	4.10	4.37		4.71	4.90	5.11	5.26	5.42	6.23			12.25	13.98	15.79
		velocity	7.11	8.52	8.66	8.54	8.01		7.43	7.14	6.85	6.65	6.46	6.42	7.33		8.57	7.51	6.65
H1 lead leg	L	strides	23	15	15	15	15		17	17	17	17	17	21.7	189.7				
Jíchová, Nikoleta (CZE) (200		time	6.57	10.88	15.18	19.48	23.99			33.63	38.74	43.97	49.24		55.01	4 / 6			
reaction time	0.229	interval		4.31	4.30	4.30	4.51			9.64	5.11	5.23	5.27	5.77			12.91	14.15	15.61
		velocity	6.85	8.12	8.14	8.14	7.76			7.26	6.85	6.69	6.64	6.93	7.27		8.13	7.42	6.73
H1 lead leg	R	strides	22	15	15	15	15				16	16	16	20.7	150.7				
Kloster, Line (NOR) (1990)		time	6.30	10.57	14.78	19.08	23.52				38.23	43.51	49.08		55.43	2 / 7			
reaction time	0.152	interval		4.27	4.21	4.30	4.44				14.71	5.28	5.57	6.35			12.78		
		velocity	7.14	8.20	8.31	8.14	7.88				7.14	6.63	6.28	6.30	7.22		8.22		
H1 lead leg	R	strides	22	14	14	15	15				16	16	17	20	149				
van der Walt, Zenéy (RSA) (2		time	6.70	11.11	15.48	19.82	24.42			33.93		44.21	49.51		55.49	3 / 8			
reaction time	0.212	interval		4.41	4.37	4.34	4.60			9.51		10.28	5.30	5.98			13.12	14.11	15.58
		velocity	6.72	7.94	8.01	8.06	7.61			7.36		6.81	6.60	6.69	7.21		8.00	7.44	6.74
H1 lead leg	L	strides	23	15	15	15	15				16		16	19.5	134.5				

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date 22-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Clayton, Rushell (JAM) (199		time	6.34	10.44	14.51	18.48	22.72		27.23	31.90	36.73	41.86	47.19		53.30	5 / 1			
reaction time	0.190	interval		4.10	4.07	3.97	4.24		4.51	4.67	4.83	5.13	5.33	6.11	**PB**		12.14	13.42	15.29
		velocity	7.10	8.54	8.60	8.82	8.25		7.76	7.49	7.25	6.82	6.57	6.55	7.50		8.65	7.82	6.87
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	16	16	19	174				
Cockrell, Anna (USA) (1997)		time	6.27	10.31	14.38	18.48	22.96		27.76	32.53	37.37	42.45	47.65		53.63	7 / 2			
reaction time	0.199	interval		4.04	4.07	4.10	4.48		4.80	4.77	4.84	5.08	5.20	5.98	**PB**		12.21	14.05	15.12
		velocity	7.18	8.66	8.60	8.54	7.81		7.29	7.34	7.23	6.89	6.73	6.69	7.46		8.60	7.47	6.94
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	19	173				
Lehikoinen, Viivi (FIN) (1999)		time	6.42	10.61	14.81	18.88	23.29		27.89	32.66	37.63	42.72	48.04		54.48	4 / 3			
reaction time	0.200	interval		4.19	4.20	4.07	4.41		4.60	4.77	4.97	5.09	5.32	6.44			12.46	13.78	15.38
		velocity	7.01	8.35	8.33	8.60	7.94		7.61	7.34	7.04	6.88	6.58	6.21	7.34		8.43	7.62	6.83
H1 lead leg	R	strides	23	15	15	15	16		16	16	16	17	17	21	187				
Knight, Jessie (GBR) (1994)		time	6.61	11.01	15.28	19.54	23.99		28.72	33.56	38.50	43.64	48.88		54.51	8 / 4			
reaction time	0.187	interval		4.40	4.27	4.26	4.45		4.73	4.84	4.94	5.14	5.24	5.63			12.93	14.02	15.32
		velocity	6.81	7.95	8.20	8.22	7.87		7.40	7.23	7.09	6.81	6.68	7.10	7.34		8.12	7.49	6.85
H1 lead leg	R	strides	22	14	14	14	14		15	15	15		16		139				
Woodruff, Gianna (PAN) (19		time	6.44	10.57	14.68	18.86	23.29		27.92	32.70	37.73		48.41		54.71	9 / 5			
reaction time	0.208	interval		4.13	4.11	4.18	4.43		4.63	4.78	5.03		10.68	6.30			12.42	13.84	15.71
		velocity	6.99	8.47	8.52	8.37	7.90		7.56	7.32	6.96		6.55	6.35	7.31		8.45	7.59	6.68
H1 lead leg	L	strides	22	15	15	15	15		15	15	16				128				
Ennadi, Noura (MAR) (1999)		time	6.61	11.07	15.41	19.68	24.25			34.06	39.07	44.21	49.34		55.15	2 / 6			
reaction time	0.184	interval		4.46	4.34	4.27	4.57			9.81	5.01	5.14	5.13	5.81			13.07	14.38	15.28
		velocity	6.81	7.85	8.06	8.20	7.66			7.14	6.99	6.81	6.82	6.88	7.25		8.03	7.30	6.87
H1 lead leg	L	strides	24		15		15				17	17	17		105				
Tkachuk, Viktoriya (UKR) (19		time	6.40	10.71	15.01	19.25	23.79		28.59	33.63	38.67	43.94	49.38		55.43	6 / 7			
reaction time	0.209	interval		4.31	4.30	4.24	4.54		4.80	5.04	5.04	5.27	5.44	6.05			12.85	14.38	15.75
		velocity	7.03	8.12	8.14	8.25	7.71		7.29	6.94	6.94	6.64	6.43	6.61	7.22		8.17	7.30	6.67
H1 lead leg	L	strides	22	15	15	15	15		16	16	16	16	17		163				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Sartori, Rebecca (ITA) (1997)		time	6.40	10.71	15.01	19.22	23.72			33.56	38.84	44.41			55.98	3 / 8		
reaction time	0.213	interval		4.31	4.30	4.21	4.50			9.84	5.28	5.57		11.57			12.82	14.34
		velocity	7.03	8.12	8.14	8.31	7.78			7.11	6.63	6.28		6.48	7.15		8.19	7.32
H1 lead leg	L	strides	22	15	15	15	15				17	17	17		133			

Heat 5

date 21-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Knight, Jessie (GBR) (1994)		time	6.53	10.97	15.30	19.53	24.03		28.76	33.56	38.53	43.63	48.71		54.27	8 / 1			
reaction time	0.161	interval		4.44	4.33	4.23	4.50		4.73	4.80	4.97	5.10	5.08	5.56			13.00	14.03	15.15
		velocity	6.89	7.88	8.08	8.27	7.78		7.40	7.29	7.04	6.86	6.89	7.19	7.37		8.08	7.48	6.93
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5				
Little, Shamier (USA) (1995)		time	6.17	10.33	14.50	18.70	23.13		27.73	32.46	37.37	42.63	48.13		54.40	4 / 2			
reaction time	0.215	interval		4.16	4.17	4.20	4.43		4.60	4.73	4.91	5.26	5.50	6.27			12.53	13.76	15.67
		velocity	7.29	8.41	8.39	8.33	7.90		7.61	7.40	7.13	6.65	6.36	6.38	7.35		8.38	7.63	6.70
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	17	19.2	180.2				
Ryzhykova, Anna (UKR) (19		time	6.53	10.83	14.96	19.23	23.73		28.54	33.43	38.46	43.53	48.73		54.70	7 / 3			
reaction time	0.186	interval		4.30	4.13	4.27	4.50		4.81	4.89	5.03	5.07	5.20	5.97			12.70	14.20	15.30
		velocity	6.89	8.14	8.47	8.20	7.78		7.28	7.16	6.96	6.90	6.73	6.70	7.31		8.27	7.39	6.86
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19	172				
Jíchová, Nikoleta (CZE) (200		time	6.43	10.83	15.13	19.50	24.16			33.93	39.03	44.16	49.36		55.10	3 / 4			
reaction time	0.206	interval		4.40	4.30	4.37	4.66			9.77	5.10	5.13	5.20	5.74			13.07	14.43	15.43
		velocity	7.00	7.95	8.14	8.01	7.51			7.16	6.86	6.82	6.73	6.97	7.26		8.03	7.28	6.80
H1 lead leg	R	strides	22	15	15	15	15				16	17	17	21	153				
Ennadi, Noura (MAR) (1999)		time	6.67	11.16	15.50	19.77	24.36			34.03	39.03	44.10	49.26		55.21	2 / 5			
reaction time	0.178	interval		4.49	4.34	4.27	4.59			9.67	5.00	5.07	5.16	5.95			13.10	14.26	15.23
		velocity	6.75	7.80	8.06	8.20	7.63			7.24	7.00	6.90	6.78	6.72	7.25		8.02	7.36	6.89
H1 lead leg	L	strides	24		15	15	15				17	17	17	20	140				

Heat 4

date 21-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.27	10.43	14.50	18.43	22.70		27.23	31.90	36.76	41.80	47.00		53.39	4 / 1			
reaction time	0.206	interval		4.16	4.07	3.93	4.27		4.53	4.67	4.86	5.04	5.20	6.39			12.16	13.47	15.10
		velocity	7.18	8.41	8.60	8.91	8.20		7.73	7.49	7.20	6.94	6.73	6.26	7.49		8.63	7.80	6.95
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.5	171.5				
Tkachuk, Viktoriya (UKR) (19		time	6.37	10.66	15.00	19.23	23.76		28.40	33.26	38.36	43.56	49.03		55.05	6 / 2			
reaction time	0.201	interval		4.29	4.34	4.23	4.53		28.40	4.86	5.10	5.20	5.47	6.02			12.86	14.03	15.77
		velocity	7.06	8.16	8.06	8.27	7.73		1.23	7.20	6.86	6.73	6.40	6.64	7.27		8.16	7.48	6.66
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	17	20	182				
Claes, Hanne (BEL) (1991)		time	6.43	10.76	15.16	19.43	23.96				38.64	43.86	49.16		55.13	1 / 3			
reaction time	0.193	interval		4.33	4.40	4.27	4.53				14.68	5.22	5.30	5.97			13.00		
		velocity	7.00	8.08	7.95	8.20	7.73				7.15	6.70	6.60	6.70	7.26		8.08		
H1 lead leg	R	strides	23		15	15	15		15			17	17	20.5	137.5				
Kloster, Line (NOR) (1990)		time	6.26	10.53	14.70	18.93	23.46		28.16	32.96	38.03	43.46	48.96		55.23	9 / 4			
reaction time	0.170	interval		4.27	4.17	4.23	4.53		4.70	4.80	5.07	5.43	5.50	6.27			12.67	14.03	16.00
		velocity	7.19	8.20	8.39	8.27	7.73		7.45	7.29	6.90	6.45	6.36	6.38	7.24		8.29	7.48	6.56
H1 lead leg	R	strides	22	14	14	15	15		15	15	15	16	16	19.5	176.5				
Demes, Eileen (GER) (1997)		time	6.50	10.73	14.90	19.06	23.56		28.20	33.00	38.06	43.30	48.94		55.29	5 / 5			
reaction time	0.169	interval		4.23	4.17	4.16	4.50		4.64	4.80	5.06	5.24	5.64	6.35	**PB**		12.56	13.94	15.94
		velocity	6.92	8.27	8.39	8.41	7.78		7.54	7.29	6.92	6.68	6.21	6.30	7.23		8.36	7.53	6.59
H1 lead leg	R	strides	22	14	14	14	15		15	15	16	16	17	20	178				

Heat 3

date 21-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Adekoya, Kemi (BRN) (1993)		time	6.40	10.30	14.36	18.37	22.73		27.30	31.90	36.73	42.00	47.38		53.56	8 / 1			
reaction time	0.191	interval		3.90	4.06	4.01	4.36		4.57	4.60	4.83	5.27	5.38	6.18	**AR**		11.97	13.53	15.48
		velocity	7.03	8.97	8.62	8.73	8.03		7.66	7.61	7.25	6.64	6.51	6.47	7.47		8.77	7.76	6.78
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	17	17	19.5	182.5				
Knight, Andrenette (JAM) (1		time	6.20	10.00	14.03	18.13	22.50		27.16	31.98	36.96	42.23	47.60		54.21	5 / 2			
reaction time	0.165	interval		3.80	4.03	4.10	4.37		4.66	4.82	4.98	5.27	5.37	6.61			11.93	13.85	15.62
		velocity	7.26	9.21	8.68	8.54	8.01		7.51	7.26	7.03	6.64	6.52	6.05	7.38		8.80	7.58	6.72
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	17	16	20	184				
Folorunso, Ayomide (ITA) (1		time	6.43	10.40	14.70	18.90	23.36		28.03	32.80	37.63	42.73	47.97		54.30	9 / 3			
reaction time	0.189	interval		3.97	4.30	4.20	4.46		4.67	4.77	4.83	5.10	5.24	6.33			12.47	13.90	15.17
		velocity	7.00	8.82	8.14	8.33	7.85		7.49	7.34	7.25	6.86	6.68	6.32	7.37		8.42	7.55	6.92
H1 lead leg	L	strides	23	15	15	15	16		16	16	16	16	17	20.2	185.2				
Peeters, Cathelijn (NED) (19		time	6.60	10.53	14.66	18.80	23.23		27.83		38.00	43.40	48.83		54.95	2 / 4			
reaction time	0.247	interval		3.93	4.13	4.14	4.43		4.60		10.17	5.40	5.43	6.12			12.20		

		velocity	6.82	8.91	8.47	8.45	7.90	7.61	6.88	6.48	6.45	6.54	7.28		8.61		
H1 lead leg	R	strides	22	15	15		15	155	16	17	17	19.7	291.7				
van der Walt, Zenéy (RSA) (2		time	6.58	10.70	15.03	19.37	23.96	28.63	33.40	38.36	43.67	48.96	55.21	7 / 5			
reaction time	0.203	interval		4.12	4.33	4.34	4.59	4.67	4.77	4.96	5.31	5.29	6.25		12.79	14.03	15.56
		velocity	6.84	8.50	8.08	8.06	7.63	7.49	7.34	7.06	6.59	6.62	6.40	7.25	8.21	7.48	6.75
H1 lead leg	L	strides	23	15	15	15	15	15	15	16	16	16	19.2	180.2			

Heat 2

date 21-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Janieve (JAM) (1993		time	6.47	10.73	14.93	19.03	23.43		28.13	32.93	37.83	42.86	48.20		54.53	4 / 1			
reaction time	0.164	interval		4.26	4.20	4.10	4.40		4.70	4.80	4.90	5.03	5.34	6.33			12.56	13.90	15.27
		velocity	6.96	8.22	8.33	8.54	7.95		7.45	7.29	7.14	6.96	6.55	6.32	7.34		8.36	7.55	6.88
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	16	17	20	184				
Cockrell, Anna (USA) (1997)		time	6.33	10.36	14.43	18.75	23.33		28.00	32.83	37.83	43.06	48.46		54.68	9 / 2			
reaction time	0.211	interval		4.03	4.07	4.32	4.58		4.67	4.83	5.00	5.23	5.40	6.22			12.42	14.08	15.63
		velocity	7.11	8.68	8.60	8.10	7.64		7.49	7.25	7.00	6.69	6.48	6.43	7.32		8.45	7.46	6.72
H1 lead leg	R	strides	22	14	14	15	15		15	15	15	16	16	19.2	176.2				
Woodruff, Gianna (PAN) (19		time	6.46	10.80	15.00	19.23	23.80		28.50	33.40	38.37	43.60	49.03		55.31	2 / 3			
reaction time	0.171	interval		4.34	4.20	4.23	4.57		4.70	4.90	4.97	5.23	5.43	6.28			12.77	14.17	15.63
		velocity	6.97	8.06	8.33	8.27	7.66		7.45	7.14	7.04	6.69	6.45	6.37	7.23		8.22	7.41	6.72
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	17	17	19.7	182.7				
Sutherland, Savannah (CAN		time	6.80	11.26	15.63	19.93	24.43		29.23	34.20	39.23	44.57	50.00		55.85	5 / 4			
reaction time	0.227	interval		4.46	4.37	4.30	4.50		4.80	4.97	5.03	5.34	5.43	5.85			13.13	14.27	15.80
		velocity	6.62	7.85	8.01	8.14	7.78		7.29	7.04	6.96	6.55	6.45	6.84	7.16		8.00	7.36	6.65
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	17	17	20	185				

Heat 1

date 21-Aug-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Clayton, Rushell (JAM) (199		time	6.20	10.20	14.40	18.50	22.63		27.16	31.86	36.87	42.10	47.63		53.97	3 / 1			
reaction time	0.156	interval		4.00	4.20	4.10	4.13		4.53	4.70	5.01	5.23	5.53	6.34			12.30	13.36	15.77
		velocity	7.26	8.75	8.33	8.54	8.47		7.73	7.45	6.99	6.69	6.33	6.31	7.41		8.54	7.86	6.66
H1 lead leg	L	strides	22	14	14	14	14		15	15	16	16	17	19.7	176.7				
Muhammad, Dalilah (USA) (		time	6.03	10.03	14.37	18.67	23.03		27.60	32.36	37.27	42.46	47.80		54.21	5 / 2			
reaction time	0.156	interval		4.00	4.34	4.30	4.36		4.57	4.76	4.91	5.19	5.34	6.41			12.64	13.69	15.44
		velocity	7.46	8.75	8.06	8.14	8.03		7.66	7.35	7.13	6.74	6.55	6.24	7.38		8.31	7.67	6.80
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Krafzik, Carolina (GER) (199		time	6.10	10.00	14.17	18.30	22.57		27.36	32.36	37.36	42.60	48.00		54.53	8 / 3			
reaction time	0.190	interval		3.90	4.17	4.13	4.27		4.79	5.00	5.00	5.24	5.40	6.53			12.20	14.06	15.64
		velocity	7.38	8.97	8.39	8.47	8.20		7.31	7.00	7.00	6.68	6.48	6.13	7.34		8.61	7.47	6.71
H1 lead leg	L	strides	23	15	15	15	15		17	17	17		17	21.7	172.7				
Lehikoinen, Viivi (FIN) (1999)		time	6.23	10.30	14.70		23.46		28.20	33.03	38.00	43.20	48.50		54.65	2 / 4			
reaction time	0.181	interval		4.07	4.40		8.76		4.74	4.83	4.97	5.20	5.30	6.15					15.47
		velocity	7.22	8.60	7.95		7.99		7.38	7.25	7.04	6.73	6.60	6.50	7.32				6.79
H1 lead leg	R	strides	23	15	15	15			16		16	17	17	20	154				
Sartori, Rebecca (ITA) (1997)		time	6.26	10.36	14.80	19.15	23.50		28.26	33.20	38.23	43.40	48.77		54.82	4 / 5			
reaction time	0.203	interval		4.10	4.44	4.35	4.35		4.76	4.94	5.03	5.17	5.37	6.05	**PB**		12.89	14.05	15.57
		velocity	7.19	8.54	7.88	8.05	8.05		7.35	7.09	6.96	6.77	6.52	6.61	7.30		8.15	7.47	6.74
H1 lead leg	L	strides	22	15	15	15	15		16	16	16	16	17	19.7	182.7				

2023 London Athletics Meet (London, GBR)

FINAL

date 23-Jul-23

Omega Timing (2023) - diamond league race analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.25	10.26	14.30	18.43	22.65		27.05	31.58	36.26	41.09	45.88		51.45	6 / 1			
reaction time	0.187	interval		4.01	4.04	4.13	4.22		4.40	4.53	4.68	4.83	4.79	5.57	**AR PB**		12.18	13.15	14.30
		velocity	7.20	8.73	8.66	8.47	8.29		7.95	7.73	7.48	7.25	7.31	7.18	7.77		8.62	7.98	7.34
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	19	170				
Russell, Janieve (JAM) (1993		time	6.33	10.46	14.62	18.91	23.27		27.85	32.60	37.40	42.33	47.49		53.75	5 / 2			
reaction time	0.148	interval		4.13	4.16	4.29	4.36		4.58	4.75	4.80	4.93	5.16	6.26			12.58	13.69	14.89
		velocity	7.11	8.47	8.41	8.16	8.03		7.64	7.37	7.29	7.10	6.78	6.39	7.44		8.35	7.67	7.05
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	16	17	20	184				
Little, Shamier (USA) (1995)		time	6.20	10.29	14.44	18.70	23.07		27.69	32.46	37.30	42.52	47.80		53.76	4 / 3			
reaction time	0.174	interval		4.09	4.15	4.26	4.37		4.62	4.77	4.84	5.22	5.28	5.96			12.50	13.76	15.34
		velocity	7.26	8.56	8.43	8.22	8.01		7.58	7.34	7.23	6.70	6.63	6.71	7.44		8.40	7.63	6.84
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Clayton, Rushell (JAM) (199		time	6.28	10.27	14.42	18.69	23.12		27.72	32.46	37.36	42.43	47.75		53.97	3 / 4			
reaction time	0.131	interval		3.99	4.15	4.27	4.43		4.60	4.74	4.90	5.07	5.32	6.22			12.41	13.77	15.29
		velocity	7.17	8.77	8.43	8.20	7.90		7.61	7.38	7.14	6.90	6.58	6.43	7.41		8.46	7.63	6.87
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19	178				

Knight, Jessie (GBR) (1994)		time	6.40	10.62	14.86	19.17	23.61	28.30	33.08	38.08	43.13	48.24		54.09	7 / 5			
reaction time	0.182	interval		4.22	4.24	4.31	4.44	4.69	4.78	5.00	5.05	5.11	5.85	=PB		12.77	13.91	15.16
		velocity	7.03	8.29	8.25	8.12	7.88	7.46	7.32	7.00	6.93	6.85	6.84	7.40		8.22	7.55	6.93
H1 lead leg	R	strides	22	14	14	14	14	15	15	15		15	19	157				
Tkachuk, Viktoriya (UKR) (19		time	6.33	10.50	14.77	19.07	23.46	28.02	32.80	37.72	42.80	48.02		54.25	2 / 6			
reaction time	0.152	interval		4.17	4.27	4.30	4.39	4.56	4.78	4.92	5.08	5.22	6.23			12.74	13.73	15.22
		velocity	7.11	8.39	8.20	8.14	7.97	7.68	7.32	7.11	6.89	6.70	6.42	7.37		8.24	7.65	6.90
H1 lead leg	L	strides	22	15	15	15	15			16	16	16	20.2	150.2				
Ryzhykova, Anna (UKR) (19		time	6.37	10.42	14.61	18.84	23.18	27.83	32.67	37.61	42.76	48.12		54.53	1 / 7			
reaction time	0.166	interval		4.05	4.19	4.23	4.34	4.65	4.84	4.94	5.15	5.36	6.41			12.47	13.83	15.45
		velocity	7.06	8.64	8.35	8.27	8.06	7.53	7.23	7.09	6.80	6.53	6.24	7.34		8.42	7.59	6.80
H1 lead leg	R	strides	22	14	14	14	14			15	15	16	20	144				
Woodruff, Gianna (PAN) (19		time	6.37	10.35	14.44	18.73	23.19	27.90	32.71	37.67	42.92	48.38		55.52	8 / 8			
reaction time	0.201	interval		3.98	4.09	4.29	4.46	4.71	4.81	4.96	5.25	5.46	7.14			12.36	13.98	15.67
		velocity	7.06	8.79	8.56	8.16	7.85	7.43	7.28	7.06	6.67	6.41	5.60	7.20		8.50	7.51	6.70
H1 lead leg	L	strides	23	15	15	15	15	15	15	16		17	21	167				

2023 USATF National Championships (Eugene, OR) (TV Analysis)

FINAL date 09-Jul-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.27	10.24	14.38	18.68	23.09		27.59	32.36	37.24	42.24	47.48		53.34	5 / 1			
reaction time		interval		3.97	4.14	4.30	4.41		4.50	4.77	4.88	5.00	5.24	5.86			12.41	13.68	15.12
		velocity	7.18	8.82	8.45	8.14	7.94		7.78	7.34	7.17	7.00	6.68	6.83	7.50		8.46	7.68	6.94
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	20.2	182.2				
Muhammad, Dalilah (USA) (		time	6.24	10.21	14.41	18.72	23.19		27.76	32.36	37.24	42.24	47.44		53.53	4 / 2			
reaction time		interval		3.97	4.20	4.31	4.47		4.57	4.60	4.88	5.00	5.20	6.09			12.48	13.64	15.08
		velocity	7.21	8.82	8.33	8.12	7.83		7.66	7.61	7.17	7.00	6.73	6.57	7.47		8.41	7.70	6.96
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19.5	178.5				
Cockrell, Anna (USA) (1997)		time	6.24	10.21	14.51	18.95	23.52		28.16	32.83	37.70	42.87	48.08		54.24	6 / 3			
reaction time		interval		3.97	4.30	4.44	4.57		4.64	4.67	4.87	5.17	5.21	6.16			12.71	13.88	15.25
		velocity	7.21	8.82	8.14	7.88	7.66		7.54	7.49	7.19	6.77	6.72	6.49	7.37		8.26	7.56	6.89
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	16	16	20	175				
Bellamy, Shani'a (USA) (200		time	6.24	10.71	15.08	19.55	24.12		28.86	33.70	38.87	44.04			55.64	3 / 4			
reaction time		interval		4.47	4.37	4.47	4.57		4.74	4.84	5.17	5.17		11.60			13.31	14.15	
		velocity	7.21	7.83	8.01	7.83	7.66		7.38	7.23	6.77	6.77		6.47	7.19		7.89	7.42	
H1 lead leg	L	strides	23	15	15	15	15			15		16			114				
Tate, Cassandra (USA) (1990		time	6.44	10.51	14.78	19.28	23.82		28.46	33.23	38.40				56.09	7 / 5			
reaction time		interval		4.07	4.27	4.50	4.54		4.64	4.77	5.17			17.69			12.84	13.95	
		velocity	6.99	8.60	8.20	7.78	7.71		7.54	7.34	6.77			5.94	7.13		8.18	7.53	
H1 lead leg	R	strides	22	14	14	15	15		15	15	15				125				
Hoffman, Lauren (USA) (199		time	6.54	10.64	14.95	19.42	23.99		28.73	33.66	38.77				56.13	8 / 6			
reaction time		interval		4.10	4.31	4.47	4.57		4.74	4.93	5.11			17.36			12.88	14.24	
		velocity	6.88	8.54	8.12	7.83	7.66		7.38	7.10	6.85			6.05	7.13		8.15	7.37	
H1 lead leg	L	strides	23	15	15	16	16		16	18	18				137				
Langley-Walker, Madison (U		time	6.54	10.88	15.48	20.02	24.75		29.83		40.24				56.94	2 / 7			
reaction time		interval		4.34	4.60	4.54	4.73		5.08		10.41			16.70			13.48		
		velocity	6.88	8.06	7.61	7.71	7.40		6.89		6.72			6.29	7.02		7.79		
H1 lead leg	R	strides	24	16	17	16	16								89				
Barber, Kaila (USA) (1993)		time	6.44	10.64	15.05	19.65	24.32		29.26		39.57				57.51	1 / 8			
reaction time		interval		4.20	4.41	4.60	4.67		4.94		10.31			17.94			13.21		
		velocity	6.99	8.33	7.94	7.61	7.49		7.09		6.79			5.85	6.96		7.95		
H1 lead leg	R	strides	23	15	15	15	15					17			100				

2023 Bauhaus Galan (Stockholm, SWE)

National FINAL date 02-Jul-23

Omega Timing (2023) - diamond league race analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Krafzik, Carolina (GER) (199		time	6.24	10.31	14.49	18.83	23.37		28.15	33.09	38.17	43.50	49.09		55.71	5 / 1			
reaction time	0.178	interval		4.07	4.18	4.34	4.54		4.78	4.94	5.08	5.33	5.59	6.62			12.59	14.26	16.00
		velocity	7.21	8.60	8.37	8.06	7.71		7.32	7.09	6.89	6.57	6.26	6.04	7.18		8.34	7.36	6.56
H1 lead leg		strides																	
Granat, Moa (SWE) (2004)		time	6.41	10.61	14.97	19.44	24.01		28.75	33.74	38.97	44.47	50.29		57.34	4 / 2			
reaction time	0.144	interval		4.20	4.36	4.47	4.57		4.74	4.99	5.23	5.50	5.82	7.05			13.03	14.30	16.55
		velocity	7.02	8.33	8.03	7.83	7.66		7.38	7.01	6.69	6.36	6.01	5.67	6.98		8.06	7.34	6.34
H1 lead leg		strides																	
Zupin, Agata (SLO) (1998)		time	6.31	10.60	14.99	19.53	24.24		29.08	34.14	39.49	45.24	51.26		58.18	7 / 3			
reaction time	0.164	interval		4.29	4.39	4.54	4.71		4.84	5.06	5.35	5.75	6.02	6.92			13.22	14.61	17.12

		velocity	7.13	8.16	7.97	7.71	7.43	7.23	6.92	6.54	6.09	5.81	5.78	6.88		7.94	7.19	6.13
H1 lead leg		strides																
Korzuch, Julia (POL) (1995)		time	6.67	11.13	15.63	20.23	24.98	29.94	35.14	40.54	46.15	52.08		58.94	3 / 4			
reaction time	0.138	interval		4.46	4.50	4.60	4.75	4.96	5.20	5.40	5.61	5.93	6.86			13.56	14.91	16.94
		velocity	6.75	7.85	7.78	7.61	7.37	7.06	6.73	6.48	6.24	5.90	5.83	6.79		7.74	7.04	6.20
H1 lead leg		strides																
Karlsson, Hanna (SWE) (200		time	6.77	11.27	15.84	20.56	25.50	30.64	35.92	41.48	47.32	53.34		60.37	6 / 5			
reaction time	0.163	interval		4.50	4.57	4.72	4.94	5.14	5.28	5.56	5.84	6.02	7.03			13.79	15.36	17.42
		velocity	6.65	7.78	7.66	7.42	7.09	6.81	6.63	6.29	5.99	5.81	5.69	6.63		7.61	6.84	6.03
H1 lead leg		strides																
Svantesson, Ebba (SWE) (19		time	6.70	11.32	16.01	20.76	25.75	31.01	36.48	42.17	48.06	54.20		61.38	2 / 6			
reaction time	0.176	interval		4.62	4.69	4.75	4.99	5.26	5.47	5.69	5.89	6.14	7.18			14.06	15.72	17.72
		velocity	6.72	7.58	7.46	7.37	7.01	6.65	6.40	6.15	5.94	5.70	5.57	6.52		7.47	6.68	5.93
H1 lead leg		strides																
Landin, Tyra (SWE) (2002)		time	6.89	11.53	16.34	21.27	26.33	31.45	36.69	42.20	48.04	54.43		61.90	8 / 7			
reaction time	0.174	interval		4.64	4.81	4.93	5.06	5.12	5.24	5.51	5.84	6.39	7.47			14.38	15.42	17.74
		velocity	6.53	7.54	7.28	7.10	6.92	6.84	6.68	6.35	5.99	5.48	5.35	6.46		7.30	6.81	5.92
H1 lead leg		strides																
Sund, Maja (SWE) (2001)		time	7.12	11.99	17.00	22.12	27.33	32.79	38.49	44.26	50.42	56.44		63.29	1 / 8			
reaction time	0.171	interval		4.87	5.01	5.12	5.21	5.46	5.70	5.77	6.16	6.02	6.85			15.00	16.37	17.95
		velocity	6.32	7.19	6.99	6.84	6.72	6.41	6.14	6.07	5.68	5.81	5.84	6.32		7.00	6.41	5.85
H1 lead leg		strides																

2023 Athletissima (Lausanne, SUI)

FINAL date 30-Jun-23 *Omega Timing (2023) - diamond league race analysis*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.14	10.09	14.11	18.16	22.38		26.76	31.43	36.35	41.36	46.61		52.76	5 / 1			
reaction time	0.169	interval		3.95	4.02	4.05	4.22		4.38	4.67	4.92	5.01	5.25	6.15			12.02	13.27	15.18
		velocity	7.33	8.86	8.71	8.64	8.29		7.99	7.49	7.11	6.99	6.67	6.50	7.58		8.74	7.91	6.92
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	19.7	170.7				
Lehikoinen, Viivi (FIN) (1999)		time	6.29	10.29	14.42	18.59	22.96		27.55	32.31	37.38	42.67	48.08		54.67	4 / 2			
reaction time	0.208	interval		4.00	4.13	4.17	4.37		4.59	4.76	5.07	5.29	5.41	6.59			12.30	13.72	15.77
		velocity	7.15	8.75	8.47	8.39	8.01		7.63	7.35	6.90	6.62	6.47	6.07	7.32		8.54	7.65	6.66
H1 lead leg	R	strides	23	15					16	16	16	17	17	21	141				
Folorunso, Ayomide (ITA) (1		time	6.26	10.41	14.66	19.04	23.53		28.17	33.01	38.07	43.23	48.66		55.12	8 / 3			
reaction time	0.222	interval		4.15	4.25	4.38	4.49		4.64	4.84	5.06	5.16	5.43	6.46			12.78	13.97	15.65
		velocity	7.19	8.43	8.24	7.99	7.80		7.54	7.23	6.92	6.78	6.45	6.19	7.26		8.22	7.52	6.71
H1 lead leg	L	strides	23	15			15		15	16	16	17	17	21	155				
Knight, Jessie (GBR) (1994)		time	6.42	10.66	15.02	19.36	23.85		28.48	33.36	38.52	43.79	49.13		55.13	3 / 4			
reaction time	0.178	interval		4.24	4.36	4.34	4.49		4.63	4.88	5.16	5.27	5.34	6.00			12.94	14.00	15.77
		velocity	7.01	8.25	8.03	8.06	7.80		7.56	7.17	6.78	6.64	6.55	6.67	7.26		8.11	7.50	6.66
H1 lead leg	R	strides	22	14			14		15	15		16	16	19	131				
Ryzhykova, Anna (UKR) (19		time	6.46	10.60	14.87	19.22	23.71		28.44	33.37	38.48	43.73	49.21		55.41	2 / 5			
reaction time	0.175	interval		4.14	4.27	4.35	4.49		4.73	4.93	5.11	5.25	5.48	6.20			12.76	14.15	15.84
		velocity	6.97	8.45	8.20	8.05	7.80		7.40	7.10	6.85	6.67	6.39	6.45	7.22		8.23	7.42	6.63
H1 lead leg	R	strides	22	14			14		15	15		15	16	19.5	130.5				
Tkachuk, Viktoriya (UKR) (19		time	6.24	10.36	14.59	18.93	23.40		28.01	32.85	38.00	43.44	49.07		55.69	7 / 6			
reaction time	0.196	interval		4.12	4.23	4.34	4.47		4.61	4.84	5.15	5.44	5.63	6.62			12.69	13.92	16.22
		velocity	7.21	8.50	8.27	8.06	7.83		7.59	7.23	6.80	6.43	6.22	6.04	7.18		8.27	7.54	6.47
H1 lead leg	L	strides	22	15		15	15		15	15	16	18	17	21	169				
Nielsen, Lina (GBR) (1996)		time	6.31	10.46	14.87	19.35	23.94		28.71	33.77	39.21	44.74	50.29		56.62	1 / 7			
reaction time	0.141	interval		4.15	4.41	4.48	4.59		4.77	5.06	5.44	5.53	5.55	6.33			13.04	14.42	16.52
		velocity	7.13	8.43	7.94	7.81	7.63		7.34	6.92	6.43	6.33	6.31	6.32	7.06		8.05	7.28	6.36
H1 lead leg	L	strides	22	15			15		15	15		16	16		114				
Woodruff, Gianna (PAN) (19		time	6.42	10.48	14.75	19.13	23.61		28.11	32.91	38.70	44.01	49.67		56.68	6 / 8			
reaction time	0.227	interval		4.06	4.27	4.38	4.48		4.50	4.80	5.79	5.31	5.66	7.01			12.71	13.78	16.76
		velocity	7.01	8.62	8.20	7.99	7.81		7.78	7.29	6.04	6.59	6.18	5.71	7.06		8.26	7.62	6.26
H1 lead leg	L	strides	22	15	15				15	15	17	17	17		133				

2023 Bislett Games (Oslo, NOR)

FINAL date 15-Jun-23 *Omega Timing (2023) - diamond league race analysis*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.29	10.36	14.52	18.74	23.05		27.48	32.11	36.92	41.78	46.69		52.30	5 / 1			
reaction time	0.172	interval		4.07	4.16	4.22	4.31		4.43	4.63	4.81	4.86	4.91	5.61			12.45	13.37	14.58
		velocity	7.15	8.60	8.41	8.29	8.12		7.90	7.56	7.28	7.20	7.13	7.13	7.65		8.43	7.85	7.20
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	18.5	169.5				

Clayton, Rushell (JAM) (199		time	6.34	10.36	14.47	18.72	23.10	27.70	32.46	37.42	42.53	47.76		53.84	6 / 2			
reaction time	0.141	interval		4.02	4.11	4.25	4.38	4.60	4.76	4.96	5.11	5.23	6.08			12.38	13.74	15.30
		velocity	7.10	8.71	8.52	8.24	7.99	7.61	7.35	7.06	6.85	6.69	6.58	7.43		8.48	7.64	6.86
H1 lead leg	L	strides	22	15	14	14	15	15	15	16	16	16	20	178				
Woodruff, Gianna (PAN) (19		time	6.36	10.44	14.72	19.15	23.66	28.29	33.11	38.17	43.30	48.43		54.46	4 / 3			
reaction time	0.198	interval		4.08	4.28	4.43	4.51	4.63	4.82	5.06	5.13	5.13	6.03			12.79	13.96	15.32
		velocity	7.08	8.58	8.18	7.90	7.76	7.56	7.26	6.92	6.82	6.82	6.63	7.34		8.21	7.52	6.85
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	17	19	180				
Russell, Janieve (JAM) (1993		time	6.39	10.53	14.73	19.08	23.55	28.27	33.05	38.08	43.27	48.56		54.91	3 / 4			
reaction time	0.135	interval		4.14	4.20	4.35	4.47	4.72	4.78	5.03	5.19	5.29	6.35			12.69	13.97	15.51
		velocity	7.04	8.45	8.33	8.05	7.83	7.42	7.32	6.96	6.74	6.62	6.30	7.28		8.27	7.52	6.77
H1 lead leg	L	strides	23	15	15	15	15	16	16	16	17	17	20	185				
Hall, Anna (USA) (2001)		time	6.28	10.39	14.61	18.91	23.42	28.12	33.02	38.01	43.32	49.09		55.28	8 / 5			
reaction time	0.212	interval		4.11	4.22	4.30	4.51	4.70	4.90	4.99	5.31	5.77	6.19			12.63	14.11	16.07
		velocity	7.17	8.52	8.29	8.14	7.76	7.45	7.14	7.01	6.59	6.07	6.46	7.24		8.31	7.44	6.53
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	17			139				
Tkachuk, Viktoriya (UKR) (19		time	6.29	10.55	14.75	19.07	23.57	28.28	33.22	38.40	43.70	49.10		55.36	7 / 6			
reaction time	0.171	interval		4.26	4.20	4.32	4.50	4.71	4.94	5.18	5.30	5.40	6.26			12.78	14.15	15.88
		velocity	7.15	8.22	8.33	8.10	7.78	7.43	7.09	6.76	6.60	6.48	6.39	7.23		8.22	7.42	6.61
H1 lead leg	L	strides	24	15	15	15	15	15	16	16	17			148				
Ryzhykova, Anna (UKR) (19		time	6.52	10.68	14.96	19.34	23.87	28.65	33.54	38.57	43.80	49.25		55.53	1 / 7			
reaction time	0.202	interval		4.16	4.28	4.38	4.53	4.78	4.89	5.03	5.23	5.45	6.28			12.82	14.20	15.71
		velocity	6.90	8.41	8.18	7.99	7.73	7.32	7.16	6.96	6.69	6.42	6.37	7.20		8.19	7.39	6.68
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	16		154				
Kloster, Line (NOR) (1990)		time	6.27	10.42	14.75	19.10	23.57	28.22	33.14	38.50	43.91	49.63		56.44	2 / 8			
reaction time	0.150	interval		4.15	4.33	4.35	4.47	4.65	4.92	5.36	5.41	5.72	6.81			12.83	14.04	16.49
		velocity	7.18	8.43	8.08	8.05	7.83	7.53	7.11	6.53	6.47	6.12	5.87	7.09		8.18	7.48	6.37
H1 lead leg	R	strides	22	15	15	15	15	15	16	16	17	17		163				

2023 NCAA Championships (Austin, TX) (TV Analysis)

FINAL date 10-Jun-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sutherland, Savannah (CAN		time	6.54	10.77	15.11	19.48	23.95		28.63	33.43	38.40	43.54	48.65		54.45	7 / 1			
reaction time		interval		4.23	4.34	4.37	4.47		4.68	4.80	4.97	5.14	5.11	5.80	PB		12.94	13.95	15.22
		velocity	6.88	8.27	8.06	8.01	7.83		7.48	7.29	7.04	6.81	6.85	6.90	7.35		8.11	7.53	6.90
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	20	182				
Russell, Masai (USA) (2000)		time	6.30	10.67	15.15	19.75	24.52		29.39	34.27	39.21	44.18	49.08		54.66	5 / 2			
reaction time		interval		4.37	4.48	4.60	4.77		4.87	4.88	4.94	4.97	4.90	5.58	PB		13.45	14.52	14.81
		velocity	7.14	8.01	7.81	7.61	7.34		7.19	7.17	7.09	7.04	7.14	7.17	7.32		7.81	7.23	7.09
H1 lead leg	R	strides	24	16	16	16	16		16	16	17	17	17	21	192				
Pickett, Chastity (USA) (2001		time	6.50	10.74	15.01	19.52	24.09		28.76	33.56	38.50	43.54	48.75		54.86	8 / 3			
reaction time		interval		4.24	4.27	4.51	4.57		4.67	4.80	4.94	5.04	5.21	6.11	PB		13.02	14.04	15.19
		velocity	6.92	8.25	8.20	7.76	7.66		7.49	7.29	7.09	6.94	6.72	6.55	7.29		8.06	7.48	6.91
H1 lead leg	L	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2				
Overholt, Brooke (CAN) (200		time	6.50	10.67	14.98	19.48	24.12		28.96	33.90	39.00	44.21	49.52		55.50	4 / 4			
reaction time		interval		4.17	4.31	4.50	4.64		4.84	4.94	5.10	5.21	5.31	5.98	PB		12.98	14.42	15.62
		velocity	6.92	8.39	8.12	7.78	7.54		7.23	7.09	6.86	6.72	6.59	6.69	7.21		8.09	7.28	6.72
H1 lead leg	L	strides	24	15	15	15	15		16	16	17	17	17	20	187				
Bellamy, Shani'a (USA) (2002		time	6.44	10.51	14.85	19.35	24.06		28.86	33.96	39.14	44.42	49.71		55.58	1 / 5			
reaction time		interval		4.07	4.34	4.50	4.71		4.80	5.10	5.18	5.28	5.29	5.87	PB		12.91	14.61	15.75
		velocity	6.99	8.60	8.06	7.78	7.43		7.29	6.86	6.76	6.63	6.62	6.81	7.20		8.13	7.19	6.67
H1 lead leg	R	strides	22	14	15	15	15		15	16	16	16	16	18.5	178.5				
Graham, Lashanna (JAM) (2		time	6.71	10.94	15.31	19.99	24.76		29.56	34.47	39.54	44.41	49.75		55.59	9 / 6			
reaction time		interval		4.23	4.37	4.68	4.77		4.80	4.91	5.07	4.87	5.34	5.84	PB		13.28	14.48	15.28
		velocity	6.71	8.27	8.01	7.48	7.34		7.29	7.13	6.90	7.19	6.55	6.85	7.20		7.91	7.25	6.87
H1 lead leg	L	strides	22.14	15	15	15	15		15	15	16	15	16		159.14				
Wilson, Britton (USA) (2000)		time	6.87	11.14	15.58	20.09	24.69		29.33	34.27	39.34	44.51	49.75		55.92	6 / 7			
reaction time		interval		4.27	4.44	4.51	4.60		4.64	4.94	5.07	5.17	5.24	6.17			13.22	14.18	15.48
		velocity	6.55	8.20	7.88	7.76	7.61		7.54	7.09	6.90	6.77	6.68	6.48	7.15		7.94	7.40	6.78
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16		162				
Glynn, Abbey (USA) (2001)		time	6.74	11.04	15.55	20.18	24.89		29.66	34.60	39.57	44.85	50.18		56.01	3 / 8			
reaction time		interval		4.30	4.51	4.63	4.71		4.77	4.94	4.97	5.28	5.33	5.83			13.44	14.42	15.58
		velocity	6.68	8.14	7.76	7.56	7.43		7.34	7.09	7.04	6.63	6.57	6.86	7.14		7.81	7.28	6.74
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	17	17		161				
Townsend, Sydni (USA) (200		time	6.50	10.77	15.25	19.82	24.59		29.43	34.43	39.47	44.75	49.98		56.27	2 / 9			

reaction time		interval		4.27	4.48	4.57	4.77	4.84	5.00	5.04	5.28	5.23	6.29			13.32	14.61	15.55
		velocity	6.92	8.20	7.81	7.66	7.34	7.23	7.00	6.94	6.63	6.69	6.36	7.11		7.88	7.19	6.75
H1 lead leg	L	strides	23	16	16	16	16	17	18	17	18	18		175				

2023 Golden Gala Pietro Mennea (Firenze, ITA)

FINAL date 02-Jun-23 *Omega Timing (2023) - diamond league race analysis*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.27	10.35	14.48	18.63	22.90		27.28	31.96	36.76	41.63	46.64		52.43	6 / 1			
reaction time	0.170	interval		4.08	4.13	4.15	4.27		4.38	4.68	4.80	4.87	5.01	5.79			12.36	13.33	14.68
		velocity	7.18	8.58	8.47	8.43	8.20		7.99	7.48	7.29	7.19	6.99	6.91	7.63		8.50	7.88	7.15
H1 lead leg	L	strides	22	14	14	14	14		14	14	15	15	15	19	170				
Little, Shamier (USA) (1995)		time	6.18	10.35	14.66	19.04	23.50		27.98	32.62	37.36	42.21	47.30		53.38	4 / 2			
reaction time	0.153	interval		4.17	4.31	4.38	4.46		4.48	4.64	4.74	4.85	5.09	6.08			12.86	13.58	14.68
		velocity	7.28	8.39	8.12	7.99	7.85		7.81	7.54	7.38	7.22	6.88	6.58	7.49		8.16	7.73	7.15
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	15	16	19.2	178.2				
Hall, Anna (USA) (2001)		time	6.38	10.57	14.81	19.01	23.43		27.99	32.69	37.65	42.68	48.03		54.42	8 / 3			
reaction time	0.182	interval		4.19	4.24	4.20	4.42		4.56	4.70	4.96	5.03	5.35	6.39	PB		12.63	13.68	15.34
		velocity	7.05	8.35	8.25	8.33	7.92		7.68	7.45	7.06	6.96	6.54	6.26	7.35		8.31	7.68	6.84
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	15	17	19.5	173.5				
Woodruff, Gianna (PAN) (19		time	6.32	10.39	14.66	19.04	23.51		28.04	32.82	37.81	42.96	48.30		54.59	3 / 4			
reaction time	0.184	interval		4.07	4.27	4.38	4.47		4.53	4.78	4.99	5.15	5.34	6.29			12.72	13.78	15.48
		velocity	7.12	8.60	8.20	7.99	7.83		7.73	7.32	7.01	6.80	6.55	6.36	7.33		8.25	7.62	6.78
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	19.5	180.5				
Tkachuk, Viktoriya (UKR) (19		time	6.24	10.36	14.57	18.83	23.25		27.75	32.60	37.67	42.88	48.33		54.71	7 / 5			
reaction time	0.167	interval		4.12	4.21	4.26	4.42		4.50	4.85	5.07	5.21	5.45	6.38			12.59	13.77	15.73
		velocity	7.21	8.50	8.31	8.22	7.92		7.78	7.22	6.90	6.72	6.42	6.27	7.31		8.34	7.63	6.68
H1 lead leg	L	strides	22	15	15	15	15		15	16	161	17	17	20.2	328.2				
Clayton, Rushell (JAM) (199		time	6.38	10.55	14.82	19.13	23.62		28.21	33.05	38.04	43.26	48.53		54.71	5 / 6			
reaction time	0.133	interval		4.17	4.27	4.31	4.49		4.59	4.84	4.99	5.22	5.27	6.18			12.75	13.92	15.48
		velocity	7.05	8.39	8.20	8.12	7.80		7.63	7.23	7.01	6.70	6.64	6.47	7.31		8.24	7.54	6.78
H1 lead leg	L	strides	23	15	14	14	15		15	15	16	16	16	19	178				
Folorunso, Ayomide (ITA) (1		time	6.25	10.33	14.61	18.87	23.23		27.69	32.49	37.55	42.91	48.64		55.34	2 / 7			
reaction time	0.190	interval		4.08	4.28	4.26	4.36		4.46	4.80	5.06	5.36	5.73	6.70			12.62	13.62	16.15
		velocity	7.20	8.58	8.18	8.22	8.03		7.85	7.29	6.92	6.53	6.11	5.97	7.23		8.32	7.71	6.50
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	17	21.2	184.2				
Ryzhykova, Anna (UKR) (19		time	6.43	10.55	14.83	19.21	23.74		28.48	33.45	38.49	43.79	49.38		55.99	1 / 8			
reaction time	0.155	interval		4.12	4.28	4.38	4.53		4.74	4.97	5.04	5.30	5.59	6.61			12.78	14.24	15.93
		velocity	7.00	8.50	8.18	7.99	7.73		7.38	7.04	6.94	6.60	6.26	6.05	7.14		8.22	7.37	6.59
H1 lead leg	R	strides	22	14	14	14	14					16	16	20	130				

2023 Meeting International Mohammed VI d'Athlétisme (Rabat, MAR)

FINAL date 28-May-23 *Omega Timing (2023) - diamond league race analysis*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.18	10.20	14.39	18.71	23.17		27.77	32.73	37.51	42.57	47.93		53.95	4 / 1			
reaction time	0.183	interval		4.02	4.19	4.32	4.46		4.60	4.96	4.78	5.06	5.36	6.02			12.53	14.02	15.20
		velocity	7.28	8.71	8.35	8.10	7.85		7.61	7.06	7.32	6.92	6.53	6.64	7.41		8.38	7.49	6.91
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	15	16	19.5	178.5				
Clayton, Rushell (JAM) (199		time	6.23	10.22	14.35	18.59	23.04		27.65	32.52	37.58	42.72	47.99		54.15	5 / 2			
reaction time	0.142	interval		3.99	4.13	4.24	4.45		4.61	4.87	5.06	5.14	5.27	6.16			12.36	13.93	15.47
		velocity	7.22	8.77	8.47	8.25	7.87		7.59	7.19	6.92	6.81	6.64	6.49	7.39		8.50	7.54	6.79
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.2	181.2				
Salmon, Shiaan (JAM) (1999		time	6.21	10.35	14.78	19.27	23.88		28.56	33.36	38.25	43.16	48.18		54.42	3 / 3			
reaction time	0.178	interval		4.14	4.43	4.49	4.61		4.68	4.80	4.89	4.91	5.02	6.24			13.06	14.09	14.82
		velocity	7.25	8.45	7.90	7.80	7.59		7.48	7.29	7.16	7.13	6.97	6.41	7.35		8.04	7.45	7.09
H1 lead leg	R	strides	21	15	15	14	15		15	16	16	16	16	19.7	178.7				
Russell, Janieve (JAM) (1993		time	6.41	10.62	14.90	19.33	23.88		28.56	33.51	38.63	43.85	49.12		55.41	7 / 4			
reaction time	0.160	interval		4.21	4.28	4.43	4.55		4.68	4.95	5.12	5.22	5.27	6.29			12.92	14.18	15.61
		velocity	7.02	8.31	8.18	7.90	7.69		7.48	7.07	6.84	6.70	6.64	6.36	7.22		8.13	7.40	6.73
H1 lead leg	L	strides	23	15	15	15	15		16	16			17	20	152				
Muhammad, Dalilah (USA) (		time	6.18	10.28	14.58	19.13	23.79		28.53	33.54	38.67	43.85	49.26		55.72	6 / 5			
reaction time	0.170	interval		4.10	4.30	4.55	4.66		4.74	5.01	5.13	5.18	5.41	6.46			12.95	14.41	15.72
		velocity	7.28	8.54	8.14	7.69	7.51		7.38	6.99	6.82	6.76	6.47	6.19	7.18		8.11	7.29	6.68
H1 lead leg	R	strides	22	14	14	15	15		15	15			16	20	146				
Woodruff, Gianna (PAN) (19		time	6.34	10.32	14.55	19.04	23.67		28.45	33.58	38.86	44.14	49.53		55.74	2 / 6			
reaction time	0.201	interval		3.98	4.23	4.49	4.63		4.78	5.13	5.28	5.28	5.39	6.21			12.70	14.54	15.95
		velocity	7.10	8.79	8.27	7.80	7.56		7.32	6.82	6.63	6.63	6.49	6.44	7.18		8.27	7.22	6.58
H1 lead leg	R	strides	22	14		15	15		15	16			16	19	132				

Ennadi, Noura (MAR) (1999)		time	6.44	10.66	15.02	19.55	24.31	29.31	34.37	39.41	44.52	49.71		55.83	1 / 7			
reaction time	0.183	interval		4.22	4.36	4.53	4.76	5.00	5.06	5.04	5.11	5.19	6.12	PB		13.11	14.82	15.34
		velocity	6.99	8.29	8.03	7.73	7.35	7.00	6.92	6.94	6.85	6.74	6.54	7.16		8.01	7.09	6.84
H1 lead leg	R	strides	23	15		15	15	17			17	17	20	139				
Ryzhykova, Anna (UKR) (19		time	6.61	10.93	15.33	19.84	24.51	29.40	34.51	39.74	45.11	50.64		56.97	8 / 8			
reaction time	0.268	interval		4.32	4.40	4.51	4.67	4.89	5.11	5.23	5.37	5.53	6.33			13.23	14.67	16.13
		velocity	6.81	8.10	7.95	7.76	7.49	7.16	6.85	6.69	6.52	6.33	6.32	7.02		7.94	7.16	6.51
H1 lead leg	R	strides	22	14	14	14	14	15	15		16	16	19	159				

2023 IFAM Oordegem (Oordegem, BEL) (TV Analysis)

FINAL date 27-May-23

Henson (2023) - Athlete First: 2023 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.40	10.53	14.73	19.03	23.40		27.96	32.67	37.43		47.63		53.12	6 / 1			
reaction time		interval		4.13	4.20	4.30	4.37		4.56	4.71	4.76		10.20	5.49			12.63	13.64	14.96
		velocity	7.03	8.47	8.33	8.14	8.01		7.68	7.43	7.35		6.86	7.29	7.53		8.31	7.70	7.02
H1 lead leg	L	strides	22	14	14	14	14		14	14	15		16	19	156				

2022 Weltklasse (Zürich, SUI) (TV Analysis)

FINAL date 08-Sep-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.37	10.41	14.55	18.72	23.06	24.86	27.56	32.14	36.83	41.71	46.98		53.03	6 / 1			
reaction time	0.189	interval		4.04	4.14	4.17	4.34		4.50	4.58	4.69	4.88	5.27	6.05			12.35	13.42	14.84
		velocity	7.06	8.66	8.45	8.39	8.06	8.05	7.78	7.64	7.46	7.17	6.64	6.61	7.54		8.50	7.82	7.08
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	16	19	177				
Woodruff, Gianna (PAN) (19		time	6.31	10.28			23.26	25.12	27.76	32.46		42.27	47.57		53.72	3 / 2			
reaction time	0.203	interval		3.97			12.98		4.50	4.70		9.81	5.30	6.15					15.11
		velocity	7.13	8.82			8.09	7.96	7.78	7.45		7.14	6.60	6.50	7.45				6.95
H1 lead leg	L	strides	23	15					15	15			16	19.2	103.2				
Russell, Janieve (JAM) (1993		time	6.41	10.58		19.22	23.56	25.35	28.03	32.63	37.37	42.31	47.51		53.77	4 / 3			
reaction time	0.155	interval		4.17		8.64	4.34		4.47	4.60	4.74	4.94	5.20	6.26			12.81	13.41	14.88
		velocity	7.02	8.39		8.10	8.06	7.89	7.83	7.61	7.38	7.09	6.73	6.39	7.44		8.20	7.83	7.06
H1 lead leg	R	strides	23	15			15		15	15		16	17	20	136				
Muhammad, Dalilah (USA) (		time	6.04	10.01	14.18	18.42	22.82	24.64	27.29	31.87	36.70	41.87	47.31		53.83	5 / 4			
reaction time	0.150	interval		3.97	4.17	4.24	4.40		4.47	4.58	4.83	5.17	5.44	6.52			12.38	13.45	15.44
		velocity	7.45	8.82	8.39	8.25	7.95	8.12	7.83	7.64	7.25	6.77	6.43	6.13	7.43		8.48	7.81	6.80
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	20	179				
Clayton, Rushell (JAM) (199		time	6.34	10.44		18.85	23.25	25.11	27.79	32.60	37.47	42.84	48.15		54.25	7 / 5			
reaction time	0.148	interval		4.10		8.41	4.40		4.54	4.81	4.87	5.37	5.31	6.10			12.51	13.75	15.55
		velocity	7.10	8.54		8.32	7.95	7.96	7.71	7.28	7.19	6.52	6.59	6.56	7.37		8.39	7.64	6.75
H1 lead leg	R	strides	23	15			16		15	16	16	17	17	19.2	154.2				
Tkachuk, Viktoriya (UKR) (19		time	6.27	10.38			23.19	25.05	27.73	32.43	37.40	42.67	48.29		54.79	8 / 6			
reaction time	0.216	interval		4.11			12.81		4.54	4.70	4.97	5.27	5.62	6.50					15.86
		velocity	7.18	8.52			8.20	7.98	7.71	7.45	7.04	6.64	6.23	6.15	7.30				6.62
H1 lead leg	L	strides	22	15					15	15	16	16	17	20.5	136.5				
Ryzhykova, Anna (UKR) (19		time	6.34	10.38			23.49	25.42	28.26	33.10		43.31	48.68		55.06	2 / 7			
reaction time	0.167	interval		4.04			13.11		4.77	4.84		10.21	5.37	6.38					15.58
		velocity	7.10	8.66			8.01	7.87	7.34	7.23		6.86	6.52	6.27	7.26				6.74
H1 lead leg	R	strides	22	14					15	15			16	19.7	101.7				
Folorunso, Ayomide (ITA) (1		time	6.34	10.44			23.46	25.33	28.03	32.86		43.21	48.88		55.86	1 / 8			
reaction time	0.179	interval		4.10			13.02		4.57	4.83		10.35	5.67	6.98					16.02
		velocity	7.10	8.54			8.06	7.90	7.66	7.25		6.76	6.17	5.73	7.16				6.55
H1 lead leg	L	strides	23	15			15		16	16			17	22	124				

2022 Athletissima (Lausanne, SUI) (TV Analysis)

FINAL date 26-Aug-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.27	10.36	14.55	18.97	23.40	25.25	28.00	32.67	37.34	42.30	47.33		52.95	5 / 1			
reaction time	0.155	interval		4.09	4.19	4.42	4.43		4.60	4.67	4.67	4.96	5.03	5.62			12.70	13.70	14.66
		velocity	7.18	8.56	8.35	7.92	7.90	7.92	7.61	7.49	7.49	7.06	6.96	7.12	7.55		8.27	7.66	7.16
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				
Russell, Janieve (JAM) (1993		time	6.40	10.53		19.17	23.56	25.35	28.13	32.93	37.67	42.70	47.87		53.92	2 / 2			
reaction time	0.167	interval		4.13		8.64	4.39		4.57	4.80	4.74	5.03	5.17	6.05			12.77	13.76	14.94
		velocity	7.03	8.47		8.10	7.97	7.89	7.66	7.29	7.38	6.96	6.77	6.61	7.42		8.22	7.63	7.03
H1 lead leg	R	strides	23	15			15		16	16	16	17	17	20	155				
Knight, Andrenette (JAM) (1		time	6.16	10.14		18.56	23.02	24.86	27.57	32.30	37.16	42.30	47.76		54.33	1 / 3			
reaction time	0.148	interval		3.98		8.42	4.46		4.55	4.73	4.86	5.14	5.46	6.57			12.40	13.74	15.46
		velocity	7.31	8.79		8.31	7.85	8.05	7.69	7.40	7.20	6.81	6.41	6.09	7.36		8.47	7.64	6.79
H1 lead leg	R	strides	22	15			15		15	16	16	16	17	20	152				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Ryzhykova, Anna (UKR) (19		time	6.40	10.50		19.06	23.53	25.43	28.27	33.07	37.94	43.16	48.47		54.59	3 / 4			
reaction time	0.197	interval		4.10		8.56	4.47		4.74	4.80	4.87	5.22	5.31	6.12			12.66	14.01	15.40
		velocity	7.03	8.54		8.18	7.83	7.86	7.38	7.29	7.19	6.70	6.59	6.54	7.33		8.29	7.49	6.82
H1 lead leg	R	strides	22	14			14		15	15	15	16	16	19.2	146.2				
Woodruff, Gianna (PAN) (19		time	6.33	10.26		18.90	23.36	25.26	27.97	32.86	37.90	43.13	48.56		54.97	8 / 5			
reaction time	0.193	interval		3.93		8.64	4.46		4.61	4.89	5.04	5.23	5.43	6.41			12.57	13.96	15.70
		velocity	7.11	8.91		8.10	7.85	7.92	7.59	7.16	6.94	6.69	6.45	6.24	7.28		8.35	7.52	6.69
H1 lead leg	L	strides	23	15			15		15	15	16	16	17	19.5	151.5				
Tkachuk, Viktoriya (UKR) (19		time	6.27	10.33		18.80	23.20	25.05	27.73	32.53	37.46	42.80	48.60		55.29	7 / 6			
reaction time	0.211	interval		4.06		8.47	4.40		4.53	4.80	4.93	5.34	5.80	6.69			12.53	13.73	16.07
		velocity	7.18	8.62		8.26	7.95	7.98	7.73	7.29	7.10	6.55	6.03	5.98	7.23		8.38	7.65	6.53
H1 lead leg	L	strides	22	15			15		15	15	16	17	18	20.7	153.7				
Muhammad, Dalilah (USA) (		time	6.13	10.10	14.24	18.67	23.13	25.02	27.73	32.57	37.57	43.16	49.10		56.03	4 / 7			
reaction time	0.184	interval		3.97	4.14	4.43	4.46		4.60	4.84	5.00	5.59	5.94	6.93			12.54	13.90	16.53
		velocity	7.34	8.82	8.45	7.90	7.85	7.99	7.61	7.23	7.00	6.26	5.89	5.77	7.14		8.37	7.55	6.35
H1 lead leg	R	strides	22	14	14	15	15		15	15	15	16	17		158				
Clayton, Rushell (JAM) (199		time	6.36	10.53	14.76	19.13	23.57		28.13	32.88	37.90	*fell*			dnf	6 / --			
reaction time	0.161	interval		4.17	4.23	4.37	4.44		4.56	4.75	5.02						12.77	13.75	
		velocity	7.08	8.39	8.27	8.01	7.88		7.68	7.37	6.97						8.22	7.64	
H1 lead leg	R	strides	22	15	15	15	15		15	15	16				128				

2022 European Athletics Championships (Munich, GER) (TV Analysis)

FINAL date 19-Aug-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.43	10.46	14.70	18.93	23.27	25.04	27.73	32.37	37.10	41.97	46.93		52.67	3 / 1			
reaction time	0.279	interval		4.03	4.24	4.23	4.34		4.46	4.64	4.73	4.87	4.96	5.74	**CR**		12.50	13.44	14.56
		velocity	7.00	8.68	8.25	8.27	8.06	7.99	7.85	7.54	7.40	7.19	7.06	6.97	7.59		8.40	7.81	7.21
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18.7	175.7				
Tkachuk, Viktoriya (UKR) (19		time	6.30	10.50		19.07	23.47	25.33	28.06	32.77	37.70	42.83	48.10		54.30	7 / 2			
reaction time	0.195	interval		4.20		8.57	4.40		4.59	4.71	4.93	5.13	5.27	6.20			12.77	13.70	15.33
		velocity	7.14	8.33		8.17	7.95	7.90	7.63	7.43	7.10	6.82	6.64	6.45	7.37		8.22	7.66	6.85
H1 lead leg	L	strides	22	15			15		15	15	15	16	16	20	149				
Ryzhykova, Anna (UKR) (19		time	6.50	10.60		19.20	23.70	25.61	28.43	33.27	38.23	43.30	48.67		54.86	5 / 3			
reaction time	0.250	interval		4.10		8.60	4.50		4.73	4.84	4.96	5.07	5.37	6.19			12.70	14.07	15.40
		velocity	6.92	8.54		8.14	7.78	7.81	7.40	7.23	7.06	6.90	6.52	6.46	7.29		8.27	7.46	6.82
H1 lead leg	R	strides	22	14			14		15	15	15	15	16	19.5	145.5				
Gallego, Sara (ESP) (2000)		time	6.33	10.53		19.37	23.93	25.82	28.60	33.37	38.37	43.46	48.77		54.97	6 / 4			
reaction time	0.143	interval		4.20		8.84	4.56		4.67	4.77	5.00	5.09	5.31	6.20			13.04	14.00	15.40
		velocity	7.11	8.33		7.92	7.68	7.75	7.49	7.34	7.00	6.88	6.59	6.45	7.28		8.05	7.50	6.82
H1 lead leg	L	strides	23	15			16		16	16	17	17	17	21.7	158.7				
Iuel, Amalie (NOR) (1996)		time	6.40	10.50		19.20	23.67	25.62	28.36	33.20	38.30	43.47	48.80		55.32	1 / 5			
reaction time	0.186	interval		4.10		8.70	4.47		4.69	4.84	5.10	5.17	5.33	6.52			12.80	14.00	15.60
		velocity	7.03	8.54		8.05	7.83	7.81	7.46	7.23	6.86	6.77	6.57	6.13	7.23		8.20	7.50	6.73
H1 lead leg	L	strides	23	15			15		15	15	16	16	16	20	151				
Lehikoinen, Viivi (FIN) (1999)		time	6.57	10.76	15.07	19.36	23.83	25.69	28.57	33.43	38.63	43.83	49.20		55.58	4 / 6			
reaction time	0.291	interval		4.19	4.31	4.29	4.47		4.74	4.86	5.20	5.20	5.37	6.38			12.79	14.07	15.77
		velocity	6.85	8.35	8.12	8.16	7.83	7.79	7.38	7.20	6.73	6.73	6.52	6.27	7.20		8.21	7.46	6.66
H1 lead leg	R	strides	25	16	16	16	16		16	17	17	17	17	20.5	193.5				
Folorunso, Ayomide (ITA) (1		time	6.40	10.70		19.50	24.00	25.91	28.67	33.47	38.50	43.66	49.10		55.91	2 / 7			
reaction time	0.197	interval		4.30		8.80	4.50		4.67	4.80	5.03	5.16	5.44	6.81			13.10	13.97	15.63
		velocity	7.03	8.14		7.95	7.78	7.72	7.49	7.29	6.96	6.78	6.43	5.87	7.15		8.02	7.52	6.72
H1 lead leg	L	strides	23	15			15		16	16	16	17	17	21.5	156.5				
Krafzik, Carolina (GER) (199		time	6.26	10.30		18.66	23.07	24.97	27.80	32.66	37.73	43.00	48.80		56.02	8 / 8			
reaction time	0.215	interval		4.04		8.36	4.41		4.73	4.86	5.07	5.27	5.80	7.22			12.40	14.00	16.14
		velocity	7.19	8.66		8.37	7.94	8.01	7.40	7.20	6.90	6.64	6.03	5.54	7.14		8.47	7.50	6.51
H1 lead leg	L	strides	23	15			15		16	16	17	17	19	22.5	160.5				

2022 Herculis Meeting International d'Athlétisme (Monaco, MON) (TV Analysis)

FINAL date 10-Aug-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Clayton, Rushell (JAM) (199		time	6.30	10.33	14.53	18.77	23.07	24.92	27.50	32.10	36.93	42.07	47.30		53.33	6 / 1			
reaction time	0.179	interval		4.03	4.20	4.24	4.30		4.43	4.60	4.83	5.14	5.23	6.03	**PB**		12.47	13.33	15.20
		velocity	7.14	8.68	8.33	8.25	8.14	8.03	7.90	7.61	7.25	6.81	6.69	6.63	7.50		8.42	7.88	6.91
H1 lead leg	L	strides	21	15	15	15	15		15	15	16	16	17	19.7	179.7				
Russell, Janieve (JAM) (1993		time	6.33	10.47	14.65	18.88	23.17	25.08	27.60		37.07	42.07	47.30		53.52	3 / 2			
reaction time	0.180	interval		4.14	4.18	4.23	4.29		4.43		9.47	5.00	5.23	6.22			12.55		

		velocity	7.11	8.45	8.37	8.27	8.16	7.97	7.90		7.39	7.00	6.69	6.43	7.47		8.37		
H1 lead leg	R	strides	23	15	15	15	15		15			16	17	20	151				
Woodruff, Gianna (PAN) (19		time	6.30	10.33	14.53	18.83	23.33	25.28	27.86	32.53	37.40	42.47	47.73		54.13	4 / 3			
reaction time	0.203	interval		4.03	4.20	4.30	4.50		4.53	4.67	4.87	5.07	5.26	6.40			12.53	13.70	15.20
		velocity	7.14	8.68	8.33	8.14	7.78	7.91	7.73	7.49	7.19	6.90	6.65	6.25	7.39		8.38	7.66	6.91
H1 lead leg	L	strides	23	15	15	15	15		15		16	16	17	19.5	166.5				
Tkachuk, Viktoriya (UKR) (19		time	6.33	10.46	14.70	18.97	23.33	25.25	27.78	32.40	37.37	42.63	48.07		54.27	8 / 4			
reaction time	0.253	interval		4.13	4.24	4.27	4.36		4.45	4.62	4.97	5.26	5.44	6.20			12.64	13.43	15.67
		velocity	7.11	8.47	8.25	8.20	8.03	7.92	7.87	7.58	7.04	6.65	6.43	6.45	7.37		8.31	7.82	6.70
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	19.7	180.7				
Ryzhykova, Anna (UKR) (19		time	6.46	10.53	14.70	19.00	23.40	25.37	28.06	32.96	37.93	43.10	48.40		54.53	5 / 5			
reaction time	0.189	interval		4.07	4.17	4.30	4.40		4.66	4.90	4.97	5.17	5.30	6.13			12.54	13.96	15.44
		velocity	6.97	8.60	8.39	8.14	7.95	7.88	7.51	7.14	7.04	6.77	6.60	6.53	7.34		8.37	7.52	6.80
H1 lead leg	R	strides	22	14	14	14	14		15		15	15	16	19.2	158.2				
Kloster, Line (NOR) (1990)		time	6.20	10.28	14.53	18.90	23.32	25.26	27.90	32.63	37.56	42.90	48.30		54.62	7 / 6			
reaction time	0.156	interval		4.08	4.25	4.37	4.42		4.58	4.73	4.93	5.34	5.40	6.32			12.70	13.73	15.67
		velocity	7.26	8.58	8.24	8.01	7.92	7.92	7.64	7.40	7.10	6.55	6.48	6.33	7.32		8.27	7.65	6.70
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	20	179				

2022 Gyulai István Memorial (Székesfehérvár, HUN) (TV Analysis)

FINAL date 08-Aug-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.24	10.27	14.36	18.63	22.96			32.16	36.86	41.63	46.30		51.68	4 / 1			
reaction time	0.182	interval		4.03	4.09	4.27	4.33			9.20	4.70	4.77	4.67	5.38			12.39	13.53	14.14
		velocity	7.21	8.68	8.56	8.20	8.08			7.61	7.45	7.34	7.49	7.43	7.74		8.47	7.76	7.43
H1 lead leg	R	strides	22	14	14	14	14				15	15	15	18	141				
Russell, Janieve (JAM) (1993		time	6.43	10.53	14.73	19.09	23.45		28.07	32.76	37.63	42.67	47.93		54.14	5 / 2			
reaction time	0.168	interval		4.10	4.20	4.36	4.36		4.62	4.69	4.87	5.04	5.26	6.21			12.66	13.67	15.17
		velocity	7.00	8.54	8.33	8.03	8.03		7.58	7.46	7.19	6.94	6.65	6.44	7.39		8.29	7.68	6.92
H1 lead leg	R	strides	23	15	15	15	15				16	16	17		132				
Clayton, Rushell (JAM) (199		time	6.36	10.53	14.90	19.33	23.93		28.56	33.33	38.26	43.30	48.43		54.45	7 / 3			
reaction time	0.196	interval		4.17	4.37	4.43	4.60		4.63	4.77	4.93	5.04	5.13	6.02			12.97	14.00	15.10
		velocity	7.08	8.39	8.01	7.90	7.61		7.56	7.34	7.10	6.94	6.82	6.64	7.35		8.10	7.50	6.95
H1 lead leg	L	strides	22	15	15	15	15		15		16	16	16		145				
Woodruff, Gianna (PAN) (19		time	6.50	10.53	14.93	19.47	24.10		28.83	33.73	38.90	44.10	49.46		55.73	6 / 4			
reaction time	0.234	interval		4.03	4.40	4.54	4.63		4.73	4.90	5.17	5.20	5.36	6.27			12.97	14.26	15.73
		velocity	6.92	8.68	7.95	7.71	7.56		7.40	7.14	6.77	6.73	6.53	6.38	7.18		8.10	7.36	6.68
H1 lead leg	L	strides	23	15	15	15	15			15	16	16	17		147				
Molnár, Janka (HUN) (2001)		time	6.53	10.70	15.07	19.57	24.26		28.96		39.10	44.36	49.73		56.04	3 / 5			
reaction time	0.232	interval		4.17	4.37	4.50	4.69		4.70		10.14	5.26	5.37	6.31			13.04		
		velocity	6.89	8.39	8.01	7.78	7.46		7.45		6.90	6.65	6.52	6.34	7.14		8.05		
H1 lead leg	L	strides	23	16	16	16	16					17	17		121				
Barbosa, Vera (POR) (1989)		time	6.73	11.07	15.56	20.23			29.87		40.26	45.73			57.66	1 / 6			
reaction time	0.248	interval		4.34	4.49	4.67			29.87		10.39	5.47					13.50		
		velocity	6.69	8.06	7.80	7.49			1.17		6.74	6.40			6.94		7.78		
H1 lead leg	L	strides	24	16	16	16	16					18			106				
Ledecká, Daniela (SVK) (1996		time	6.67	10.96	15.43	19.90	24.63		29.66	34.83	40.07	45.70			57.89	8 / 7			
reaction time	0.146	interval		4.29	4.47	4.47	4.73		5.03	5.17	5.24	5.63					13.23	14.93	
		velocity	6.75	8.16	7.83	7.83	7.40		6.96	6.77	6.68	6.22			6.91		7.94	7.03	
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	17			148				
Zapletalová, Emma (SVK) (20		time	6.57	11.03	15.57	20.27			29.93		40.50	46.17			59.00	2 / 8			
reaction time	0.160	interval		4.46	4.54	4.70			29.93		10.57	5.67					13.70		
		velocity	6.85	7.85	7.71	7.45			1.17		6.62	6.17			6.78		7.66		
H1 lead leg	R	strides	23	16	16	16	16					17			104				

2022 Commonwealth Games (Birmingham, GBR) (TV Analysis)

FINAL date 06-Aug-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Janieve (JAM) (1993		time	6.43	10.53	14.60	19.03	23.50	25.5	28.26	32.93	37.52	42.47	47.67		54.14	7 / 1			
reaction time	0.148	interval		4.10	4.07	4.43	4.47		4.76	4.67	4.59	4.95	5.20	6.47			12.60	13.90	14.74
		velocity	7.00	8.54	8.60	7.90	7.83	7.84	7.35	7.49	7.63	7.07	6.73	6.18	7.39		8.33	7.55	7.12
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	20	184				
Salmon, Shiann (JAM) (1999		time	6.36	10.55	14.70	19.23	23.73	25.8	28.53	33.22	37.90	42.90	48.08		54.47	4 / 2			
reaction time	0.195	interval		4.19	4.15	4.53	4.50		4.80	4.69	4.68	5.00	5.18	6.39			12.87	13.99	14.86
		velocity	7.08	8.35	8.43	7.73	7.78	7.75	7.29	7.46	7.48	7.00	6.76	6.26	7.34		8.16	7.51	7.07
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19.7	178.7				

van der Walt, Zenéy (RSA) (2		time	6.43	10.67	14.90	19.50	24.15	26.2	29.10	33.87	38.60	43.63	48.63		54.47	6 / 3			
reaction time	0.168	interval		4.24	4.23	4.60	4.65		4.95	4.77	4.73	5.03	5.00	5.84	PB		13.07	14.37	14.76
		velocity	7.00	8.25	8.27	7.61	7.53	7.63	7.07	7.34	7.40	6.96	7.00	6.85	7.34		8.03	7.31	7.11
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16	19	179				
Clayton, Rushell (JAM) (199		time	6.36	10.46	14.40	18.63	23.00	25.0	27.77	32.43	37.20	42.40	47.83		54.67	5 / 4			
reaction time	0.147	interval		4.10	3.94	4.23	4.37		4.77	4.66	4.77	5.20	5.43	6.84			12.27	13.80	15.40
		velocity	7.08	8.54	8.88	8.27	8.01	8.00	7.34	7.51	7.34	6.73	6.45	5.85	7.32		8.56	7.61	6.82
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Knight, Jessie (GBR) (1994)		time	6.40	10.50	14.53	18.90	23.47	25.5	28.33	33.23	38.20	43.37	48.73		55.11	8 / 5			
reaction time	0.160	interval		4.10	4.03	4.37	4.57		4.86	4.90	4.97	5.17	5.36	6.38			12.50	14.33	15.50
		velocity	7.03	8.54	8.68	8.01	7.66	7.84	7.20	7.14	7.04	6.77	6.53	6.27	7.26		8.40	7.33	6.77
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.2	179.2				
Carli, Sarah (AUS) (1994)		time	6.47	10.50	14.60	19.07	23.63	25.6	28.57	33.53	38.50	43.80	49.23		55.82	2 / 6			
reaction time	0.263	interval		4.03	4.10	4.47	4.56		4.94	4.96	4.97	5.30	5.43	6.59			12.60	14.46	15.70
		velocity	6.96	8.68	8.54	7.83	7.68	7.81	7.09	7.06	7.04	6.60	6.45	6.07	7.17		8.33	7.26	6.69
H1 lead leg	L	strides	23	15	15	15	16		16	16	17	17	17	21	188				
Bing, Portia (NZL) (1993)		time	6.53	10.63	14.63	18.97	23.43	25.6	28.32	33.22	38.17	43.47	49.17		56.36	9 / 7			
reaction time	0.173	interval		4.10	4.00	4.34	4.46		4.89	4.90	4.95	5.30	5.70	7.19			12.44	14.25	15.95
		velocity	6.89	8.54	8.75	8.06	7.85	7.81	7.16	7.14	7.07	6.60	6.14	5.56	7.10		8.44	7.37	6.58
H1 lead leg	R	strides	22	14	14	14	14		15	15	16		17	20.5	161.5				
Haye-Smith, Yanique (TKS) (		time	6.38	10.53	14.70	19.23	23.90	26.0	29.07	34.20	39.43	45.20			58.78	3 / 8			
reaction time	0.170	interval		4.15	4.17	4.53	4.67		5.17	5.13	5.23	5.77					12.85	14.97	
		velocity	7.05	8.43	8.39	7.73	7.49	7.69	6.77	6.82	6.69	6.07			6.81		8.17	7.01	
H1 lead leg	R	strides	24	16	16	16	16		17	17	18	18			158				

2022 Japanese National High School Championships (Naruto, JPN)

FINAL date 05-Aug-22

Kishima (2022) - national high school championships biomechanics data collection

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Takino, Miku (JPN) (2005)		time	6.87	11.48	16.13	21.02	26.02		31.25	36.53	41.77	47.12	52.45		58.54	6 / 1			
reaction time	0.188	interval		4.61	4.65	4.89	5.00		5.23	5.28	5.24	5.35	5.33	6.09	PB		14.15	15.51	15.92
		velocity	6.55	7.59	7.53	7.16	7.00		6.69	6.63	6.68	6.54	6.57	6.57	6.83		7.42	6.77	6.60
H1 lead leg	R	strides	23	16	16	16	16		17	17	17	17	17	20.7	192.7				
Kashiwagura, Umi (JPN) (20		time	6.75	11.22	15.77	20.57	25.53		30.65	35.88	41.18	46.75	52.53		59.12	7 / 2			
reaction time		interval		4.47	4.55	4.80	4.96		5.12	5.23	5.30	5.57	5.78	6.59	PB		13.82	15.31	16.65
		velocity	6.67	7.83	7.69	7.29	7.06		6.84	6.69	6.60	6.28	6.06	6.07	6.77		7.60	6.86	6.31
H1 lead leg	R	strides	22	16	16	17	17		17	17	17	18	19	23	199				
Naito, Kano (JPN) (2004)		time	6.75	11.18	15.87	20.68	25.72		30.82	36.07	41.45	46.98	52.78		59.80	5 / 3			
reaction time	0.156	interval		4.43	4.69	4.81	5.04		5.10	5.25	5.38	5.53	5.80	7.02			13.93	15.39	16.71
		velocity	6.67	7.90	7.46	7.28	6.94		6.86	6.67	6.51	6.33	6.03	5.70	6.69		7.54	6.82	6.28
H1 lead leg	R	strides	23	16	16	16	16		17	17	17	18	18	22.2	196.2				
Nakamura, Makoto (JPN) (20		time	6.82	11.37	16.08	21.02	26.12		31.32	36.57	42.10	47.92	53.85		60.80	3 / 4			
reaction time	0.171	interval		4.55	4.71	4.94	5.10		5.20	5.25	5.53	5.82	5.93	6.95			14.20	15.55	17.28
		velocity	6.60	7.69	7.43	7.09	6.86		6.73	6.67	6.33	6.01	5.90	5.76	6.58		7.39	6.75	6.08
H1 lead leg	R	strides	23	16	17	17	17		17	17	18	19	19	23	203				
Natsume, Saaya (JPN) (2004)		time	6.97	11.60	16.37	21.35	26.50		31.87	37.47	43.13	48.87	54.58		60.81	9 / 5			
reaction time	0.204	interval		4.63	4.77	4.98	5.15		5.37	5.60	5.66	5.74	5.71	6.23			14.38	16.12	17.11
		velocity	6.46	7.56	7.34	7.03	6.80		6.52	6.25	6.18	6.10	6.13	6.42	6.58		7.30	6.51	6.14
H1 lead leg	L	strides	24	17	17	17	17		17	19	19	19	19		185				
Ogasawara, Arisa (JPN) (200		time	7.20	12.00	16.87	22.07	27.33		32.60	37.90	43.27	48.73	54.27		60.83	8 / 6			
reaction time	0.220	interval		4.80	4.87	5.20	5.26		5.27	5.30	5.37	5.46	5.54	6.56	PB		14.87	15.83	16.37
		velocity	6.25	7.29	7.19	6.73	6.65		6.64	6.60	6.52	6.41	6.32	6.10	6.58		7.06	6.63	6.41
H1 lead leg	L	strides	24	16	16	17	17		17	17	17	17	17		175				
Moriwaki, Kanami (JPN) (200		time	6.85	11.40	16.27	21.32	26.58		32.03	37.50	42.93	48.50	54.27		60.89	1 / 7			
reaction time	0.166	interval		4.55	4.87	5.05	5.26		5.45	5.47	5.43	5.57	5.77	6.62	PB		14.47	16.18	16.77
		velocity	6.57	7.69	7.19	6.93	6.65		6.42	6.40	6.45	6.28	6.07	6.04	6.57		7.26	6.49	6.26
H1 lead leg	L	strides	24	16	17	17	17		17	17	17	17	17	22	198				
Simizu, Serina (JPN) (2005)		time	6.80	11.32	16.15	21.15	26.43		31.82	37.45	43.07	48.73	54.55		60.92	2 / 8			
reaction time	0.291	interval		4.52	4.83	5.00	5.28		5.39	5.63	5.62	5.66	5.82	6.37	PB		14.35	16.30	17.10
		velocity	6.62	7.74	7.25	7.00	6.63		6.49	6.22	6.23	6.18	6.01	6.28	6.57		7.32	6.44	6.14
H1 lead leg	L	strides	24	17	17	17	17		17	19	19	19	19	22	207				
Muramatsu, Luna (JPN) (200		time	7.10	11.68	16.43	21.33	26.60		31.97	37.47	42.98	48.60	54.38		60.97	4 / 9			
reaction time	0.199	interval		4.58	4.75	4.90	5.27		5.37	5.50	5.51	5.62	5.78	6.59	=PB		14.23	16.14	16.91
		velocity	6.34	7.64	7.37	7.14	6.64		6.52	6.36	6.35	6.23	6.06	6.07	6.56		7.38	6.51	6.21
H1 lead leg	L	strides	24	16	17	17	18		17	18	18	19	19	23	206				

2022 World Athletics Championships (Eugene, OR) (TV Analysis)

FINAL

date 22-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.10	10.10	14.10	18.27	22.50	24.25	26.84	31.23	35.80	40.40	45.17		50.68	5 / 1			
reaction time	0.158	interval		4.00	4.00	4.17	4.23		4.34	4.39	4.57	4.60	4.77	5.51	**WR**		12.17	12.96	13.94
		velocity	7.38	8.75	8.75	8.39	8.27	8.25	8.06	7.97	7.66	7.61	7.34	7.26	7.89		8.63	8.10	7.53
H1 lead leg	R	strides	22	14	14	14	14		14	14	15	15	15	18.7	169.7				
Bol, Femke (NED) (2000)		time	6.43	10.47	14.57	18.82	23.30	24.97		32.22	36.90	41.70	46.63		52.27	4 / 2			
reaction time	0.179	interval		4.04	4.10	4.25	4.48			8.92	4.68	4.80	4.93	5.64			12.39	13.40	14.41
		velocity	7.00	8.66	8.54	8.24	7.81	8.01		7.85	7.48	7.29	7.10	7.09	7.65		8.47	7.84	7.29
H1 lead leg	L	strides	22	15	15	15	15				15	15	15	19	146				
Muhammad, Dalilah (USA) (		time	6.17	10.13	14.23	18.66	23.17	25.03	27.70	32.28	37.03	42.17	47.23		53.13	6 / 3			
reaction time	0.162	interval		3.96	4.10	4.43	4.51		4.53	4.58	4.75	5.14	5.06	5.90			12.49	13.62	14.95
		velocity	7.29	8.84	8.54	7.90	7.76	7.99	7.73	7.64	7.37	6.81	6.92	6.78	7.53		8.41	7.71	7.02
H1 lead leg	R	strides	22	14	14	15	15		15	15	15	16	16		157				
Little, Shamier (USA) (1995)		time	6.33	10.53	14.73	19.17	23.68	25.52		32.96	37.67	42.60	47.77		53.76	3 / 4			
reaction time	0.147	interval		4.20	4.20	4.44	4.51			9.28	4.71	4.93	5.17	5.99			12.84	13.79	14.81
		velocity	7.11	8.33	8.33	7.88	7.76	7.84		7.54	7.43	7.10	6.77	6.68	7.44		8.18	7.61	7.09
H1 lead leg	R	strides	22	15	15	15	15				15	15	16		128				
Wilson, Britton (USA) (2000)		time	6.46	10.70	15.00	19.47	23.87	25.60		33.07	37.90	42.97	48.13		54.02	1 / 5			
reaction time	0.141	interval		4.24	4.30	4.47	4.40			9.20	4.83	5.07	5.16	5.89			13.01	13.60	15.06
		velocity	6.97	8.25	8.14	7.83	7.95	7.81		7.61	7.25	6.90	6.78	6.79	7.40		8.07	7.72	6.97
H1 lead leg	R	strides	23	15	15	15	15				15	16	16		130				
Clayton, Rushell (JAM) (199		time	6.40	10.57	14.73	19.00	23.43	25.19		32.67	37.67	42.83	48.07		54.36	2 / 6			
reaction time	0.145	interval		4.17	4.16	4.27	4.43			9.24	5.00	5.16	5.24	6.29			12.60	13.67	15.40
		velocity	7.03	8.39	8.41	8.20	7.90	7.94		7.58	7.00	6.78	6.68	6.36	7.36		8.33	7.68	6.82
H1 lead leg	L	strides	22	15	15	15	15				16	16	16		130				
Woodruff, Gianna (PAN) (19		time	6.43	10.63	14.83	19.30	23.88	25.81	28.46	33.30	38.07	43.20			54.75	7 / 7			
reaction time	0.177	interval		4.20	4.20	4.47	4.58		4.58	4.84	4.77	5.13					12.87	14.00	
		velocity	7.00	8.33	8.33	7.83	7.64	7.75	7.64	7.23	7.34	6.82			7.31		8.16	7.50	
H1 lead leg	R	strides	23	16	15	15	15		15	16	16	16			147				
Ryzhykova, Anna (UKR) (19		time	6.60	10.77	14.97	19.40	23.96	25.85	28.67	33.50	38.43	43.50			54.93	8 / 8			
reaction time	0.167	interval		4.17	4.20	4.43	4.56		4.71	4.83	4.93	5.07					12.80	14.10	
		velocity	6.82	8.39	8.33	7.90	7.68	7.74	7.43	7.25	7.10	6.90			7.28		8.20	7.45	
H1 lead leg	R	strides	22	14	14	14	14		14	15	15	15			137				

Semi-Final 3

date 20-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.12	10.10	14.30	18.42	22.73	24.61	27.27	31.90	36.60	41.43	46.43		52.17	6 / 1			
reaction time	0.174	interval		3.98	4.20	4.12	4.31		4.54	4.63	4.70	4.83	5.00	5.74			12.30	13.48	14.53
		velocity	7.35	8.79	8.33	8.50	8.12	8.13	7.71	7.56	7.45	7.25	7.00	6.97	7.67		8.54	7.79	7.23
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	18	172				
Woodruff, Gianna (PAN) (19		time	6.30	10.47	14.70	19.10	23.62	25.60	28.23	32.93	37.86	42.73	47.83		53.69	7 / 2			
reaction time	0.211	interval		4.17	4.23	4.40	4.52		4.61	4.70	4.93	4.87	5.10	5.86	**AR PB**		12.80	13.83	14.90
		velocity	7.14	8.39	8.27	7.95	7.74	7.81	7.59	7.45	7.10	7.19	6.86	6.83	7.45		8.20	7.59	7.05
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	17	19.2	181.2				
Salmon, Shiann (JAM) (1999		time	6.20	10.27	14.60	18.93	23.43	25.33	28.03		37.63	42.70	47.83		54.16	3 / 3			
reaction time	0.187	interval		4.07	4.33	4.33	4.50		4.60		9.60	5.07	5.13	6.33			12.73		
		velocity	7.26	8.60	8.08	8.08	7.78	7.90	7.61		7.29	6.90	6.82	6.32	7.39		8.25		
H1 lead leg	L	strides	22	15	15	15	15		15			16	16	20	149				
Tkachuk, Viktoriya (UKR) (19		time	6.43	10.50	14.82	19.03	23.43	25.36	27.98	32.67	37.70	42.84	48.20		54.24	8 / 4			
reaction time	0.212	interval		4.07	4.32	4.21	4.40		4.55	4.69	5.03	5.14	5.36	6.04			12.60	13.64	15.53
		velocity	7.00	8.60	8.10	8.31	7.95	7.89	7.69	7.46	6.96	6.81	6.53	6.62	7.37		8.33	7.70	6.76
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Folorunso, Ayomide (ITA) (1		time	6.40	10.67	15.03	19.33	23.80	25.75	28.33	33.10	38.00	43.03	48.23		54.34	5 / 5			
reaction time	0.188	interval		4.27	4.36	4.30	4.47		2.58	4.77	4.90	5.03	5.20	6.11	**NR PB**		12.93	13.77	15.13
		velocity	7.03	8.20	8.03	8.14	7.83	7.77	13.57	7.34	7.14	6.96	6.73	6.55	7.36		8.12	7.63	6.94
H1 lead leg	L	strides	23	15	15	15	15		16		16	17	17	20.5	169.5				
Iuel, Amalie (NOR) (1996)		time	6.33	10.40	14.67	18.93	23.43	25.37	28.10		38.00	43.23	48.60		54.81	4 / 6			
reaction time	0.123	interval		4.07	4.27	4.26	4.50		4.67		9.90	5.23	5.37	6.21			12.60		
		velocity	7.11	8.60	8.20	8.22	7.78	7.88	7.49		7.07	6.69	6.52	6.44	7.30		8.33		
H1 lead leg	L	strides	23	15	15	15	15		15		15	16	16	19	164				
Gonzalez, Melissa (COL) (19		time	6.40	10.53	14.93	19.23	23.67	25.60	28.35	33.27	38.30	43.63	49.00		55.13	1 / 7			
reaction time	0.143	interval		4.13	4.40	4.30	4.44		4.68	4.92	5.03	5.33	5.37	6.13			12.83	14.04	15.73
		velocity	7.03	8.47	7.95	8.14	7.88	7.81	7.48	7.11	6.96	6.57	6.52	6.53	7.26		8.18	7.48	6.68
H1 lead leg	L	strides	23	15	15	15	15		16		16	17	17	20	169				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Giger, Yasmin (SUI) (1999)		time	6.53	10.84	15.30	19.73	24.40	26.41		34.20	39.33	44.70		56.31	2 / 8			
reaction time	0.154	interval		4.31	4.46	4.43	4.67			9.80	5.13	5.37				13.20	14.47	
		velocity	6.89	8.12	7.85	7.90	7.49	7.57		7.14	6.82	6.52		7.10		7.95	7.26	
H1 lead leg	R	strides	23	15	15	15	15				16	17		116				

Semi-Final 2

date 20-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.30	10.27	14.50	18.73	23.17	25.15	27.77	32.47	37.20	42.13	47.17		52.84	3 / 1			
reaction time	0.171	interval		3.97	4.23	4.23	4.44		4.60	4.70	4.73	4.93	5.04	5.67			12.43	13.74	14.70
		velocity	7.14	8.82	8.27	8.27	7.88	7.95	7.61	7.45	7.40	7.10	6.94	7.05	7.57		8.45	7.64	7.14
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18	175				
Little, Shamier (USA) (1995)		time	6.17	10.26	14.53	18.80	23.33	25.43	27.93	32.73	37.60	42.63	47.77		53.61	6 / 2			
reaction time	0.178	interval		4.09	4.27	4.27	4.53		4.60	4.80	4.87	5.03	5.14	5.84			12.63	13.93	15.04
		velocity	7.29	8.56	8.20	8.20	7.73	7.86	7.61	7.29	7.19	6.96	6.81	6.85	7.46		8.31	7.54	6.98
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.2	179.2				
Clayton, Rushell (JAM) (199		time	6.20	10.27	14.40	18.60	23.04	25.07	27.57	32.30	37.10	42.27	47.40		53.63	8 / 3			
reaction time	0.169	interval		4.07	4.13	4.20	4.44		4.53	4.73	4.80	5.17	5.13	6.23	**PB**		12.40	13.70	15.10
		velocity	7.26	8.60	8.47	8.33	7.88	7.98	7.73	7.40	7.29	6.77	6.82	6.42	7.46		8.47	7.66	6.95
H1 lead leg	L	strides	22	14	14	15	15		15	15	15	16	16	19.2	176.2				
Wilson, Britton (USA) (2000)		time	6.47	10.70	15.07	19.40	24.00	26.19	28.67	33.33	38.10	42.93	47.97		53.72	5 / 4			
reaction time	0.159	interval		4.23	4.37	4.33	4.60		4.67	4.66	4.77	4.83	5.04	5.75			12.93	13.93	14.64
		velocity	6.96	8.27	8.01	8.08	7.61	7.64	7.49	7.51	7.34	7.25	6.94	6.96	7.45		8.12	7.54	7.17
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	15	16	18.2	177.2				
Gallego, Sara (ESP) (2000)		time	6.27	10.40	14.87	19.33	23.92	25.94	28.53	33.30	38.20	43.18	48.37		54.49	7 / 5			
reaction time	0.136	interval		4.13	4.47	4.46	4.59		4.61	4.77	4.90	4.98	5.19	6.12			13.06	13.97	15.07
		velocity	7.18	8.47	7.83	7.85	7.63	7.71	7.59	7.34	7.14	7.03	6.74	6.54	7.34		8.04	7.52	6.97
H1 lead leg	L	strides	24	15	16	16	16		16	16	17	17		21	174				
Lehikoinen, Viivi (FIN) (1999)		time	6.27	10.30	14.60	18.97	23.57	25.75	28.30	33.10	38.10	43.20	48.40		54.60	4 / 6			
reaction time	0.168	interval		4.03	4.30	4.37	4.60		4.73	4.80	5.00	5.10	5.20	6.20	**NR PB**		12.70	14.13	15.30
		velocity	7.18	8.68	8.14	8.01	7.61	7.77	7.40	7.29	7.00	6.86	6.73	6.45	7.33		8.27	7.43	6.86
H1 lead leg	R	strides	23	15	15	15	16		16	16	17	17	17	20.2	187.2				
Knight, Jessie (GBR) (1994)		time	6.37	10.60	15.07	19.50	24.10	26.19	28.90	33.73	38.80		49.40		55.39	2 / 7			
reaction time	0.148	interval		4.23	4.47	4.43	4.60		4.80	4.83	5.07		10.60	5.99			13.13	14.23	15.67
		velocity	7.06	8.27	7.83	7.90	7.61	7.64	7.29	7.25	6.90		6.60	6.68	7.22		8.00	7.38	6.70
H1 lead leg	R	strides	22	15	15	15	15		15	15	15			19	146				
Olivieri, Linda (ITA) (1998)		time	6.40	10.70	15.10	19.57	24.20	26.32	29.03	33.97	39.00		49.57		56.04	1 / 8			
reaction time	0.135	interval		4.30	4.40	4.47	4.63		4.83	4.94	5.03		10.57	6.47			13.17	14.40	15.60
		velocity	7.03	8.14	7.95	7.83	7.56	7.60	7.25	7.09	6.96		6.62	6.18	7.14		7.97	7.29	6.73
H1 lead leg	R	strides	23	15	15	15	15		15	16	16				130				

Semi-Final 1

date 20-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.06	10.06	14.26	18.53	23.07	25.20	27.77	32.47	37.27	42.10	47.26		53.28	4 / 1			
reaction time	0.224	interval		4.00	4.20	4.27	4.54		4.70	4.70	4.80	4.83	5.16	6.02			12.47	13.94	14.79
		velocity	7.43	8.75	8.33	8.20	7.71	7.94	7.45	7.45	7.29	7.25	6.78	6.64	7.51		8.42	7.53	7.10
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	15	16	19	177				
Ryzhykova, Anna (UKR) (19		time	6.46	10.66	14.97	19.33	23.90	26.03	28.70	33.47	38.37	43.34	48.47		54.51	5 / 2			
reaction time	0.175	interval		4.20	4.31	4.36	4.57		4.80	4.77	4.90	4.97	5.13	6.04			12.87	14.14	15.00
		velocity	6.97	8.33	8.12	8.03	7.66	7.68	7.29	7.34	7.14	7.04	6.82	6.62	7.34		8.16	7.43	7.00
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19	172				
Russell, Janieve (JAM) (1993		time	6.33	10.53	14.93	19.30	23.87	25.99	28.60	33.38	38.30	43.30	48.50		54.66	6 / 3			
reaction time	0.130	interval		4.20	4.40	4.37	4.57		4.73	4.78	4.92	5.00	5.20	6.16			12.97	14.08	15.12
		velocity	7.11	8.33	7.95	8.01	7.66	7.70	7.40	7.32	7.11	7.00	6.73	6.49	7.32		8.10	7.46	6.94
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	16	17	20	184				
van der Walt, Zenéy (RSA) (2		time	6.33	10.60	14.97	19.30	23.76	25.80	28.47	33.40	38.37	43.47	48.73		54.81	3 / 4			
reaction time	0.162	interval		4.27	4.37	4.33	4.46		4.71	4.93	4.97	5.10	5.26	6.08	**PB**		12.97	14.10	15.33
		velocity	7.11	8.20	8.01	8.08	7.85	7.75	7.43	7.10	7.04	6.86	6.65	6.58	7.30		8.10	7.45	6.85
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	16	19.7	180.7				
Couckuyt, Paulien (BEL) (19		time	6.30	10.33	14.63	18.90	23.36	25.42	28.13	32.93	38.20	43.50	48.96		55.42	8 / 5			
reaction time	0.201	interval		4.03	4.30	4.27	4.46		4.77	4.80	5.27	5.30	5.46	6.46			12.60	14.03	16.03
		velocity	7.14	8.68	8.14	8.20	7.85	7.87	7.34	7.29	6.64	6.60	6.41	6.19	7.22		8.33	7.48	6.55
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	21	187				
Bing, Portia (NZL) (1993)		time	6.57	10.83	15.30	19.66	24.16	26.21	28.90		38.76	43.94	49.32		55.53	1 / 6			
reaction time	0.191	interval		4.26	4.47	4.36	4.50		4.74		9.86	5.18	5.38	6.21			13.09		
		velocity	6.85	8.22	7.83	8.03	7.78	7.63	7.38		7.10	6.76	6.51	6.44	7.20		8.02		
H1 lead leg	R	strides	22	14	14	14	14		15			16	16	19	144				

Carli, Sarah (AUS) (1994)		time	6.40	10.66	15.10	19.53	24.17	26.39	29.13	34.10	39.16	44.36	49.63		55.57	7 / 7		
reaction time	0.257	interval		4.26	4.44	4.43	4.64		4.96	4.97	5.06	5.20	5.27	5.94			13.13	14.57	15.53
		velocity	7.03	8.22	7.88	7.90	7.54	7.58	7.06	7.04	6.92	6.73	6.64	6.73	7.20		8.00	7.21	6.76
H1 lead leg	L	strides	23	15	15	15	16		16	16	17	17	17	19.7	186.7				
Sartori, Rebecca (ITA) (1997)		time	6.38	10.60	15.06	19.40	24.00	26.10	28.92	33.93	39.20	44.53	49.86		55.90	2 / 8		
reaction time	0.199	interval		4.22	4.46	4.34	4.60		4.92	5.01	5.27	5.33	5.33	6.04			13.02	14.53	15.93
		velocity	7.05	8.29	7.85	8.06	7.61	7.66	7.11	6.99	6.64	6.57	6.57	6.62	7.16		8.06	7.23	6.59
H1 lead leg	L	strides	22	15	15	15	15		16		17	17	17	19.5	168.5				

Heat 5

date 19-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wilson, Britton (USA) (2000)		time	6.56	10.80	15.20	19.56	24.12	25.98	28.77		38.50	43.66	48.80		54.54	4 / 1			
reaction time	0.154	interval		4.24	4.40	4.36	4.56		4.65		9.73	5.16	5.14	5.74			13.00		
		velocity	6.86	8.25	7.95	8.03	7.68	7.70	7.53		7.19	6.78	6.81	6.97	7.33		8.08		
H1 lead leg	R	strides	23	15	15	15	15		15			16	16	18	148				
Folorunso, Ayomide (ITA) (1		time	6.53	10.87	15.33	19.80	24.33	26.22	29.00	33.76	38.67	43.67	48.83		54.69	5 / 2			
reaction time	0.176	interval		4.34	4.46	4.47	4.53		4.67	4.76	4.91	5.00	5.16	5.86			13.27	13.96	15.07
		velocity	6.89	8.06	7.85	7.83	7.73	7.63	7.49	7.35	7.13	7.00	6.78	6.83	7.31		7.91	7.52	6.97
H1 lead leg	L	strides	23	15	15	15	15		15		16	17	17	20	168				
Iuel, Amalie (NOR) (1996)		time	6.50	10.67	14.93	19.30	23.80	25.73	28.53	33.33	38.30	43.46	48.73		54.70	7 / 3			
reaction time	0.140	interval		4.17	4.26	4.37	4.50		4.73	4.80	4.97	5.16	5.27	5.97	PB		12.80	14.03	15.40
		velocity	6.92	8.39	8.22	8.01	7.78	7.77	7.40	7.29	7.04	6.78	6.64	6.70	7.31		8.20	7.48	6.82
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16	19	179				
Clayton, Rushell (JAM) (199		time	6.40	10.53	14.77	19.07	23.50	25.27	28.06		37.96	43.30	48.74		54.99	2 / 4			
reaction time	0.157	interval		4.13	4.24	4.30	4.43		4.56		9.90	5.34	5.44	6.25			12.67		
		velocity	7.03	8.47	8.25	8.14	7.90	7.91	7.68		7.07	6.55	6.43	6.40	7.27		8.29		
H1 lead leg	L	strides	22	15	15	15	15		15			17	17	19.5	150.5				

Heat 4

date 19-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.26	10.43	14.76	19.17	23.76	25.73	28.48	33.30	38.36	43.50	48.70		54.45	3 / 1			
reaction time	0.169	interval		4.17	4.33	4.41	4.59		4.72	4.82	5.06	5.14	5.20	5.75			12.91	14.13	15.40
		velocity	7.19	8.39	8.08	7.94	7.63	7.77	7.42	7.26	6.92	6.81	6.73	6.96	7.35		8.13	7.43	6.82
H1 lead leg	R	strides	22	1515	15	15	15		15	15	16	16	16	19	1679				
Salmon, Shiann (JAM) (1999		time	6.30		14.83	19.33	24.03	26.00		33.76	38.67	43.70	48.80		54.91	2 / 2			
reaction time	0.176	interval			8.53	4.50	4.70			9.73	4.91	5.03	5.10	6.11			13.03	14.43	15.04
		velocity	7.14		8.21	7.78	7.45	7.69		7.19	7.13	6.96	6.86	6.55	7.28		8.06	7.28	6.98
H1 lead leg	L	strides	22			15	15				16	16	16	19.7	119.7				
Carli, Sarah (AUS) (1994)		time	6.53	10.90	15.43	19.93	24.73	26.74		34.50	39.53	44.70	49.90		55.89	4 / 3			
reaction time	0.279	interval		4.37	4.53	4.50	4.80			9.77	5.03	5.17	5.20	5.99			13.40	14.57	15.40
		velocity	6.89	8.01	7.73	7.78	7.29	7.48		7.16	6.96	6.77	6.73	6.68	7.16		7.84	7.21	6.82
H1 lead leg	L	strides	23	15	15	15	16				16	17	17	19.2	153.2				
Gonzalez, Melissa (COL) (19		time	6.57	10.90	15.23	19.60	24.30	26.20	29.13	34.10	39.36	44.73	50.00		56.24	5 / 4			
reaction time	0.143	interval		4.33	4.33	4.37	4.70		4.83	4.97	5.26	5.37	5.27	6.24			13.03	14.50	15.90
		velocity	6.85	8.08	8.08	8.01	7.45	7.63	7.25	7.04	6.65	6.52	6.64	6.41	7.11		8.06	7.24	6.60
H1 lead leg	L	strides	23	15	15	15	16		16	16	17	17	17	20	187				

Heat 3

date 19-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.26	10.36	14.50	18.66	22.93	24.95	27.46	32.10	36.93	42.17	47.47		53.90	8 / 1			
reaction time	0.191	interval		4.10	4.14	4.16	4.27		4.53	4.64	4.83	5.24	5.30	6.43			12.40	13.44	15.37
		velocity	7.19	8.54	8.45	8.41	8.20	8.02	7.73	7.54	7.25	6.68	6.60	6.22	7.42		8.47	7.81	6.83
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	18.7	177.7				
van der Walt, Zenéy (RSA) (2		time	6.20	10.56	14.97	19.36	23.97	26.11	28.73	33.63	38.67	43.97	49.20		55.05	7 / 2			
reaction time	0.160	interval		4.36	4.41	4.39	4.61		4.76	4.90	5.04	5.30	5.23	5.85			13.16	14.27	15.57
		velocity	7.26	8.03	7.94	7.97	7.59	7.66	7.35	7.14	6.94	6.60	6.69	6.84	7.27		7.98	7.36	6.74
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16	19	179				
Woodruff, Gianna (PAN) (19		time	6.33	10.46	14.73	19.07	23.53	25.56	28.10	32.96	37.97	43.27	48.70		55.21	6 / 3			
reaction time	0.185	interval		4.13	4.27	4.34	4.46		4.57	4.86	5.01	5.30	5.43	6.51			12.74	13.89	15.74
		velocity	7.11	8.47	8.20	8.06	7.85	7.82	7.66	7.20	6.99	6.60	6.45	6.14	7.25		8.24	7.56	6.67
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	20	184				
Knight, Jessie (GBR) (1994)		time	6.33		15.00	19.40	23.93	25.89	28.70	33.70	38.90	44.20	49.57		55.48	2 / 4			
reaction time	0.144	interval			8.67	4.40	4.53		4.77	5.00	5.20	5.30	5.37	5.91			13.07	14.30	15.87
		velocity	7.11		8.07	7.95	7.73	7.72	7.34	7.00	6.73	6.60	6.52	6.77	7.21		8.03	7.34	6.62
H1 lead leg	R	strides				15	15		15	15	15	16	16	19	126				

Heat 2

date 19-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Janieve (JAM) (1993		time	6.50	10.76	15.10	19.50	23.97	25.99	28.63	33.43	38.30	43.26	48.41		54.52	5 / 1			

reaction time	0.124	interval		4.26	4.34	4.40	4.47		4.66	4.80	4.87	4.96	5.15	6.11			13.00	13.93	14.98
		velocity	6.92	8.22	8.06	7.95	7.83	7.70	7.51	7.29	7.19	7.06	6.80	6.55	7.34		8.08	7.54	7.01
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	19.5	181.5				
Little, Shamier (USA) (1995)		time	6.33	10.43	14.63	18.97	23.50	25.53	28.17		38.03	43.27	48.63		54.77	8 / 2			
reaction time	0.165	interval		4.10	4.20	4.34	4.53		4.67		9.86	5.24	5.36	6.14			12.64		
		velocity	7.11	8.54	8.33	8.06	7.73	7.83	7.49		7.10	6.68	6.53	6.51	7.30		8.31		
H1 lead leg	R	strides	23	15	15	15	15		15			16	16	19	149				
Lehikoinen, Viivi (FIN) (1999)		time	6.33	10.50	14.72	19.07	23.56	25.58	28.30		38.30	43.46	48.73		54.95	3 / 3			
reaction time	0.165	interval		4.17	4.22	4.35	4.49		4.74		10.00	5.16	5.27	6.22			12.74		
		velocity	7.11	8.39	8.29	8.05	7.80	7.82	7.38		7.00	6.78	6.64	6.43	7.28		8.24		
H1 lead leg	R	strides	23	15	15	15	16		16			17	17	20.2	154.2				
Tkachuk, Viktoriya (UKR) (19		time	6.40	10.63	14.96	19.37	23.90	25.96	28.65		38.70	44.03	49.33		55.27	2 / 4			
reaction time	0.199	interval		4.23	4.33	4.41	4.53		4.75		10.05	5.33	5.30	5.94			12.97		
		velocity	7.03	8.27	8.08	7.94	7.73	7.70	7.37		6.97	6.57	6.60	6.73	7.24		8.10		
H1 lead leg	L	strides		15	15	15	15		15			17	17	19.2	128.2				

Heat 1

date 19-Jul-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.40	10.43	14.83	19.12	23.60	25.48	28.36		38.03	43.20	48.30		53.95	8 / 1			
reaction time	0.168	interval		4.03	4.40	4.29	4.48		4.76		9.67	5.17	5.10	5.65			12.72		
		velocity	7.03	8.68	7.95	8.16	7.81	7.85	7.35		7.24	6.77	6.86	7.08	7.41		8.25		
H1 lead leg	R	strides	22	14	14	14	14		15			16	16	18	143				
Ryzhykova, Anna (UKR) (19		time	6.63	10.83	15.13	19.40	23.90	25.73	28.63		38.56	43.60	48.93		54.93	2 / 2			
reaction time	0.139	interval		4.20	4.30	4.27	4.50		4.73		9.93	5.04	5.33	6.00			12.77		
		velocity	6.79	8.33	8.14	8.20	7.78	7.77	7.40		7.05	6.94	6.57	6.67	7.28		8.22		
H1 lead leg	R	strides	22	14	14	14	14		15			15	15	19.2	142.2				
Gallego, Sara (ESP) (2000)		time	6.50	10.70	15.03	19.53	24.20	26.08	28.90	33.70	38.70	43.76	48.96		55.09	7 / 3			
reaction time	0.125	interval		4.20	4.33	4.50	4.67		4.70	4.80	5.00	5.06	5.20	6.13			13.03	14.17	15.26
		velocity	6.92	8.33	8.08	7.78	7.49	7.67	7.45	7.29	7.00	6.92	6.73	6.53	7.26		8.06	7.41	6.88
H1 lead leg	L	strides	23	15	16	16	16		16	16	17	17	17	20.2	189.2				
Couckuyt, Paulien (BEL) (19		time	6.40	10.53	14.80	19.03	23.50	25.35	28.30	33.17	38.37	43.70	49.13		55.42	5 / 4			
reaction time	0.168	interval		4.13	4.27	4.23	4.47		4.80	4.87	5.20	5.33	5.43	6.29			12.63	14.14	15.96
		velocity	7.03	8.47	8.20	8.27	7.83	7.89	7.29	7.19	6.73	6.57	6.45	6.36	7.22		8.31	7.43	6.58
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	21	187				

2022 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

FINAL

date 30-Jun-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.36	10.38	14.46	18.64	22.94	24.75	27.42	32.02	36.70	41.48	46.40		52.27	6 / 1			
reaction time	0.203	interval		4.02	4.08	4.18	4.30		4.48	4.60	4.68	4.78	4.92	5.87			12.28	13.38	14.38
		velocity	7.08	8.71	8.58	8.37	8.14	8.08	7.81	7.61	7.48	7.32	7.11	6.81	7.65		8.55	7.85	7.30
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				
Clayton, Rushell (JAM) (199		time	6.46	10.68	14.84	19.08	23.44	25.32	27.96	32.66	37.58	42.58	47.80		53.90	7 / 2			
reaction time	0.143	interval		4.22	4.16	4.24	4.36		4.52	4.70	4.92	5.00	5.22	6.10			12.62	13.58	15.14
		velocity	6.97	8.29	8.41	8.25	8.03	7.90	7.74	7.45	7.11	7.00	6.70	6.56	7.42		8.32	7.73	6.94
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.7	181.7				
Ryzhykova, Anna (UKR) (19		time	6.44	10.56	14.72	19.08	23.54	25.44	28.20	32.98	37.86	42.88	48.26		54.33	4 / 3			
reaction time	0.165	interval		4.12	4.16	4.36	4.46		4.66	4.78	4.88	5.02	5.38	6.07			12.64	13.90	15.28
		velocity	6.99	8.50	8.41	8.03	7.85	7.86	7.51	7.32	7.17	6.97	6.51	6.59	7.36		8.31	7.55	6.87
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	19	173				
Folorunso, Ayomide (ITA) (1		time	6.62	10.96	15.38	19.86	24.32	26.24	28.94	33.66	38.50	43.52	48.66		54.66	3 / 4			
reaction time	0.192	interval		4.34	4.42	4.48	4.46		4.62	4.72	4.84	5.02	5.14	6.00			13.24	13.80	15.00
		velocity	6.80	8.06	7.92	7.81	7.85	7.62	7.58	7.42	7.23	6.97	6.81	6.67	7.32		7.93	7.61	7.00
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	17	17	20.2	185.2				
Tkachuk, Viktoriya (UKR) (19		time	6.46	10.64	14.88	19.22	23.64	25.56	28.20	32.90	37.84	43.06	48.50		54.72	8 / 5			
reaction time	0.244	interval		4.18	4.24	4.34	4.42		4.56	4.70	4.94	5.22	5.44	6.22			12.76	13.68	15.60
		velocity	6.97	8.37	8.25	8.06	7.92	7.82	7.68	7.45	7.09	6.70	6.43	6.43	7.31		8.23	7.68	6.73
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Lehikoinen, Viivi (FIN) (1999)		time	6.40	10.60	14.84	19.18	23.66	25.58	28.36	33.20	38.22	43.36	48.64		54.80	2 / 6			
reaction time	0.180	interval		4.20	4.24	4.34	4.48		4.70	4.84	5.02	5.14	5.28	6.16	**PB**		12.78	14.02	15.44
		velocity	7.03	8.33	8.25	8.06	7.81	7.82	7.45	7.23	6.97	6.81	6.63	6.49	7.30		8.22	7.49	6.80
H1 lead leg	L	strides	24	16	16	16	16		16	16	16	17	17	20.5	190.5				
Knight, Jessie (GBR) (1994)		time	6.44	10.68	14.98	19.36	23.88	25.76	28.58	33.56	38.62	43.80	49.04		54.89	5 / 7			
reaction time	0.157	interval		4.24	4.30	4.38	4.52		4.70	4.98	5.06	5.18	5.24	5.85			12.92	14.20	15.48
		velocity	6.99	8.25	8.14	7.99	7.74	7.76	7.45	7.03	6.92	6.76	6.68	6.84	7.29		8.13	7.39	6.78
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				

Tate, Cassandra (USA) (1990		time	6.34	10.46	14.68	19.10	23.68	25.63	28.52	33.42	38.58	44.00	49.76		56.68	1 / 8			
reaction time	0.214	interval		4.12	4.22	4.42	4.58		4.84	4.90	5.16	5.42	5.76	6.92			12.76	14.32	16.34
		velocity	7.10	8.50	8.29	7.92	7.64	7.80	7.23	7.14	6.78	6.46	6.08	5.78	7.06		8.23	7.33	6.43
H1 lead leg	L	strides	22	14	14	14	14		15	15	16	16	17	20	177				

2022 USATF National Championships (Eugene, OR)

USATF (2022) - Results powered by Karmarush

FINAL

date 25-Jun-22

Henson (2022) - Athlete First: 2022 year end hurdle report (TV Analysis)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.20	10.14	14.21	18.48	22.85	24.63	27.36	31.89	36.53	41.31	46.08		51.41	5 / 1		*Henson (2022)*	
reaction time		interval		3.94	4.07	4.27	4.37		4.51	4.53	4.64	4.78	4.77	5.33	**WR**		12.28	13.41	14.19
		velocity	7.26	8.88	8.60	8.20	8.01	8.12	7.76	7.73	7.54	7.32	7.34	7.50	7.78		8.55	7.83	7.40
H1 lead leg	R	strides	22	14	14	14	14		14	14	14	15	15	18.2	168.2				
Wilson, Britton (USA) (2000)		time	6.57	10.57	14.75	19.01	23.42	25.14	27.96	32.53	37.20	42.14	47.38		53.08	6 / 2		*Henson (2022)*	
reaction time		interval		4.00	4.18	4.26	4.41		4.54	4.57	4.67	4.94	5.24	5.70	**PB**		12.44	13.52	14.85
		velocity	6.85	8.75	8.37	8.22	7.94	7.96	7.71	7.66	7.49	7.09	6.68	7.02	7.54		8.44	7.77	7.07
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16		160				
Little, Shamier (USA) (1995)		time	6.31	10.37	14.55	18.94	23.44	25.44	28.03	32.56	37.27	42.29	47.61	*53.94*	53.92	8 / 3		*USATF (2022)*	
reaction time		interval		4.06	4.18	4.39	4.50		4.59	4.53	4.71	5.02	5.32	6.31			12.63	13.62	15.05
		velocity	7.13	8.62	8.37	7.97	7.78	7.86	7.63	7.73	7.43	6.97	6.58	6.34	7.42		8.31	7.71	6.98
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16			144				
Cockrell, Anna (USA) (1997)		time	6.17	10.08	14.21	18.52	23.05	25.07	27.67	32.27	37.31	42.44	47.73	*54.03*	53.98	7 / 4		*USATF (2022)*	
reaction time		interval		3.91	4.13	4.31	4.53		4.62	4.60	5.04	5.13	5.29	6.25			12.35	13.75	15.46
		velocity	7.29	8.95	8.47	8.12	7.73	7.98	7.58	7.61	6.94	6.82	6.62	6.40	7.41		8.50	7.64	6.79
H1 lead leg	L	strides	22	14	14	15	15		15	16	15	16			142				
Meisberger, Shannon (USA)		time	6.42	10.46	14.57	18.86	23.27	25.34	28.03	32.89	38.21	43.67	49.67	*55.42*	55.39	9 / 5		*USATF (2022)*	
reaction time		interval		4.04	4.11	4.29	4.41		4.76	4.86	5.32	5.46	6.00	5.72	**PB**		12.44	14.03	16.78
		velocity	7.01	8.67	8.52	8.16	7.94	7.89	7.35	7.20	6.58	6.41	5.83	6.99	7.22		8.44	7.48	6.26
H1 lead leg	L	strides	22	15	15	15	15		16	16	16				130				
Russell, Masai (USA) (2000)		time	6.40	10.59	14.92	19.41	24.08	26.17	28.89	33.79	38.84	44.00	49.32	*55.66*	55.66	4 / 6		*USATF (2022)*	
reaction time		interval		4.19	4.33	4.49	4.67		4.81	4.90	5.05	5.16	5.32	6.34			13.01	14.38	15.53
		velocity	7.03	8.35	8.08	7.80	7.49	7.64	7.28	7.14	6.93	6.78	6.58	6.31	7.19		8.07	7.30	6.76
H1 lead leg	R	strides	24	16	16	16	16			17	17	17			139				
Hoffman, Lauren (USA) (199		time	6.44	10.45	14.58	18.81	23.37	25.47	28.13	33.03	38.27	43.78	49.36	*56.00*	56.00	2 / 7		*USATF (2022)*	
reaction time		interval		4.01	4.13	4.23	4.56		4.76	4.90	5.24	5.51	5.58	6.64			12.37	14.22	16.33
		velocity	6.99	8.73	8.47	8.27	7.68	7.85	7.35	7.14	6.68	6.35	6.27	6.02	7.14		8.49	7.38	6.43
H1 lead leg	L	strides	23	15	15	15	16			16	17	18			135				
Spencer, Ashley (USA) (1993		time	6.67												dnf	3 / --		*Henson (2022)*	
reaction time		interval																	
		velocity	6.75																
H1 lead leg	R	strides	23												23				

USATF (2022) - Results powered by Karmarush

Semi-Final 2

date 24-Jun-22

Henson (2022) - Athlete First: 2022 year end hurdle report (TV Analysis)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wilson, Britton (USA) (2000)		time	6.70	10.96	15.40	19.93	24.70	26.66	29.50	34.36	39.40	44.43	49.56		55.32	6 / 1		*Henson (2022)*	
reaction time		interval		4.26	4.44	4.53	4.77		4.80	4.86	5.04	5.03	5.13	5.76			13.23	14.43	15.20
		velocity	6.72	8.22	7.88	7.73	7.34	7.50	7.29	7.20	6.94	6.96	6.82	6.94	7.23		7.94	7.28	6.91
H1 lead leg	L	strides	24	16	16	16	16		16	16	16	16	16	18.5	186.5				
Cockrell, Anna (USA) (1997)		time	6.23	10.23	14.50	19.06	23.83	25.85	28.76	33.80	38.83	44.00	49.26		55.54	5 / 2		*Henson (2022)*	
reaction time		interval		4.00	4.27	4.56	4.77		4.93	5.04	5.03	5.17	5.26	6.28			12.83	14.74	15.46
		velocity	7.22	8.75	8.20	7.68	7.34	7.74	7.10	6.94	6.96	6.77	6.65	6.37	7.20		8.18	7.12	6.79
H1 lead leg	L	strides	22	14	14	15	15		15	16	16	16	16	20	179				
Little, Shamier (USA) (1995)		time	6.50	10.70	15.10	19.66	24.36	26.35	29.16	34.20	39.33	44.46	49.73		55.60	7 / 3		*Henson (2022)*	
reaction time		interval		4.20	4.40	4.56	4.70		4.80	5.04	5.13	5.13	5.27	5.87			13.16	14.54	15.53
		velocity	6.92	8.33	7.95	7.68	7.45	7.59	7.29	6.94	6.82	6.82	6.64	6.81	7.19		7.98	7.22	6.76
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	20	182				
Tate, Cassandra (USA) (1990		time	6.40	10.40	14.60	19.10	23.70	25.56	28.40	33.20	38.33	43.70	49.43		56.26	4 / 4		*Henson (2022)*	
reaction time		interval		4.00	4.20	4.50	4.60		4.70	4.80	5.13	5.37	5.73	6.83			12.70	14.10	16.23
		velocity	7.03	8.75	8.33	7.78	7.61	7.82	7.45	7.29	6.82	6.52	6.11	5.86	7.11		8.27	7.45	6.47
H1 lead leg	R	strides	22	14	14	15	15		15	15	15	16	17	21	179				
Stubler, Bianca (USA) (1999)		time	6.93	11.20	15.63	20.23	25.00	26.96	29.93	34.96	40.23	45.60	51.03		57.15	2 / 5		*Henson (2022)*	
reaction time		interval		4.27	4.43	4.60	4.77		4.93	5.03	5.27	5.37	5.43	6.12			13.30	14.73	16.07
		velocity	6.49	8.20	7.90	7.61	7.34	7.42	7.10	6.96	6.64	6.52	6.45	6.54	7.00		7.89	7.13	6.53
H1 lead leg	L	strides	24	16	16	16	16			17	17	17	17	20	176				
Barber, Kaila (USA) (1993)		time	6.26	10.23	14.43	18.86	23.66	25.76		33.80	39.10	44.70	50.46		57.41	3 / 6		*Henson (2022)*	
reaction time		interval		3.97	4.20	4.43	4.80			10.14	5.30	5.60	5.76	6.95			12.60	14.94	16.66
		velocity	7.19	8.82	8.33	7.90	7.29	7.76		6.90	6.60	6.25	6.08	5.76	6.97		8.33	7.03	6.30
H1 lead leg	L	strides	23	15	15	15	16				17	17	17	21	156				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Watson, Vanessa (USA) (200	time	6.57	10.90	15.40	20.20	25.20	27.46	30.27	35.40	40.84	46.22	51.75	*58.67*	58.67	9 / 7			*USATF (2022)*
reaction time	interval		4.33	4.50	4.80	5.00		5.07	5.13	5.44	5.38	5.53	6.92			13.63	15.20	16.35
	velocity	6.85	8.08	7.78	7.29	7.00	7.28	6.90	6.82	6.43	6.51	6.33	5.78	6.82		7.70	6.91	6.42
H1 lead leg R	strides	24	16	16	16	17		17	17	17				140				
Wise, Deshae (USA) (1999)	time	6.49	10.79	15.21	19.88	24.83	26.91	29.86	35.02	40.60	46.34	52.22	*59.42*	59.42	8 / 8			*USATF (2022)*
reaction time	interval		4.30	4.42	4.67	4.95		5.03	5.16	5.58	5.74	5.88	7.20			13.39	15.14	17.20
	velocity	6.93	8.14	7.92	7.49	7.07	7.43	6.96	6.78	6.27	6.10	5.95	5.56	6.73		7.84	6.94	6.10
H1 lead leg R	strides	24	16	16	16	16		16	17	17				138				

USATF (2022) - Results powered by Karmarush

Semi-Final 1

date 24-Jun-22

Henson (2022) - Athlete First: 2022 year end hurdle report (TV Analysis)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (	time	6.26	10.26	14.40	18.73	23.20	25.04	27.83	32.60	37.46	42.30	47.23		52.90	5 / 1		*Henson (2022)*	
reaction time	interval		4.00	4.14	4.33	4.47		4.63	4.77	4.86	4.84	4.93	5.67			12.47	13.87	14.63
	velocity	7.19	8.75	8.45	8.08	7.83	7.99	7.56	7.34	7.20	7.23	7.10	7.05	7.56		8.42	7.57	7.18
H1 lead leg R	strides	22	14	14	14	14		15	15	15	15	16	18.2	172.2				
Russell, Masai (USA) (2000)	time	6.33	10.51	14.87	19.50	24.20	26.32	29.05	33.94	38.89	43.97	49.02	*55.02*	55.02	6 / 2		*USATF (2022)*	
reaction time	interval		4.18	4.36	4.63	4.70		4.85	4.89	4.95	5.08	5.05	6.00	**PB**		13.17	14.44	15.08
	velocity	7.11	8.37	8.03	7.56	7.45	7.60	7.22	7.16	7.07	6.89	6.93	6.67	7.27		7.97	7.27	6.96
H1 lead leg R	strides	24	16	16	16	16			17	17	17			139				
Spencer, Ashley (USA) (1993	time	6.28	10.46	14.81	19.44	24.15	26.23	28.92	33.77	38.78	43.87	49.03	*55.19*	55.19	4 / 3		*USATF (2022)*	
reaction time	interval		4.18	4.35	4.63	4.71		4.77	4.85	5.01	5.09	5.16	6.16			13.16	14.33	15.26
	velocity	7.17	8.37	8.05	7.56	7.43	7.62	7.34	7.22	6.99	6.88	6.78	6.49	7.25		7.98	7.33	6.88
H1 lead leg L	strides	22	15	15	15	15			15	15	15			127				
Meisberger, Shannon (USA)	time	6.37	10.30	14.39	18.79	23.29	25.34	28.02	32.90	38.12	43.43	49.03	*55.61*	55.61	8 / 4		*USATF (2022)*	
reaction time	interval		3.93	4.09	4.40	4.50		4.73	4.88	5.22	5.31	5.60	6.58	**PB**		12.42	14.11	16.13
	velocity	7.06	8.91	8.56	7.95	7.78	7.89	7.40	7.17	6.70	6.59	6.25	6.08	7.19		8.45	7.44	6.51
H1 lead leg L	strides	22	15	15	15	15		16	16	16	17			147				
Hoffman, Lauren (USA) (199	time	6.51	10.62	14.85	19.33	23.85	26.06	28.75	33.73	38.94	44.25	49.79	*56.19*	56.19	9 / 5		*USATF (2022)*	
reaction time	interval		4.11	4.23	4.48	4.52		4.90	4.98	5.21	5.31	5.54	6.40			12.82	14.40	16.06
	velocity	6.91	8.52	8.27	7.81	7.74	7.67	7.14	7.03	6.72	6.59	6.32	6.25	7.12		8.19	7.29	6.54
H1 lead leg L	strides	23	15	15	15	16		16	16	17				133				
Bookman, Deonca (USA) (19	time	6.48	10.67	14.99	19.45	24.17	26.32	29.02	33.93	39.03	44.22	49.69	*56.24*	56.24	7 / 6		*USATF (2022)*	
reaction time	interval		4.19	4.32	4.46	4.72		4.85	4.91	5.10	5.19	5.47	6.55			12.97	14.48	15.76
	velocity	6.94	8.35	8.10	7.85	7.42	7.60	7.22	7.13	6.86	6.74	6.40	6.11	7.11		8.10	7.25	6.66
H1 lead leg L	strides	24	16	16	16	17			17	18				124				
Wright, Jessica (USA) (2000)	time	6.74	11.03	15.57	20.41	25.25	27.34	30.13	35.01	40.17	45.53	50.85	*57.09*	57.09	3 / 7		*USATF (2022)*	
reaction time	interval		4.29	4.54	4.84	4.84		4.88	4.88	5.16	5.36	5.32	6.24			13.67	14.60	15.84
	velocity	6.68	8.16	7.71	7.23	7.23	7.32	7.17	7.17	6.78	6.53	6.58	6.41	7.01		7.68	7.19	6.63
H1 lead leg R	strides	24	16	17	17	17			17	18				126				
Bellamy, Shani'a (USA) (200	time	6.42	10.73	15.23	19.82	24.72	26.82	29.59	34.70	40.09	45.50	51.69	*58.47*	58.47	2 / 8		*USATF (2022)*	
reaction time	interval		4.31	4.50	4.59	4.90		4.87	5.11	5.39	5.41	6.19	6.78			13.40	14.88	16.99
	velocity	7.01	8.12	7.78	7.63	7.14	7.46	7.19	6.85	6.49	6.47	5.65	5.90	6.84		7.84	7.06	6.18
H1 lead leg L	strides	23	15	15	15	15			16	16				115				

USATF (2022) - Results powered by Karmarush

Heat 1

date 23-Jun-22

Henson (2022) - Athlete First: 2022 Sydney McLaughlin 400m hurdles world record season

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (	time	6.37	10.41	14.61	18.98	23.42	25.30	28.09	32.90	37.87	43.01	48.21		54.11	5 / 1		*Henson (2022)*	
reaction time	interval		4.04	4.20	4.37	4.44		4.67	4.81	4.97	5.14	5.20	5.90			12.61	13.92	15.31
	velocity	7.06	8.66	8.33	8.01	7.88	7.91	7.49	7.28	7.04	6.81	6.73	6.78	7.39		8.33	7.54	6.86
H1 lead leg R	strides	22	14	14	14	14		15	15	15	16	16	18.5	173.5				
Spencer, Ashley (USA) (1993	time	6.57	10.87	15.21	19.75	24.39	26.30	29.13	33.96	39.04	44.21	49.51		55.79	4 / 2		*USATF (2022)*	
reaction time	interval		4.30	4.34	4.54	4.64		4.74	4.83	5.08	5.17	5.30	6.28			13.18	14.21	15.55
	velocity	6.85	8.14	8.06	7.71	7.54	7.60	7.38	7.25	6.89	6.77	6.60	6.37	7.17		7.97	7.39	6.75
H1 lead leg L	strides	22	15	15	15	15		15	15	15	15	15	18.2	175.2				
Barber, Kaila (USA) (1993)	time	6.40	10.54	14.84	19.32	23.85	25.71	28.66	33.56	38.84	44.21	49.65		56.00	6 / 3		*USATF (2022)*	
reaction time	interval		4.14	4.30	4.48	4.53		4.81	4.90	5.28	5.37	5.44	6.35			12.92	14.24	16.09
	velocity	7.03	8.45	8.14	7.81	7.73	7.78	7.28	7.14	6.63	6.52	6.43	6.30	7.14		8.13	7.37	6.53
H1 lead leg L	strides	23	15	15	15	15		16	16	17	17	17	20	186				
Hoffman, Lauren (USA) (199	time	6.54	10.64	14.91	19.32	23.92	25.84	28.69	33.66	38.94	44.41	49.88		56.08	3 / 4		*USATF (2022)*	
reaction time	interval		4.10	4.27	4.41	4.60		4.77	4.97	5.28	5.47	5.47	6.20			12.78	14.34	16.22
	velocity	6.88	8.54	8.20	7.94	7.61	7.74	7.34	7.04	6.63	6.40	6.40	6.45	7.13		8.22	7.32	6.47
H1 lead leg L	strides	23	15	15	15	16		16	17	18	18	18	22	193				
Knebes, Riley (USA) (1996)	time	6.59	10.92	15.44	20.03	24.84	27.02	29.86	35.02	40.42	45.94	51.59	*58.38*	58.38	9 / 5		*USATF (2022)*	
reaction time	interval		4.33	4.52	4.59	4.81		5.02	5.16	5.40	5.52	5.65	6.79			13.44	14.99	16.57
	velocity	6.83	8.08	7.74	7.63	7.28	7.40	6.97	6.78	6.48	6.34	6.19	5.89	6.85		7.81	7.00	6.34
H1 lead leg L	strides	24	16	16	16	17		17	17	18				141				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Jinks, Asia (USA) (1999)		time	6.69	10.93	15.53	20.27	25.23	27.52	30.38	35.80	41.49	47.20	52.97	*59.80*	59.80	7 / 6		*USATF (2022)*
reaction time		interval		4.24	4.60	4.74	4.96		5.15	5.42	5.69	5.71	5.77	6.83			13.58	15.53	17.17
		velocity	6.73	8.25	7.61	7.38	7.06	7.27	6.80	6.46	6.15	6.13	6.07	5.86	6.69		7.73	6.76	6.12
H1 lead leg	R	strides	24	16	16	16	17		17	18	18				142				
Wilson, Simone (USA) (1998		time	7.11	11.53	16.09	20.88	25.80	28.06	31.03	36.59	42.22	48.07	53.77	*60.20*	60.20	8 / 7		*USATF (2022)*
reaction time		interval		4.42	4.56	4.79	4.92		5.23	5.56	5.63	5.85	5.70	6.43			13.77	15.71	17.18
		velocity	6.33	7.92	7.68	7.31	7.11	7.13	6.69	6.29	6.22	5.98	6.14	6.22	6.64		7.63	6.68	6.11
H1 lead leg	R	strides	25	16	16	16	16		17	17					123				

2022 Bislett Games (Oslo, NOR) (TV Analysis)

FINAL date 16-Jun-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.32	10.34	14.48	18.62	22.88		27.38	31.98	36.66	41.58	46.74		52.61	6 / 1			
reaction time	0.177	interval		4.02	4.14	4.14	4.26		4.50	4.60	4.68	4.92	5.16	5.87			12.30	13.36	14.76
		velocity	7.12	8.71	8.45	8.45	8.22		7.78	7.61	7.48	7.11	6.78	6.81	7.60		8.54	7.86	7.11
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	16	19.5	177.5				
Ryzhykova, Anna (UKR) (19		time	6.46	10.58	14.78	19.10	23.62		28.50	33.36	38.30	43.44	48.86		54.81	7 / 2			
reaction time	0.175	interval		4.12	4.20	4.32	4.52		4.88	4.86	4.94	5.14	5.42	5.95			12.64	14.26	15.50
		velocity	6.97	8.50	8.33	8.10	7.74		7.17	7.20	7.09	6.81	6.46	6.72	7.30		8.31	7.36	6.77
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	19.2	173.2				
Knight, Jessie (GBR) (1994)		time	6.44	10.66	14.94	19.28	23.82		28.58	33.46	38.58	43.72	48.98		54.84	4 / 3			
reaction time	0.160	interval		4.22	4.28	4.34	4.54		4.76	4.88	5.12	5.14	5.26	5.86			12.84	14.18	15.52
		velocity	6.99	8.29	8.18	8.06	7.71		7.35	7.17	6.84	6.81	6.65	6.83	7.29		8.18	7.40	6.77
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.2	179.2				
Nielsen, Lina (GBR) (1996)		time	6.36	10.44	14.58	18.86	23.34		28.14	33.02	38.08	43.36	48.68		54.91	8 / 4			
reaction time	0.147	interval		4.08	4.14	4.28	4.48		4.80	4.88	5.06	5.28	5.32	6.23			12.50	14.16	15.66
		velocity	7.08	8.58	8.45	8.18	7.81		7.29	7.17	6.92	6.63	6.58	6.42	7.28		8.40	7.42	6.70
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	16	19.2	180.2				
Iuel, Amalie (NOR) (1994)		time	6.36	10.54	14.92	19.32	23.90		28.64	33.58	38.52	43.64	48.92		55.06	2 / 5			
reaction time	0.148	interval		4.18	4.38	4.40	4.58		4.74	4.94	4.94	5.12	5.28	6.14			12.96	14.26	15.34
		velocity	7.08	8.37	7.99	7.95	7.64		7.38	7.09	7.09	6.84	6.63	6.51	7.26		8.10	7.36	6.84
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16	17	19.7	183.7				
Tkachuk, Viktoriya (UKR) (19		time	6.30	10.44	14.70	19.06	23.50		28.26	33.16	38.14	43.50	48.90		55.18	5 / 6			
reaction time	0.142	interval		4.14	4.26	4.36	4.44		4.76	4.90	4.98	5.36	5.40	6.28			12.76	14.10	15.74
		velocity	7.14	8.45	8.22	8.03	7.88		7.35	7.14	7.03	6.53	6.48	6.37	7.25		8.23	7.45	6.67
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	17	17	20	183				
Kloster, Line (NOR) (1990)		time	6.28	10.40	14.78	19.18	23.72		28.54	33.54	38.64	44.08	49.66		56.07	3 / 7			
reaction time	0.135	interval		4.12	4.38	4.40	4.54		4.82	5.00	5.10	5.44	5.58	6.41			12.90	14.36	16.12
		velocity	7.17	8.50	7.99	7.95	7.71		7.26	7.00	6.86	6.43	6.27	6.24	7.13		8.14	7.31	6.51
H1 lead leg	R	strides	22	14	15	15	15		15	16	16	17	17	20	182				
Krafzik, Carolina (GER) (199		time	6.34	10.42	14.64	19.02	23.72		28.74	33.84	39.10	44.82	51.06		58.74	1 / 8			
reaction time	0.170	interval		4.08	4.22	4.38	4.70		5.02	5.10	5.26	5.72	6.24	7.68			12.68	14.82	17.22
		velocity	7.10	8.58	8.29	7.99	7.45		6.97	6.86	6.65	6.12	5.61	5.21	6.81		8.28	7.09	6.10
H1 lead leg	L	strides	23	15	15	15	17		17	17		18	20		157				

2022 Japanese National Championsips (Osaka, JPN)

FINAL date 12-Jun-22

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Yamamoto, Ami (JPN) (2002)		time	6.82	11.24	15.75	20.37	25.03		29.81	34.77	39.81	44.93	50.20		56.38	6 / 1			
reaction time	0.219	interval		4.42	4.51	4.62	4.66		4.78	4.96	5.04	5.12	5.27	6.18	**PB**		13.55	14.40	15.43
		velocity	6.60	7.92	7.76	7.58	7.51		7.32	7.06	6.94	6.84	6.64	6.47	7.09		7.75	7.29	6.80
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	21	194				
Utsunomiya, Eri (JPN) (1993)		time	6.62	10.93	15.41	19.99	24.64		29.53	34.52	39.74	44.99	50.45		56.90	4 / 2			
reaction time	0.206	interval		4.31	4.48	4.58	4.65		4.89	4.99	5.22	5.25	5.46	6.45			13.37	14.53	15.93
		velocity	6.80	8.12	7.81	7.64	7.53		7.16	7.01	6.70	6.67	6.41	6.20	7.03		7.85	7.23	6.59
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	22	188				
Matsuoka, Moe (JPN) (2003)		time	6.82	11.46	16.20	21.02	25.91		30.98	36.05	41.26	46.51	51.75		57.57	9 / 3			
reaction time	0.215	interval		4.64	4.74	4.82	4.89		5.07	5.07	5.21	5.25	5.24	5.82	**PB**		14.20	15.03	15.70
		velocity	6.60	7.54	7.38	7.26	7.16		6.90	6.90	6.72	6.67	6.68	6.87	6.95		7.39	6.99	6.69
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	17	17		173				
Umehara, Satsuki (JPN) (199		time	6.79	11.28	15.82	20.52	25.31		30.20	35.22	40.41	45.75	51.23		57.61	8 / 4			
reaction time	0.231	interval		4.49	4.54	4.70	4.79		4.89	5.02	5.19	5.34	5.48	6.38			13.73	14.70	16.01
		velocity	6.63	7.80	7.71	7.45	7.31		7.16	6.97	6.74	6.55	6.39	6.27	6.94		7.65	7.14	6.56
H1 lead leg	R	strides	23	16	16	17	17		17	17	17	18	18		176				
Ito, Akiko (JPN) (1995)		time	6.62	10.99	15.55	20.25	24.97		29.82	34.78	40.09	45.58	51.23		58.18	5 / 5			
reaction time	0.198	interval		4.37	4.56	4.70	4.72		4.85	4.96	5.31	5.49	5.65	6.95			13.63	14.53	16.45

		velocity	6.80	8.01	7.68	7.45	7.42	7.22	7.06	6.59	6.38	6.19	5.76	6.88		7.70	7.23	6.38
H1 lead leg	L	strides	23	16	16	16	16	16	16	17	17	17		170				
Aoki, Honoka (JPN) (2001)		time	6.64	10.96	15.48	20.05	24.79	29.73	34.98	40.37	46.00	51.75		58.38	3 / 6			
reaction time	0.220	interval		4.32	4.52	4.57	4.74	4.94	5.25	5.39	5.63	5.75	6.63			13.41	14.93	16.77
		velocity	6.78	8.10	7.74	7.66	7.38	7.09	6.67	6.49	6.22	6.09	6.03	6.85		7.83	7.03	6.26
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	18	17		174				
Tsujii, Mio (JPN) (1999)		time	6.77	11.28	15.93	20.65	25.53	30.56	35.77	41.11	46.60	52.20		58.60	2 / 7			
reaction time	0.244	interval		4.51	4.65	4.72	4.88	5.03	5.21	5.34	5.49	5.60	6.40	=PB		13.88	15.12	16.43
		velocity	6.65	7.76	7.53	7.42	7.17	6.96	6.72	6.55	6.38	6.25	6.25	6.83		7.56	6.94	6.39
H1 lead leg	R	strides	24	16	16	16	16	17	17	17	18	18		175				
Kudo, Mei (JPN) (2002)		time	6.87	11.51	16.13	20.92	25.88	30.93	36.16	41.57	47.10	52.71		59.16	7 / 8			
reaction time	0.213	interval		4.64	4.62	4.79	4.96	5.05	5.23	5.41	5.53	5.61	6.45			14.05	15.24	16.55
		velocity	6.55	7.54	7.58	7.31	7.06	6.93	6.69	6.47	6.33	6.24	6.20	6.76		7.47	6.89	6.34
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	17	18		174				

2022 Japanese U20 National Championsips (Osaka, JPN)

FINAL date 12-Jun-22

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Naito, Kano (JPN) (2004)		time	6.86	11.39	16.10	21.05	26.04		31.05	36.24	41.59	47.26	53.04		59.40	6 / 1			
reaction time	0.203	interval		4.53	4.71	4.95	4.99		5.01	5.19	5.35	5.67	5.78	6.36			14.19	15.19	16.80
		velocity	6.56	7.73	7.43	7.07	7.01		6.99	6.74	6.54	6.17	6.06	6.29	6.73		7.40	6.91	6.25
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	18	18	22	197				
Tsukamoto, Moeno (JPN) (2		time	6.89	11.41	16.10	21.10	26.19		31.28	36.50	41.93	47.55	53.29		59.96	7 / 2			
reaction time	0.180	interval		4.52	4.69	5.00	5.09		5.09	5.22	5.43	5.62	5.74	6.67			14.21	15.40	16.79
		velocity	6.53	7.74	7.46	7.00	6.88		6.88	6.70	6.45	6.23	6.10	6.00	6.67		7.39	6.82	6.25
H1 lead leg	R	strides	24	17	17	17	17		17	18	18	19	19	23	206				
Natsume, Saaya (JPN) (2004)		time	6.87	11.38	16.06	20.99	25.98		31.05	36.27	41.94	47.80	53.67		60.28	5 / 3			
reaction time	0.162	interval		4.51	4.68	4.93	4.99		5.07	5.22	5.67	5.86	5.87	6.61			14.12	15.28	17.40
		velocity	6.55	7.76	7.48	7.10	7.01		6.90	6.70	6.17	5.97	5.96	6.05	6.64		7.44	6.87	6.03
H1 lead leg	L	strides	25	17	17	17	17		17	17	19	19	19	22.5	206.5				
Kusaka, Ayana (JPN) (2003)		time	7.01	11.54	16.27	21.25	26.29		31.48	36.87	42.53	48.37	54.24		60.50	8 / 4			
reaction time	0.196	interval		4.53	4.73	4.98	5.04		5.19	5.39	5.66	5.84	5.87	6.26			14.24	15.62	17.37
		velocity	6.42	7.73	7.40	7.03	6.94		6.74	6.49	6.18	5.99	5.96	6.39	6.61		7.37	6.72	6.04
H1 lead leg	R	strides	24	17	17	17	17		17	17	19	19	19	22.5	205.5				
Masuko, Meri (JPN) (2003)		time	6.99	11.56	16.35	21.20	26.18		31.35	36.64	42.18	48.15	54.29		60.81	9 / 5			
reaction time	0.162	interval		4.57	4.79	4.85	4.98		5.17	5.29	5.54	5.97	6.14	6.52			14.21	15.44	17.65
		velocity	6.44	7.66	7.31	7.22	7.03		6.77	6.62	6.32	5.86	5.70	6.13	6.58		7.39	6.80	5.95
H1 lead leg	R	strides	24	17	17	17	17		17	17	17	18	19	22	202				
Wasada, Mahiro (JPN) (2004)		time	6.99	11.61	16.33	21.22	26.28		31.53	36.95	42.61	48.57	54.60		61.34	4 / 6			
reaction time	0.175	interval		4.62	4.72	4.89	5.06		5.25	5.42	5.66	5.96	6.03	6.74			14.23	15.73	17.65
		velocity	6.44	7.58	7.42	7.16	6.92		6.67	6.46	6.18	5.87	5.80	5.93	6.52		7.38	6.68	5.95
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	19	19	22	203				
Ogasawara, Arisa (JPN) (200		time	7.22	12.01	16.78	21.89	27.16		32.40	37.87	43.58	49.33	55.64		62.72	2 / 7			
reaction time	0.201	interval		4.79	4.77	5.11	5.27		5.24	5.47	5.71	5.75	6.31	7.08			14.67	15.98	17.77
		velocity	6.23	7.31	7.34	6.85	6.64		6.68	6.40	6.13	6.09	5.55	5.65	6.38		7.16	6.57	5.91
H1 lead leg	L	strides	24	16	16	17	17		17	18	18	18	19		180				
Hattori, Rira (JPN) (2004)		time	7.01	11.85	16.70	21.81	27.16		32.55	38.14	43.98	49.90	56.11		63.08	3 / 8			
reaction time	0.199	interval		4.84	4.85	5.11	5.35		5.39	5.59	5.84	5.92	6.21	6.97			14.80	16.33	17.97
		velocity	6.42	7.23	7.22	6.85	6.54		6.49	6.26	5.99	5.91	5.64	5.74	6.34		7.09	6.43	5.84
H1 lead leg	L	strides	24	17	17	17	18		18	19	19	19	19		187				

2022 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

FINAL date 09-Jun-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.43	10.47	14.63	18.90	23.27	25.06	27.80	32.47	37.24	42.13	47.27		53.02	5 / 1			
reaction time	0.188	interval		4.04	4.16	4.27	4.37		4.53	4.67	4.77	4.89	5.14	5.75			12.47	13.57	14.80
		velocity	7.00	8.66	8.41	8.20	8.01	7.98	7.73	7.49	7.34	7.16	6.81	6.96	7.54		8.42	7.74	7.09
H1 lead leg	L	strides	22	15	15	15			15	15	15	15	15	19.5	161.5				
Russell, Janieve (JAM) (1993		time	6.47	10.67	15.03	19.47	23.93	25.78	28.50	33.23	37.93	42.93	48.23		54.18	6 / 2			
reaction time	0.140	interval		4.20	4.36	4.44	4.46		4.57	4.73	4.70	5.00	5.30	5.95			13.00	13.76	15.00
		velocity	6.96	8.33	8.03	7.88	7.85	7.76	7.66	7.40	7.45	7.00	6.60	6.72	7.38		8.08	7.63	7.00
H1 lead leg	R	strides	23	15	15	15			15	16	16	17	17	20	169				
Ryzhykova, Anna (UKR) (19		time	6.53	10.67	14.80	19.07	23.60	25.52	28.33	33.13	38.07	43.10	48.47		54.50	4 / 3			
reaction time	0.187	interval		4.14	4.13	4.27	4.53		4.73	4.80	4.94	5.03	5.37	6.03			12.54	14.06	15.34
		velocity	6.89	8.45	8.47	8.20	7.73	7.84	7.40	7.29	7.09	6.96	6.52	6.63	7.34		8.37	7.47	6.84
H1 lead leg	R	strides	22	14	14	14			15	15	15	15	16	19.5	159.5				

Nielsen, Lina (GBR) (1996)		time	6.40	10.53	14.83	19.23	23.80	25.64	28.50	33.40	38.40	43.50	48.70		54.73	9 / 4			
reaction time	0.148	interval		4.13	4.30	4.40	4.57		4.70	4.90	5.00	5.10	5.20	6.03	PB		12.83	14.17	15.30
		velocity	7.03	8.47	8.14	7.95	7.66	7.80	7.45	7.14	7.00	6.86	6.73	6.63	7.31		8.18	7.41	6.86
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16	16	19	182				
Clayton, Rushell (JAM) (199		time	6.43	10.50	14.67	19.00	23.47	25.33	28.20	33.03	38.00	43.20	48.60		54.80	7 / 5			
reaction time	0.164	interval		4.07	4.17	4.33	4.47		4.73	4.83	4.97	5.20	5.40	6.20			12.57	14.03	15.57
		velocity	7.00	8.60	8.39	8.08	7.83	7.90	7.40	7.25	7.04	6.73	6.48	6.45	7.30		8.35	7.48	6.74
H1 lead leg	L	strides	23	15	15	15			16	16	16	17	17	20	170				
Folorunso, Ayomide (ITA) (1		time	6.60	10.87	15.13	19.53	23.93	25.88	28.60	33.33	38.33	43.47	48.70		54.84	3 / 6			
reaction time	0.192	interval		4.27	4.26	4.40	4.40		4.67	4.73	5.00	5.14	5.23	6.14			12.93	13.80	15.37
		velocity	6.82	8.20	8.22	7.95	7.95	7.73	7.49	7.40	7.00	6.81	6.69	6.51	7.29		8.12	7.61	6.83
H1 lead leg	L	strides	23	15	15	15			16	16	16	17	17	20.5	170.5				
Tkachuk, Viktoriya (UKR) (19		time	6.43	10.60	14.93	19.30	23.83	25.73	28.50	33.30	38.33	43.60	49.03		55.37	8 / 7			
reaction time	0.193	interval		4.17	4.33	4.37	4.53		4.67	4.80	5.03	5.27	5.43	6.34			12.87	14.00	15.73
		velocity	7.00	8.39	8.08	8.01	7.73	7.77	7.49	7.29	6.96	6.64	6.45	6.31	7.22		8.16	7.50	6.68
H1 lead leg	L	strides	22	15	15	15			15	15	16	16	17	20	166				
Olivieri, Linda (ITA) (1998)		time	6.63	10.93	15.33		24.53	26.50	29.40	34.40	39.60	44.83	50.13		56.25	2 / 8			
reaction time	0.150	interval		4.30	4.40		9.20		4.87	5.00	5.20	5.23	5.30	6.12					15.73
		velocity	6.79	8.14	7.95		7.61	7.55	7.19	7.00	6.73	6.69	6.60	6.54	7.11				6.68
H1 lead leg	R	strides	23	15	15	15			15	15	17	17	17		149				
Giger, Yasmin (SUI) (1999)		time	6.53	10.83	15.30		24.70	26.64	29.57	34.60	39.70	45.13			56.52	1 / 9			
reaction time	0.155	interval		4.30	4.47		9.40		4.87	5.03	5.10	5.43							
		velocity	6.89	8.14	7.83		7.45	7.51	7.19	6.96	6.86	6.45			7.08				
H1 lead leg	R	strides	23	15	15	15			15	16	16	17			132				

2022 Music City Track Carnival (Nashville, TN) (TV Analysis)

FINAL date 05-Jun-22 *(H5 5m long)* *Henson (2022) - Athlete First: 2022 year end hurdle report*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	5.84	10.37	14.46	18.65	23.42		27.27	31.87	36.50	41.33	46.33		51.61	5 / 1			
reaction time		interval		4.53	4.09	4.19	4.77		3.85	4.60	4.63	4.83	5.00	5.28			12.81	13.22	14.46
		velocity	7.71	7.73	8.56	8.35	8.39		9.09	7.61	7.56	7.25	7.00	7.58	7.75		8.20	7.94	7.26
H1 lead leg	R	strides		14	14	14	16		13	15	15		16		117				
Knight, Andrenette (JAM) (1		time		10.14	14.23	18.35	23.28		27.27	32.10	37.04	42.11	47.35		53.39	4 / 2			
reaction time		interval			4.09	4.12	4.93		3.99	4.83	4.94	5.07	5.24	6.04	PB		18.35	13.75	15.25
		velocity		7.89	8.56	8.50	8.11		8.77	7.25	7.09	6.90	6.68	6.62	7.49		5.72	7.64	6.89
H1 lead leg		strides			15	15	17		13	16	16		16		108				
Woodruff, Gianna (PAN) (19		time	6.45	10.54	14.80	19.23	24.40		28.54	33.36	38.36	43.32			54.63	6 / 3			
reaction time		interval		4.09	4.26	4.43	5.17		4.14	4.82	5.00	4.96					12.78	14.13	
		velocity	6.98	8.56	8.22	7.90	7.74		8.45	7.26	7.00	7.06			7.32		8.22	7.43	
H1 lead leg	L	strides	23	15	15	15	17		13		16	16			130				
Tate, Cassandra (USA) (1990		time	6.38	10.58	14.83	19.29	24.60		28.66	33.39	38.22	43.26	48.56		54.81	7 / 4			
reaction time		interval		4.20	4.25	4.46	5.31		4.06	4.73	4.83	5.04	5.30	6.25			12.91	14.10	15.17
		velocity	7.05	8.33	8.24	7.85	7.53		8.62	7.40	7.25	6.94	6.60	6.40	7.30		8.13	7.45	6.92
H1 lead leg	L	strides	21	14	14	14	17		13	15	15	15			138				

2022 Golden Spike (Ostrava, CZE) (TV Analysis) (300m Hurdle

FINAL date 31-May-22 *Henson (2022) - Athlete First: 2022 year end hurdle report*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.87	10.50		18.57	22.78		27.27	31.77					36.86	5 / 1			
reaction time	0.215	interval		3.63		8.07	4.21		4.49	4.50				5.09	WB PB		11.70	13.20	
		velocity	7.28	9.64		8.67	8.31		7.80	7.78				7.86	8.14		8.97	7.95	
H1 lead leg	L	strides	24	15			15		15	15				18.5	102.5				
Tkachuk, Viktoriya (UKR) (19		time	6.90	10.70	14.83	19.07	23.50		28.25	32.88					38.24	3 / 2			
reaction time	0.246	interval		3.80	4.13	4.24	4.43		4.75	4.63				5.36	NR PB		12.17	13.81	
		velocity	7.25	9.21	8.47	8.25	7.90		7.37	7.56				7.46	7.85		8.63	7.60	
H1 lead leg	L	strides	24	15	15	15	15			15				19	118				
Ryzhykova, Anna (UKR) (19		time	7.20	11.05	15.17	19.37	23.73		28.46	33.20					38.36	6 / 3			
reaction time	0.208	interval		3.85	4.12	4.20	4.36		4.73	4.74				5.16	PB		12.17	13.83	
		velocity	6.94	9.09	8.50	8.33	8.03		7.40	7.38				7.75	7.82		8.63	7.59	
H1 lead leg	R	strides	24	14		14	14			15				18	99				
Lehikoinen, Viivi (FIN) (1999)		time	6.90			19.03	23.45		28.28	33.03					38.50	7 / 4			
reaction time	0.202	interval				12.13	4.42		4.83	4.75				5.47	NR PB		12.13	14.00	
		velocity	7.25			8.66	7.92		7.25	7.37				7.31	7.79		8.66	7.50	
H1 lead leg	R	strides	26			16	16			16				19.7	93.7				
Knight, Jessie (GBR) (1994)		time	6.97	10.87	15.03	19.40	23.90		28.77	33.50					38.84	4 / 5			
reaction time	0.170	interval		3.90	4.16	4.37	4.50		4.87	4.73				5.34	NR PB		12.43	14.10	
		velocity	7.17	8.97	8.41	8.01	7.78		7.19	7.40				7.49	7.72		8.45	7.45	

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	R	strides	24	15	15	15	15			15				18.2	117.2			

2022 Müller Birmingham Diamond League (Birmingham, GBR) (TV Analysis)

FINAL date 21-May-22

Henson (2022) - Athlete First: 2022 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.30	10.23	14.43	18.73	23.27	25.11	28.03	33.03	38.06	43.23	48.45		54.54	4 / 1			
reaction time	0.160	interval		3.93	4.20	4.30	4.54		4.76	5.00	5.03	5.17	5.22	6.09			12.43	14.30	15.42
		velocity	7.14	8.91	8.33	8.14	7.71	7.96	7.35	7.00	6.96	6.77	6.70	6.57	7.33		8.45	7.34	6.81
H1 lead leg	R	strides	22	14	15	15	15		15	16	16	16	16	20	180				
Tkachuk, Viktoriya (UKR) (19		time	6.50		14.96	19.30	23.80	25.60	28.43	33.33	38.40	43.57	49.00		55.25	3 / 2			
reaction time	0.188	interval			8.46	4.34	4.50		4.63	4.90	5.07	5.17	5.43	6.25			12.80	14.03	15.67
		velocity	6.92		8.27	8.06	7.78	7.81	7.56	7.14	6.90	6.77	6.45	6.40	7.24		8.20	7.48	6.70
H1 lead leg	L	strides	22			15	15		15	16	16	17	17	20.7	153.7				
Ryzhykova, Anna (UKR) (19		time	6.53	10.66	14.83	19.17	23.70	25.61	28.67	33.63	38.80	44.07	49.43		55.37	5 / 3			
reaction time	0.173	interval		4.13	4.17	4.34	4.53		4.97	4.96	5.17	5.27	5.36	5.94			12.64	14.46	15.80
		velocity	6.89	8.47	8.39	8.06	7.73	7.81	7.04	7.06	6.77	6.64	6.53	6.73	7.22		8.31	7.26	6.65
H1 lead leg	R	strides	22	14	14	14	14		15	15	16	16	16	19.2	175.2				
Nielsen, Lina (GBR) (1996)		time	6.43	10.67	15.03	19.43	24.07	25.94	28.93	33.90		44.17	49.47		55.40	8 / 4			
reaction time	0.156	interval		4.24	4.36	4.40	4.64		4.86	4.97		10.27	5.30	5.93			13.00	14.47	15.57
		velocity	7.00	8.25	8.03	7.95	7.54	7.71	7.20	7.04		6.82	6.60	6.75	7.22		8.08	7.26	6.74
H1 lead leg	L	strides	23	15	15	15	15		16	16			16	19.2	150.2				
Woodruff, Gianna (PAN) (19		time	6.50	10.50	14.80	19.17	23.80	25.62	28.57	33.50	38.70	43.87	49.25		55.43	7 / 5			
reaction time	0.218	interval		4.00	4.30	4.37	4.63		4.77	4.93	5.20	5.17	5.38	6.18			12.67	14.33	15.75
		velocity	6.92	8.75	8.14	8.01	7.56	7.81	7.34	7.10	6.73	6.77	6.51	6.47	7.22		8.29	7.33	6.67
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	17	20	182				
Knight, Jessie (GBR) (1994)		time	6.43		15.03	19.47	24.03	25.82	28.83	33.73	39.00	44.23	49.63		55.50	2 / 6			
reaction time	0.147	interval			8.60	4.44	4.56		4.80	4.90	5.27	5.23	5.40	5.87			13.04	14.26	15.90
		velocity	7.00		8.14	7.88	7.68	7.75	7.29	7.14	6.64	6.69	6.48	6.81	7.21		8.05	7.36	6.60
H1 lead leg	R	strides	22			15	15		15	15	16	16	16	19.2	149.2				
Russell, Janieve (JAM) (1993		time	6.35	10.40	14.50	18.83	23.40	25.18	28.17	33.10	38.30	43.70	49.33		56.21	6 / 7			
reaction time	0.135	interval		4.05	4.10	4.33	4.57		4.77	4.93	5.20	5.40	5.63	6.88			12.48	14.27	16.23
		velocity	7.09	8.64	8.54	8.08	7.66	7.94	7.34	7.10	6.73	6.48	6.22	5.81	7.12		8.41	7.36	6.47
H1 lead leg	R	strides	23	15	15	15	16		16	16	17	17	17	21	188				
Turner, Jessica (GBR) (1995)		time	6.67	10.70	14.83	19.03	23.62	25.49	28.40	33.40		44.33	50.40		57.43	9 / 8			
reaction time	0.240	interval		4.03	4.13	4.20	4.59		4.78	5.00		10.93	6.07	7.03			12.36	14.37	17.00
		velocity	6.75	8.68	8.47	8.33	7.63	7.85	7.32	7.00		6.40	5.77	5.69	6.97		8.50	7.31	6.18
H1 lead leg	L	strides	25	15	15	15	16		16	17			19		138				

2022 Shizuoka International Athletics Meeting (Fukuroi, JPN)

FINAL date 03-May-22

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Barber, Kalia (USA) (1993)		time	6.32	10.44	14.75	19.25	23.99		28.85	33.88	39.04	44.38	50.02		56.55	4 / 1			
reaction time	0.181	interval		4.12	4.31	4.50	4.74		4.86	5.03	5.16	5.34	5.64	6.53			12.93	14.63	16.14
		velocity	7.12	8.50	8.12	7.78	7.38		7.20	6.96	6.78	6.55	6.21	6.13	7.07		8.12	7.18	6.51
H1 lead leg	L	strides	23	15	15	15	16		16	17	17	17	18	21	190				
Utsunomiya, Eri (JPN) (1993)		time	6.67	10.96	15.47	20.07	24.82		29.86	34.92	40.14	45.53	51.08		57.43	9 / 2			
reaction time	0.217	interval		4.29	4.51	4.60	4.75		5.04	5.06	5.22	5.39	5.55	6.35			13.40	14.85	16.16
		velocity	6.75	8.16	7.76	7.61	7.37		6.94	6.92	6.70	6.49	6.31	6.30	6.97		7.84	7.07	6.50
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	21	187				
Umehara, Satsuki (JPN) (199		time	6.86	11.33	15.87	20.52	25.26		30.16	35.20	40.29	45.66	51.22		57.61	5 / 3			
reaction time	0.229	interval		4.47	4.54	4.65	4.74		4.90	5.04	5.09	5.37	5.56	6.39			13.66	14.68	16.02
		velocity	6.56	7.83	7.71	7.53	7.38		7.14	6.94	6.88	6.52	6.29	6.26	6.94		7.69	7.15	6.55
H1 lead leg	L	strides	24	16	16	16	17		17	17	17	18	18	22.2	198.2				
Yamamoto, Ami (JPN) (2002)		time	6.86	11.39	16.10	20.87	25.76		30.81	36.04	41.21	46.46	51.77		57.98	6 / 4			
reaction time	0.220	interval		4.53	4.71	4.77	4.89		5.05	5.23	5.17	5.25	5.31	6.21			14.01	15.17	15.73
		velocity	6.56	7.73	7.43	7.34	7.16		6.93	6.69	6.77	6.67	6.59	6.44	6.90		7.49	6.92	6.68
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	21	193				
Yokota, Karen (JPN) (1999)		time	6.74	11.26	15.92	20.72	25.59		30.61	35.70	40.91	46.28	51.90		58.37	8 / 5			
reaction time	0.183	interval		4.52	4.66	4.80	4.87		5.02	5.09	5.21	5.37	5.62	6.47			13.98	14.98	16.20
		velocity	6.68	7.74	7.51	7.29	7.19		6.97	6.88	6.72	6.52	6.23	6.18	6.85		7.51	7.01	6.48
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17		172				
Aoki, Honoka (JPN) (2001)		time	6.76	11.18	15.67	20.29	25.06		29.98	35.24	40.52	46.15	51.97		58.56	2 / 6			
reaction time	0.215	interval		4.42	4.49	4.62	4.77		4.92	5.26	5.28	5.63	5.82	6.59			13.53	14.95	16.73
		velocity	6.66	7.92	7.80	7.58	7.34		7.11	6.65	6.63	6.22	6.01	6.07	6.83		7.76	7.02	6.28
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18		174				
Ito, Akiko (JPN) (1995)		time	6.71	11.14	15.73	20.62	25.54		30.43	35.55	40.87	46.43	52.34		59.32	3 / 7			

reaction time	0.170	interval		4.43	4.59	4.89	4.92	4.89	5.12	5.32	5.56	5.91	6.98			13.91	14.93	16.79
		velocity	6.71	7.90	7.63	7.16	7.11	7.16	6.84	6.58	6.29	5.92	5.73	6.74		7.55	7.03	6.25
H1 lead leg	L	strides	23	15	15	16	16	16	16	17	17	17		168				
Kudo, Mei (JPN) (2002)		time	7.01	11.68	16.38	21.34	26.46	31.70	36.97	42.29	47.71	53.37		59.49	7 / 8			
reaction time	0.205	interval		4.67	4.70	4.96	5.12	5.24	5.27	5.32	5.42	5.66	6.12			14.33	15.63	16.40
		velocity	6.42	7.49	7.45	7.06	6.84	6.68	6.64	6.58	6.46	6.18	6.54	6.72		7.33	6.72	6.40
H1 lead leg	L	strides	24	16	16	17	17	17	17	17	17	18		176				

2022 Michitaka Kinami Memorial (Osaka, JPN)

A Race

date 30-Apr-22

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Barber, Kalia (USA) (1993)		time	6.31	10.38	14.68	19.14	24.04		29.05	34.30	39.61	45.11	50.92		57.45	7 / 1			
reaction time	0.181	interval		4.07	4.30	4.46	4.90		5.01	5.25	5.31	5.50	5.81	6.53			12.83	15.16	16.62
		velocity	7.13	8.60	8.14	7.85	7.14		6.99	6.67	6.59	6.36	6.02	6.13	6.96		8.18	6.93	6.32
H1 lead leg	L	strides	23	15	15	15	16		16	17	17	17	18	21.2	190.2				
Utsunomiya, Eri (JPN) (1993)		time	6.54	10.79	15.20	19.80	24.56		29.56	34.77	40.12	45.58	51.22		57.64	4 / 2			
reaction time	0.175	interval		4.25	4.41	4.60	4.76		5.00	5.21	5.35	5.46	5.64	6.42			13.26	14.97	16.45
		velocity	6.88	8.24	7.94	7.61	7.35		7.00	6.72	6.54	6.41	6.21	6.23	6.94		7.92	7.01	6.38
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	21.5	187.5				
Yamamoto, Ami (JPN) (2002)		time	6.79	11.23	15.85	20.51	25.36		30.51	35.77	41.12	46.53	51.94		58.11	5 / 3			
reaction time	0.182	interval		4.44	4.62	4.66	4.85		5.15	5.26	5.35	5.41	5.41	6.17			13.72	15.26	16.17
		velocity	6.63	7.88	7.58	7.51	7.22		6.80	6.65	6.54	6.47	6.47	6.48	6.88		7.65	6.88	6.49
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	21	194				
Umehara, Satsuki (JPN) (199		time	6.72	11.18	15.80	20.50	25.36		30.30	35.42	40.62	46.18	51.84		58.41	8 / 4			
reaction time	0.163	interval		4.46	4.62	4.70	4.86		4.94	5.12	5.20	5.56	5.66	6.57			13.78	14.92	16.42
		velocity	6.70	7.85	7.58	7.45	7.20		7.09	6.84	6.73	6.29	6.18	6.09	6.85		7.62	7.04	6.39
H1 lead leg	R	strides	24	16	16	17	17		17	17	17	18	18		177				
Ito, Akiko (JPN) (1995)		time	6.64	11.14	15.78	20.59	25.46		30.45	35.52	40.77	46.18	51.79		58.43	9 / 5			
reaction time	0.131	interval		4.50	4.64	4.81	4.87		4.99	5.07	5.25	5.41	5.61	6.64			13.95	14.93	16.27
		velocity	6.78	7.78	7.54	7.28	7.19		7.01	6.90	6.67	6.47	6.24	6.02	6.85		7.53	7.03	6.45
H1 lead leg	L	strides	23	16	16	16	16		16	16	17	17	17		170				
Yokota, Karen (JPN) (1999)		time	6.62	11.03	15.60	20.30	25.14		30.21	35.42	40.77	46.35	52.45		59.39	6 / 6			
reaction time	0.158	interval		4.41	4.57	4.70	4.84		5.07	5.21	5.35	5.58	6.10	6.94			13.68	15.12	17.03
		velocity	6.80	7.94	7.66	7.45	7.23		6.90	6.72	6.54	6.27	5.74	5.76	6.74		7.68	6.94	6.17
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	18		173				

B Race

date 30-Apr-22

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Aoki, Honoka (JPN) (2001)		time	6.66	11.13	15.67	20.35	25.19		30.31	35.57	40.96	46.58	52.32		58.85	7 / 1			
reaction time	0.181	interval		4.47	4.54	4.68	4.84		5.12	5.26	5.39	5.62	5.74	6.53			13.69	15.22	16.75
		velocity	6.76	7.83	7.71	7.48	7.23		6.84	6.65	6.49	6.23	6.10	6.13	6.80		7.67	6.90	6.27
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	22	197				

C Race

date 30-Apr-22

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tsujii, Mio (JPN) (1999)		time	6.81	11.31	15.95	20.79	25.73		30.80	35.94	41.17	46.75	52.40		59.04	6 / 1			
reaction time	0.185	interval		4.50	4.64	4.84	4.94		5.07	5.14	5.23	5.58	5.65	6.64	PB		13.98	15.15	16.46
		velocity	6.61	7.78	7.54	7.23	7.09		6.90	6.81	6.69	6.27	6.19	6.02	6.78		7.51	6.93	6.38
H1 lead leg	R	strides	24	16	16	17	17		17	17	17	18	18	22.7	199.7				

2021 Weltklasse (Zürich, SUI) (TV Analysis)

FINAL

date 09-Sep-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.36	10.40		18.88	23.24	25.0	27.80	32.52	37.24	42.16	47.20		52.80	4 / 1			
reaction time	0.172	interval		4.04		8.48	4.36		4.56	4.72	4.72	4.92	5.04	5.60			12.52	13.64	14.68
		velocity	7.08	8.66		8.25	8.03	8.00	7.68	7.42	7.42	7.11	6.94	7.14	7.58		8.39	7.70	7.15
H1 lead leg	L	strides	22	15			15		15	15	15	15	15	18.7	145.7				
Little, Shamier (USA) (1995)		time	6.20	10.28		18.84	23.28	25.1	27.80	32.48	37.24	42.24	47.36		53.35	3 / 2			
reaction time	0.165	interval		4.08		8.56	4.44		4.52	4.68	4.76	5.00	5.12	5.99			12.64	13.64	14.88
		velocity	7.26	8.58		8.18	7.88	7.97	7.74	7.48	7.35	7.00	6.84	6.68	7.50		8.31	7.70	7.06
H1 lead leg	R	strides	22	15			15		15	15	16	16	16	20	150				
Ryzhykova, Anna (UKR) (19		time	6.40	10.40	14.56	18.88	23.28	25.1	27.92	32.68	37.48	42.52	47.76		53.70	5 / 3			
reaction time	0.160	interval		4.00	4.16	4.32	4.40		4.64	4.76	4.80	5.04	5.24	5.94			12.48	13.80	15.08
		velocity	7.03	8.75	8.41	8.10	7.95	7.97	7.54	7.35	7.29	6.94	6.68	6.73	7.45		8.41	7.61	6.96
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	19.2	173.2				
Tkachuk, Viktoriya (UKR) (19		time	6.36	10.52		19.16	23.52	25.3	27.96	32.64		42.40	47.60		53.76	7 / 4			
reaction time	0.192	interval		4.16		8.64	4.36		4.44	4.68		9.76	5.20	6.16	PB		12.80	13.48	14.96
		velocity	7.08	8.41		8.10	8.03	7.91	7.88	7.48		7.17	6.73	6.49	7.44		8.20	7.79	7.02
H1 lead leg	L	strides	20	18			15		15	15		16	16	20	135				

Woodruff, Gianna (PAN) (19		time	6.36	10.32		18.96	23.48	25.4	28.16	32.96	37.92	43.00	48.28		54.50	2 / 5			
reaction time	0.192	interval		3.96		8.64	4.52		4.68	4.80	4.96	5.08	5.28	6.22			12.60	14.00	15.32
		velocity	7.08	8.84		8.10	7.74	7.87	7.48	7.29	7.06	6.89	6.63	6.43	7.34		8.33	7.50	6.85
H1 lead leg	L	strides	23	15			15		15	15		16	16	19.2	134.2				
Hailey, Nnenya (USA) (1994)		time	6.36	10.48			23.68	25.5	28.28	32.96	37.68	42.84	48.28		55.06	1 / 6			
reaction time	0.183	interval		4.12			13.20		4.60	4.68	4.72	5.16	5.44	6.78					15.32
		velocity	7.08	8.50			7.95	7.84	7.61	7.48	7.42	6.78	6.43	5.90	7.26				6.85
H1 lead leg	L	strides	23	16					17	17		18	18	23	132				
Russell, Janieve (JAM) (1993		time	6.44	10.68	15.00	19.40	23.84	25.7	28.56	33.48	38.48	43.84			55.74	6 / 7			
reaction time	0.145	interval		4.24	4.32	4.40	4.44		4.72	4.92	5.00	5.36					12.96	14.08	
		velocity	6.99	8.25	8.10	7.95	7.88	7.78	7.42	7.11	7.00	6.53			7.18		8.10	7.46	
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	17			148				
Sprunger, Leá (SUI) (1990)		time	6.64	10.92		19.76	24.36	26.2	29.08	34.00	38.96				55.87	8 / 8			
reaction time	0.155	interval		4.28		8.84	4.60		4.72	4.92	4.96						13.12	14.24	
		velocity	6.78	8.18		7.92	7.61	7.63	7.42	7.11	7.06				7.16		8.00	7.37	
H1 lead leg	R	strides	23	15			15		15	15		15			98				

2021 Meeting de Paris (Paris, FRA) (TV Analysis)

FINAL date 28-Aug-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Woodruff, Gianna (PAN) (19		time	6.33	10.52	14.92		23.92		28.53	33.28	38.07	43.12	48.35		54.44	7 / 1			
reaction time	0.206	interval		4.19	4.40		9.00		4.61	4.75	4.79	5.05	5.23	6.09					15.07
		velocity	7.11	8.35	7.95		7.78		7.59	7.37	7.31	6.93	6.69	6.57	7.35				6.97
H1 lead leg	L	strides	23	15	15	15			15	15	15	16	16	19.5	164.5				
Ryzhykova, Anna (UKR) (19		time	6.33	10.52	14.82		23.75		28.52	33.37	38.30	43.33	48.60		54.59	6 / 2			
reaction time	0.175	interval		4.19	4.30		8.93		4.77	4.85	4.93	5.03	5.27	5.99					15.23
		velocity	7.11	8.35	8.14		7.84		7.34	7.22	7.10	6.96	6.64	6.68	7.33				6.89
H1 lead leg	R	strides	22	14	14	14			15	15	15	15	15	19	158				
Russell, Janieve (JAM) (1993		time	6.28	10.48	14.85	19.35	23.88		28.53	33.37	38.07	43.18	48.43		54.75	4 / 3			
reaction time	0.162	interval		4.20	4.37	4.50	4.53		4.65	4.84	4.70	5.11	5.25	6.32			13.07	14.02	15.06
		velocity	7.17	8.33	8.01	7.78	7.73		7.53	7.23	7.45	6.85	6.67	6.33	7.31		8.03	7.49	6.97
H1 lead leg	R	strides	22	15	15	15	15		16	16	16	17	17	20	184				
Hailey, Nnenya (USA) (1994)		time	6.12	10.20	14.52	19.02	23.55		28.18		37.70	42.85	48.22		54.78	1 / 4			
reaction time	0.187	interval		4.08	4.32	4.50	4.53		4.63		9.52	5.15	5.37	6.56			12.90		
		velocity	7.35	8.58	8.10	7.78	7.73		7.56		7.35	6.80	6.52	6.10	7.30		8.14		
H1 lead leg	L	strides	23	16	16	17			17	17	18	18	19	24	185				
Tkachuk, Viktoriya (UKR) (19		time	6.32	10.53	14.95		23.95		28.53		38.08	43.20	48.65		54.93	3 / 5			
reaction time	0.228	interval		4.21	4.42		9.00		4.58		9.55	5.12	5.45	6.28					
		velocity	7.12	8.31	7.92		7.78		7.64		7.33	6.84	6.42	6.37	7.28				
H1 lead leg	L	strides	22	15	15	15			15	15	16	16	17	20	166				
Zapletalová, Emma (SVK) (20		time	6.42	10.70	15.12		23.95		28.50	33.23	38.20	43.46	49.00		55.61	8 / 6			
reaction time	0.138	interval		4.28	4.42		8.83		4.55	4.73	4.97	5.26	5.54	6.61					15.77
		velocity	7.01	8.18	7.92		7.93		7.69	7.40	7.04	6.65	6.32	6.05	7.19				6.66
H1 lead leg	R	strides	23	15	15	15			15	15		16	16	20.2	150.2				
Couckuyt, Paulien (BEL) (19		time	6.37	10.48	14.82		23.95		28.75	33.71	38.95	44.30	49.95		56.36	2 / 7			
reaction time	0.169	interval		4.11	4.34		9.13		4.80	4.96	5.24	5.35	5.65	6.41					16.24
		velocity	7.06	8.52	8.06		7.67		7.29	7.06	6.68	6.54	6.19	6.24	7.10				6.47
H1 lead leg	L	strides	23	15	15	16			16	16	16	17	18	21	173				
Little, Shamier (USA) (1995)		time	6.27	10.63	15.22	19.75	24.32		28.98	33.85	38.90	44.37	50.10		57.18	5 / 8			
reaction time	0.222	interval		4.36	4.59	4.53	4.57		4.66	4.87	5.05	5.47	5.73	7.08			13.48	14.10	16.25
		velocity	7.18	8.03	7.63	7.73	7.66		7.51	7.19	6.93	6.40	6.11	5.65	7.00		7.79	7.45	6.46
H1 lead leg	R	strides	23	16	16	15	15		16	16	16	17	17	20.2	187.2				

2021 Athletissima (Lausanne, SUI) (TV Analysis)

FINAL date 26-Aug-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.32	10.36	14.48		23.24		27.84	32.60	37.40	42.32	47.32		53.05	4 / 1			
reaction time	0.186	interval		4.04	4.12		8.76		4.60	4.76	4.80	4.92	5.00	5.73					14.72
		velocity	7.12	8.66	8.50		7.99		7.61	7.35	7.29	7.11	7.00	6.98	7.54				7.13
H1 lead leg	L	strides	22	15	15				15	15	15	15	15	18.7	145.7				
Little, Shamier (USA) (1995)		time	6.20	10.24	14.40				27.76	32.52	37.32	42.28	47.48		53.78	3 / 2			
reaction time	0.202	interval		4.04	4.16				13.36	4.76	4.80	4.96	5.20	6.30					14.96
		velocity	7.26	8.66	8.41				7.86	7.35	7.29	7.06	6.73	6.35	7.44				7.02
H1 lead leg	R	strides	23	15	15					16	16	16	17	20	138				
Ryzhykova, Anna (UKR) (19		time	6.44	10.52	14.68		23.52		28.32	33.16	38.04	43.04	48.32		54.32	2 / 3			
reaction time	0.162	interval		4.08	4.16		8.84		4.80	4.84	4.88	5.00	5.28	6.00					15.16
		velocity	6.99	8.58	8.41		7.92		7.29	7.23	7.17	7.00	6.63	6.67	7.36				6.93

H1 lead leg	R	strides	22	14	14			15	15	15	15	16	19	145				
Muhammad, Dalilah (USA) (		time	6.12	10.08	14.40	18.88	23.52	28.28	33.12	38.12	43.36	48.56		54.50	5 / 4			
reaction time	0.189	interval		3.96	4.32	4.48	4.64	4.76	4.84	5.00	5.24	5.20	5.94			12.76	14.24	15.44
		velocity	7.35	8.84	8.10	7.81	7.54	7.35	7.23	7.00	6.68	6.73	6.73	7.34		8.23	7.37	6.80
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	16	16	19	178				
Sprunger, Leá (SUI) (1990)		time	6.36	10.56	14.88	19.24	23.88	28.64	33.52	38.52	43.60	48.88		54.75	7 / 5			
reaction time	0.176	interval		4.20	4.32	4.36	4.64	4.76	4.88	5.00	5.08	5.28	5.87			12.88	14.28	15.36
		velocity	7.08	8.33	8.10	8.03	7.54	7.35	7.17	7.00	6.89	6.63	6.81	7.31		8.15	7.35	6.84
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	18	170				
Russell, Janieve (JAM) (1993		time	6.24	10.24	14.44	18.72	23.28	28.08	32.84	37.84	42.96	48.36		54.89	6 / 6			
reaction time	0.136	interval		4.00	4.20	4.28	4.56	4.80	4.76	5.00	5.12	5.40	6.53			12.48	14.12	15.52
		velocity	7.21	8.75	8.33	8.18	7.68	7.29	7.35	7.00	6.84	6.48	6.13	7.29		8.41	7.44	6.77
H1 lead leg	R	strides	23	15	15	15	16	16	16	16	16	17	20	185				
Nugent, Leah (JAM) (1992)		time	6.24	10.44	14.84		24.24	28.96	33.80	38.96	44.16	49.76		56.41	1 / 7			
reaction time	0.202	interval		4.20	4.40		9.40	4.72	4.84	5.16	5.20	5.60	6.65					15.96
		velocity	7.21	8.33	7.95		7.45	7.42	7.23	6.78	6.73	6.25	6.02	7.09				6.58
H1 lead leg	R	strides	22	15	15			15	15	15	15	16	19	147				
Tkachuk, Viktoriya (UKR) (19		time	6.36	10.56	14.92	19.36	24.04	28.92	34.04		44.72			56.53	8 / 8			
reaction time	0.190	interval		4.20	4.36	4.44	4.68	4.88	5.12		10.68					13.00	14.68	
		velocity	7.08	8.33	8.03	7.88	7.48	7.17	6.84		6.55			7.08		8.08	7.15	
H1 lead leg	L	strides	22	15	15	15	15	16	16	16				130				

2021 Prefontaine Classic (Eugene, OR) (TV Analysis)

FINAL date 21-Aug-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.12	10.06	14.12	18.28	22.64	24.6	27.12	31.84	36.66	41.64	46.76		52.77	5 / 1			
reaction time	0.164	interval		3.94	4.06	4.16	4.36		4.48	4.72	4.82	4.98	5.12	6.01			12.16	13.56	14.92
		velocity	7.35	8.88	8.62	8.41	8.03	8.13	7.81	7.42	7.26	7.03	6.84	6.66	7.58		8.63	7.74	7.04
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.2	179.2				
Little, Shamier (USA) (1995)		time	6.28	10.40	14.60	18.88	23.46	25.4	28.20	33.10	37.96	42.88	47.88		53.79	6 / 2			
reaction time	0.190	interval		4.12	4.20	4.28	4.58		4.74	4.90	4.86	4.92	5.00	5.91			12.60	14.22	14.78
		velocity	7.17	8.50	8.33	8.18	7.64	7.87	7.38	7.14	7.20	7.11	7.00	6.77	7.44		8.33	7.38	7.10
H1 lead leg	R	strides	23	15	15	15	16		16	16	16	17	16	19	184				
Woodruff, Gianna (PAN) (19		time	6.40	10.44	14.64	18.96	23.38	25.4	28.00	32.84	37.68	42.72	47.88		54.20	8 / 3			
reaction time	0.249	interval		4.04	4.20	4.32	4.42		4.62	4.84	4.84	5.04	5.16	6.32	**NR PB**		12.56	13.88	15.04
		velocity	7.03	8.66	8.33	8.10	7.92	7.87	7.58	7.23	7.23	6.94	6.78	6.33	7.38		8.36	7.56	6.98
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16	19.2	179.2				
Ryzhykova, Anna (UKR) (19		time	6.52	10.64	14.84	19.12	23.52	25.5		33.12	38.00	43.00	48.22		54.40	3 / 4			
reaction time	0.162	interval		4.12	4.20	4.28	4.40			9.60	4.88	5.00	5.22	6.18			12.60	14.00	15.10
		velocity	6.90	8.50	8.33	8.18	7.95	7.84		7.29	7.17	7.00	6.70	6.47	7.35		8.33	7.50	6.95
H1 lead leg	R	strides	22	14	14	14	14				15	15	15	20	143				
Russell, Janieve (JAM) (1993		time	6.36	10.52	14.76	19.04	23.48	25.4		33.04	37.88	42.92	48.28		54.50	4 / 5			
reaction time	0.155	interval		4.16	4.24	4.28	4.44			9.56	4.84	5.04	5.36	6.22			12.68	14.00	15.24
		velocity	7.08	8.41	8.25	8.18	7.88	7.87		7.32	7.23	6.94	6.53	6.43	7.34		8.28	7.50	6.89
H1 lead leg	R	strides	23	15	15	15	15				16	17	18	20.5	154.5				
Hailey, Nnenya (USA) (1994)		time	6.12	10.24	14.52	18.88	23.24	25.2			37.60	42.72	48.48		55.16	1 / 6			
reaction time	0.153	interval		4.12	4.28	4.36	4.36				14.36	5.12	5.76	6.68			12.76		
		velocity	7.35	8.50	8.18	8.03	8.03	7.94			7.31	6.84	6.08	5.99	7.25		8.23		
H1 lead leg	L	strides	24	16	16	16	16					17	19	23	147				
Whyte, Ronda (JAM) (1990)		time	6.44	10.72	15.08	19.60	24.36	26.4	29.32	34.36	39.36	44.52			55.57	7 / 7			
reaction time	0.153	interval		4.28	4.36	4.52	4.76		4.96	5.04	5.00	5.16					13.16	14.76	
		velocity	6.99	8.18	8.03	7.74	7.35	7.58	7.06	6.94	7.00	6.78			7.20		7.98	7.11	
H1 lead leg	L	strides	23	15	15	15	16			16	16	17			133				
Nugent, Leah (JAM) (1992)		time	6.32	10.52	14.72	19.08	23.64	25.7	28.44	33.36	38.48	43.84			55.86	9 / 8			
reaction time	0.228	interval		4.20	4.20	4.36	4.56		4.80	4.92	5.12	5.36					12.76	14.28	
		velocity	7.12	8.33	8.33	8.03	7.68	7.78	7.29	7.11	6.84	6.53			7.16		8.23	7.35	
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16			143				
Watson, Sage (CAN) (1994)		time	6.48	10.80	15.16	19.64	24.24	26.3			39.64	44.96			56.52	2 / 9			
reaction time	0.163	interval		4.32	4.36	4.48	4.60				15.40	5.32					13.16		
		velocity	6.94	8.10	8.03	7.81	7.61	7.60			6.82	6.58			7.08		7.98		
H1 lead leg	R	strides	22	15	15	15	15					16			98				

2020 Olympic Games (Tokyo, JPN) (TV Analysis)

FINAL date 04-Aug-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.16	10.16	14.24	18.36	22.64		27.00	31.56	36.32	41.20	46.04		51.46	4 / 1			

reaction time	0.163	interval		4.00	4.08	4.12	4.28	4.36	4.56	4.76	4.88	4.84	5.42	WR		12.20	13.20	14.48
		velocity	7.31	8.75	8.58	8.50	8.18	8.03	7.68	7.35	7.17	7.23	7.38	7.77		8.61	7.95	7.25
H1 lead leg	R	strides	22	14	14	14	14	14	14	15	16	15	18.5	170.5				
Muhammad, Dalilah (USA) (		time	6.04	9.92	13.92	18.08	22.44	26.84	31.36	36.04	40.88	45.84		51.58	7 / 2			
reaction time	0.200	interval		3.88	4.00	4.16	4.36	4.40	4.52	4.68	4.84	4.96	5.74	PB		12.04	13.28	14.48
		velocity	7.45	9.02	8.75	8.41	8.03	7.95	7.74	7.48	7.23	7.06	6.97	7.75		8.72	7.91	7.25
H1 lead leg	R	strides	22	14	14	15	15	15	15	15	16	16	19	176				
Bol, Femke (NED) (2000)		time	6.28	10.26	14.28	18.36	22.56	26.96	31.60	36.28	41.16	46.16		52.03	5 / 3			
reaction time	0.165	interval		3.98	4.02	4.08	4.20	4.40	4.64	4.68	4.88	5.00	5.87	AR		12.08	13.24	14.56
		velocity	7.17	8.79	8.71	8.58	8.33	7.95	7.54	7.48	7.17	7.00	6.81	7.69		8.69	7.93	7.21
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	15	15	19	176				
Russell, Janieve (JAM) (1993		time	6.40	10.52	14.68	18.88	23.20	27.68	32.32	37.08	42.00	47.12		53.08	6 / 4			
reaction time	0.136	interval		4.12	4.16	4.20	4.32	4.48	4.64	4.76	4.92	5.12	5.96	PB		12.48	13.44	14.80
		velocity	7.03	8.50	8.41	8.33	8.10	7.81	7.54	7.35	7.11	6.84	6.71	7.54		8.41	7.81	7.09
H1 lead leg	R	strides	23	15	15	15	15	15	15	16	16	17	19.7	181.7				
Ryzhykova, Anna (UKR) (19		time	6.40	10.48	14.60	18.80	23.08	27.68	32.44	37.28	42.32	47.52		53.48	2 / 5			
reaction time	0.177	interval		4.08	4.12	4.20	4.28	4.60	4.76	4.84	5.04	5.20	5.96			12.40	13.64	15.08
		velocity	7.03	8.58	8.50	8.33	8.18	7.61	7.35	7.23	6.94	6.73	6.71	7.48		8.47	7.70	6.96
H1 lead leg	R	strides	22	14	14	14	14	15	15	15	15	16	19.2	173.2				
Tkachuk, Viktoriya (UKR) (19		time	6.40	10.56	14.80	19.06	23.40	27.88	32.56	37.48	42.60	47.80		53.79	3 / 6			
reaction time	0.206	interval		4.16	4.24	4.26	4.34	4.48	4.68	4.92	5.12	5.20	5.99	PB		12.66	13.50	15.24
		velocity	7.03	8.41	8.25	8.22	8.06	7.81	7.48	7.11	6.84	6.73	6.68	7.44		8.29	7.78	6.89
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16	19.7	179.7				
Cockrell, Anna (USA) (1997)		time	6.28	10.44	14.64	19.00	23.52	28.12	32.80	37.76	42.80	47.96		*54.22*	8 / ~~7~~	*(no official time given)*		
reaction time		interval		4.16	4.20	4.36	4.52	4.60	4.68	4.96	5.04	5.16	6.26	DQ		12.72	13.80	15.16
		velocity	7.17	8.41	8.33	8.03	7.74	7.61	7.48	7.06	6.94	6.78	6.39	7.38		8.25	7.61	6.93
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16		160				
Woodruff, Gianna (PAN) (19		time	6.44	10.54	14.84	19.32	23.88	28.52	33.40	38.44				55.84	9 / ~~8~~ 7			
reaction time	0.235	interval		4.10	4.30	4.48	4.56	4.64	4.88	5.04						12.88	14.08	
		velocity	6.99	8.54	8.14	7.81	7.68	7.54	7.17	6.94				7.16		8.15	7.46	
H1 lead leg	L	strides	23	15	15	15	15	15	15	15				128				

Semi-Final 3

date 02-Aug-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.48	10.60	14.76	19.04	23.40		27.92	32.56	37.32	42.24	47.32		53.91	5 / 1			
reaction time	0.215	interval		4.12	4.16	4.28	4.36		4.52	4.64	4.76	4.92	5.08	6.59			12.56	13.52	14.76
		velocity	6.94	8.50	8.41	8.18	8.03		7.74	7.54	7.35	7.11	6.89	6.07	7.42		8.36	7.77	7.11
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				

Semi-Final 2

date 02-Aug-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.20	10.20	14.32	18.52	22.88		27.52	32.24	37.04	42.04	47.20		53.03	5 / 1			
reaction time	0.204	interval		4.00	4.12	4.20	4.36		4.64	4.72	4.80	5.00	5.16	5.83			12.32	13.72	14.96
		velocity	7.26	8.75	8.50	8.33	8.03		7.54	7.42	7.29	7.00	6.78	6.86	7.54		8.52	7.65	7.02
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	16	16	18.5	173.5				

Semi-Final 1

date 02-Aug-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.04	10.00	14.08	18.36	22.88		27.40	32.12	37.00	42.04	47.24		53.30	7 / 1			
reaction time	0.186	interval		3.96	4.08	4.28	4.52		4.52	4.72	4.88	5.04	5.20	6.06			12.32	13.76	15.12
		velocity	7.45	8.84	8.58	8.18	7.74		7.74	7.42	7.17	6.94	6.73	6.60	7.50		8.52	7.63	6.94
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				

Heat 5

date 31-Jul-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.10	10.01	14.25	18.58	23.15		27.93	32.63	37.47	42.64	47.85		53.97	3 / 1			
reaction time	0.189	interval		3.91	4.24	4.33	4.57		4.78	4.70	4.84	5.17	5.21	6.12			12.48	14.05	15.22
		velocity	7.38	8.95	8.25	8.08	7.66		7.32	7.45	7.23	6.77	6.72	6.54	7.41		8.41	7.47	6.90
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				

Heat 4

date 31-Jul-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.40	10.47	14.61	18.88	23.32		27.83	32.46	37.27	42.47	47.78		54.43	8 / 1			
reaction time	0.194	interval		4.07	4.14	4.27	4.44		4.51	4.63	4.81	5.20	5.31	6.65			12.48	13.58	15.32
		velocity	7.03	8.60	8.45	8.20	7.88		7.76	7.56	7.28	6.73	6.59	6.02	7.35		8.41	7.73	6.85
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19	178				

Heat 3

date 31-Jul-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.36	10.52	14.80	19.26	23.80		28.56	33.48	38.44	43.58	48.74		54.65	5 / 1			
reaction time	0.176	interval		4.16	4.28	4.46	4.54		4.76	4.92	4.96	5.14	5.16	5.91			12.90	14.22	15.26
		velocity	7.08	8.41	8.18	7.85	7.71		7.35	7.11	7.06	6.81	6.78	6.77	7.32		8.14	7.38	6.88

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	R	strides	22	14	14	14	14		15	15	15	16	16	18.5	173.5			

2021 Japanese High School National Championships (Fukui, JPN)

FINAL date 30-Jul-21

Shibayama (2021) - national high school and U20 national championhsips

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Taneru, Asuruhan Marino (J		time	6.69	11.21	15.98	20.75	25.59		30.86	36.09	41.36	46.68	52.04		57.98	4 / 1			
reaction time	0.151	interval		4.52	4.77	4.77	4.84		5.27	5.23	5.27	5.32	5.36	5.94	**PB**		14.06	15.34	15.95
		velocity	6.73	7.74	7.34	7.34	7.23		6.64	6.69	6.64	6.58	6.53	6.73	6.90		7.47	6.84	6.58
H1 lead leg		strides		16	16	16	16		17	17	18	18	18		152				
Kawachi, Sena (JPN) (2003)		time	6.77	11.31	16.10	21.01	26.06		31.10	36.19	41.57	46.97	52.43		58.32	3 / 2			
reaction time	0.192	interval		4.54	4.79	4.91	5.05		5.04	5.09	5.38	5.40	5.46	5.89			14.24	15.18	16.24
		velocity	6.65	7.71	7.31	7.13	6.93		6.94	6.88	6.51	6.48	6.41	6.79	6.86		7.37	6.92	6.47
H1 lead leg		strides		16	16	16	17		17	17	17	18	18		152				
Okawa, Sumika (JPN) (2003)		time	6.72	11.11	15.73	20.65	25.66		30.73	36.02	41.62	47.32	53.35		60.11	6 / 3			
reaction time	0.168	interval		4.39	4.62	4.92	5.01		5.07	5.29	5.60	5.70	6.03	6.76			13.93	15.37	17.33
		velocity	6.70	7.97	7.58	7.11	6.99		6.90	6.62	6.25	6.14	5.80	5.92	6.65		7.54	6.83	6.06
H1 lead leg		strides		15	15	16	16		16	16	17	17	17		145				
Kusaka, Ayana (JPN) (2003)		time	6.73	11.36	16.07	20.95	25.96		31.03	36.40	42.28	48.14	54.14		60.46	7 / 4			
reaction time	0.173	interval		4.63	4.71	4.88	5.01		5.07	5.37	5.88	5.86	6.00	6.32			14.22	15.45	17.74
		velocity	6.69	7.56	7.43	7.17	6.99		6.90	6.52	5.95	5.97	5.83	6.33	6.62		7.38	6.80	5.92
H1 lead leg		strides		15	15	16	16		16	16	17	17	18		146				
Naito, Kano (JPN) (2004)		time	6.68	11.16	15.93	20.94	26.18		31.63	37.02	42.90	48.74	54.54		60.54	5 / 5			
reaction time	0.196	interval		4.48	4.77	5.01	5.24		5.45	5.39	5.88	5.84	5.80	6.00			14.26	16.08	17.52
		velocity	6.74	7.81	7.34	6.99	6.68		6.42	6.49	5.95	5.99	6.03	6.67	6.61		7.36	6.53	5.99
H1 lead leg		strides		17	17	17	17		19	17	19	19	19		161				
Hamachiyo, Rinka (JPN) (20(		time	6.92	11.61	16.68	21.83	27.00		32.30	37.90	43.67	49.46	55.38		61.44	2 / 6			
reaction time	0.168	interval		4.69	5.07	5.15	5.17		5.30	5.60	5.77	5.79	5.92	6.06			14.91	16.07	17.48
		velocity	6.50	7.46	6.90	6.80	6.77		6.60	6.25	6.07	6.04	5.91	6.60	6.51		7.04	6.53	6.01
H1 lead leg		strides		17	18	17	17		18	18	18	19	19		161				
Otsu, Yui (JPN) (2004)		time	6.90	11.54	16.48	21.57	26.80		32.22	37.79	43.62	49.50	55.49		62.06	1 / 7			
reaction time	0.190	interval		4.64	4.94	5.09	5.23		5.42	5.57	5.83	5.88	5.99	6.57			14.67	16.22	17.70
		velocity	6.52	7.54	7.09	6.88	6.69		6.46	6.28	6.00	5.95	5.84	6.09	6.45		7.16	6.47	5.93
H1 lead leg		strides		16	17	17	18		18	18	19	19	19		161				
Kudo, Mitsuki (JPN) (2004)		time	7.40	12.31	17.40	22.56	28.01		33.45	38.89	44.56	50.27	56.10		62.41	8 / 8			
reaction time	0.285	interval		4.91	5.09	5.16	5.45		5.44	5.44	5.67	5.71	5.83	6.31			15.16	16.33	17.21
		velocity	6.08	7.13	6.88	6.78	6.42		6.43	6.43	6.17	6.13	6.00	6.34	6.41		6.93	6.43	6.10
H1 lead leg		strides		19	19	17	19		19	19	19	19	19		169				

2021 Chinese Student Games (Qingdao, CHN)

FINAL date 14-Jul-21

CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.74	11.17	15.61	20.28	25.05		29.99	35.09	40.43	45.80	51.23		57.50	5 / 1			
reaction time		interval		4.43	4.44	4.67	4.77		4.94	5.10	5.34	5.37	5.43	6.27			13.54	14.81	16.14
		velocity	6.68	7.90	7.88	7.49	7.34		7.09	6.86	6.55	6.52	6.45	6.38	6.96		7.75	7.09	6.51
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	18	21.2	197.2				

2021 Müller British Grand Prix (Gateshead, GBR) (TV Analysis)

FINAL date 13-Jul-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.38	10.42	14.60	18.90	23.30	25.2	27.78	32.42	37.28	42.28	47.38		53.24	5 / 1			
reaction time	0.214	interval		4.04	4.18	4.30	4.40		4.48	4.64	4.86	5.00	5.10	5.86			12.52	13.52	14.96
		velocity	7.05	8.66	8.37	8.14	7.95	7.94	7.81	7.54	7.20	7.00	6.86	6.83	7.51		8.39	7.77	7.02
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				
Little, Shamier (USA) (1995)		time	6.40	10.56	14.82	19.16	23.58	25.5	28.12	32.92	37.90	43.10	48.38		54.53	4 / 2			
reaction time	0.214	interval		4.16	4.26	4.34	4.42		4.54	4.80	4.98	5.20	5.28	6.15			12.76	13.76	15.46
		velocity	7.03	8.41	8.22	8.06	7.92	7.84	7.71	7.29	7.03	6.73	6.63	6.50	7.34		8.23	7.63	6.79
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	17	19	182				
Russell, Janieve (JAM) (1993		time	6.30	10.48	14.76	19.08	23.54	25.5	28.14	32.94	37.94	43.10	48.40		54.66	6 / 3			
reaction time	0.106	interval		4.18	4.28	4.32	4.46		4.60	4.80	5.00	5.16	5.30	6.26			12.78	13.86	15.46
		velocity	7.14	8.37	8.18	8.10	7.85	7.84	7.61	7.29	7.00	6.78	6.60	6.39	7.32		8.22	7.58	6.79
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	20.5	184.5				
Knight, Jessie (GBR) (1994)		time	6.34	10.56	14.90	19.30	23.80	25.7	28.46	33.32	38.36	43.60	48.78		54.69	3 / 4			
reaction time	0.147	interval		4.22	4.34	4.40	4.50		4.66	4.86	5.04	5.24	5.18	5.91			12.96	14.02	15.46
		velocity	7.10	8.29	8.06	7.95	7.78	7.78	7.51	7.20	6.94	6.68	6.76	6.77	7.31		8.10	7.49	6.79
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19	179				
Hailey, Nnenya (USA) (1994)		time	6.30	10.44	14.82	19.28	23.84	25.8	28.58	33.44	38.38	43.46	48.98		55.16	7 / 5			
reaction time	0.181	interval		4.14	4.38	4.46	4.56		4.74	4.86	4.94	5.08	5.52	6.18			12.98	14.16	15.54
		velocity	7.14	8.45	7.99	7.85	7.68	7.75	7.38	7.20	7.09	6.89	6.34	6.47	7.25		8.09	7.42	6.76

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	L	strides	24	16	16	16	16		16	17	18	17	18	21.7	195.7				
Sprunger, Leá (SUI) (1990)		time	6.30	10.52	14.82	19.20	23.78	25.7	28.46	33.34	38.50	43.72	49.18		55.39	8 / 6			
reaction time	0.123	interval		4.22	4.30	4.38	4.58		4.68	4.88	5.16	5.22	5.46	6.21			12.90	14.14	15.84
		velocity	7.14	8.29	8.14	7.99	7.64	7.78	7.48	7.17	6.78	6.70	6.41	6.44	7.22		8.14	7.43	6.63
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	16	16	19	173				
Beesley, Meghan (GBR) (198		time	6.38	10.64	15.02	19.42	24.00	26.0	28.76	33.80	39.06	44.72	50.40		57.04	1 / 7			
reaction time	0.145	interval		4.26	4.38	4.40	4.58		4.76	5.04	5.26	5.66	5.68	6.64			13.04	14.38	16.60
		velocity	7.05	8.22	7.99	7.95	7.64	7.69	7.35	6.94	6.65	6.18	6.16	6.02	7.01		8.05	7.30	6.33
H1 lead leg	L	strides	24	16	16	16	16		17	18	18	19	19	23	202				

2021 István Gyulai Memorial (Székesfehérvár, HUN) (TV Analysis)

FINAL date 06-Jul-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.40	10.41	14.56	18.77	23.02		27.49	32.20	36.97	41.97	47.14		52.81	5 / 1			
reaction time	0.247	interval		4.01	4.15	4.21	4.25		4.47	4.71	4.77	5.00	5.17	5.67			12.37	13.43	14.94
		velocity	7.03	8.73	8.43	8.31	8.24		7.83	7.43	7.34	7.00	6.77	7.05	7.57		8.49	7.82	7.03
H1 lead leg	L	strides	22	15	15	15	15		15		15	15	15	19.2	161.2				
Little, Shamier (USA) (1995)		time	6.40	10.58	14.78	19.04	23.39		27.83	32.42	37.23	42.12	47.21		52.85	6 / 2			
reaction time	0.339	interval		4.18	4.20	4.26	4.35		4.44	4.59	4.81	4.89	5.09	5.64			12.64	13.38	14.79
		velocity	7.03	8.37	8.33	8.22	8.05		7.88	7.63	7.28	7.16	6.88	7.09	7.57		8.31	7.85	7.10
H1 lead leg	R	strides	22	15	15	15	15		15		16	16	16	19.5	164.5				
Russell, Janieve (JAM) (1993		time	6.27	10.46	14.60	18.92	23.27		27.79	32.52	37.47	42.49	47.64		53.68	4 / 3			
reaction time	0.168	interval		4.19	4.14	4.32	4.35		4.52	4.73	4.95	5.02	5.15	6.04			12.65	13.60	15.12
		velocity	7.18	8.35	8.45	8.10	8.05		7.74	7.40	7.07	6.97	6.80	6.62	7.45		8.30	7.72	6.94
H1 lead leg	R	strides	23	15	15	15	15		15		16	16	17	20	167				
Tkachuk, Viktoriya (UKR) (19		time	6.34	10.56	14.80	19.14	23.56		28.15	32.86	37.70	42.87	48.03		54.02	8 / 4			
reaction time	0.260	interval		4.22	4.24	4.34	4.42		4.59	4.71	4.84	5.17	5.16	5.99	**PB**		12.80	13.72	15.17
		velocity	7.10	8.29	8.25	8.06	7.92		7.63	7.43	7.23	6.77	6.78	6.68	7.40		8.20	7.65	6.92
H1 lead leg	L	strides		15	15	15	15		15		15	16	16	19.2	141.2				
Hailey, Nnenya (USA) (1994)		time	6.40	10.51	14.61	18.97	23.49		28.19		38.05	43.14	48.34		54.42	2 / 5			
reaction time	0.338	interval		4.11	4.10	4.36	4.52		4.70		9.86	5.09	5.20	6.08			12.57		
		velocity	7.03	8.52	8.54	8.03	7.74		7.45		7.10	6.88	6.73	6.58	7.35		8.35		
H1 lead leg	L	strides		16	16	16	17		17			18	18		118				
Sprunger, Leá (SUI) (1990)		time	6.30	10.53	14.80	19.12	23.64		28.44	33.40	38.67	44.19			56.24	7 / 6			
reaction time	0.224	interval		4.23	4.27	4.32	4.52		4.80	4.96	5.27	5.52					12.82	14.28	
		velocity	7.14	8.27	8.20	8.10	7.74		7.29	7.06	6.64	6.34			7.11		8.19	7.35	
H1 lead leg	R	strides		15	14	14	15		15		16	16	17		122				
Watson, Sage (CAN) (1994)		time	6.34			19.17	23.69		28.43		38.84	44.36	49.98		56.32	1 / 7			
reaction time	0.167	interval				12.83	4.52		4.74		10.41	5.52	5.62	6.34			12.83		
		velocity	7.10			8.18	7.74		7.38		6.72	6.34	6.23	6.31	7.10		8.18		
H1 lead leg	R	strides					15		15			17	17		64				
Spencer, Ashley (USA) (1993		time	6.44	10.61	14.90	19.20	23.76		28.63		39.07	44.64	50.30		56.91	3 / 8			
reaction time	0.204	interval		4.17	4.29	4.30	4.56		4.87		10.44	5.57	5.66	6.61			12.76		
		velocity	6.99	8.39	8.16	8.14	7.68		7.19		6.70	6.28	6.18	6.05	7.03		8.23		
H1 lead leg	L	strides		15	15	14	14		15			16	16		105				

2021 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

FINAL date 04-Jul-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.24	10.24	14.26	18.45	22.78	24.8	27.31	31.96	36.72	41.58	46.60		52.37	5 / 1			
reaction time	0.195	interval		4.00	4.02	4.19	4.33		4.53	4.65	4.76	4.86	5.02	5.77	**NR PB**		12.21	13.51	14.64
		velocity	7.21	8.75	8.71	8.35	8.08	8.06	7.73	7.53	7.35	7.20	6.97	6.93	7.64		8.60	7.77	7.17
H1 lead leg	L	strides		15	15	15	15		15	15	15	15	15	19	154				
Little, Shamier (USA) (1995)		time	6.18	10.28	14.42	18.78	23.28	25.2	27.72	32.26	36.92	41.72	46.72		52.39	6 / 2			
reaction time	0.200	interval		4.10	4.14	4.36	4.50		4.44	4.54	4.66	4.80	5.00	5.67	**PB**		12.60	13.48	14.46
		velocity	7.28	8.54	8.45	8.03	7.78	7.94	7.88	7.71	7.51	7.29	7.00	7.05	7.64		8.33	7.79	7.26
H1 lead leg	R	strides		15	15	15	15		15	15	15	16	16	19.7	156.7				
Ryzhykova, Anna (UKR) (19		time	6.34	10.30	14.36		22.84	24.8	27.42	32.12	36.88	41.78	47.02		52.96	3 / 3			
reaction time	0.183	interval		3.96	4.06		8.48		4.58	4.70	4.76	4.90	5.24	5.94	**NR PB**				14.90
		velocity	7.10	8.84	8.62		8.25	8.06	7.64	7.45	7.35	7.14	6.68	6.73	7.55				7.05
H1 lead leg	R	strides	22	14	14				15	15	15	15	16	19.2	145.2				
Russell, Janieve (JAM) (1993		time	6.25	10.40	14.58		23.34	25.3	27.86	32.62	37.54	42.48	47.72		54.08	4 / 4			
reaction time	0.151	interval		4.15	4.18		8.76		4.52	4.76	4.92	4.94	5.24	6.36					15.10
		velocity	7.20	8.43	8.37		7.99	7.91	7.74	7.35	7.11	7.09	6.68	6.29	7.40				6.95
H1 lead leg	R	strides		15	15				15	16	16	16	16	20	129				
Tkachuk, Viktoriya (UKR) (19		time	6.34	10.46	14.68	19.15	23.70	25.8	28.42	33.28	38.16	43.16	48.32		54.39	7 / 5			

reaction time	0.254	interval		4.12	4.22	4.47	4.55		4.72	4.86	4.88	5.00	5.16	6.07	PB		12.81	14.13	15.04
		velocity	7.10	8.50	8.29	7.83	7.69	7.75	7.42	7.20	7.17	7.00	6.78	6.59	7.35		8.20	7.43	6.98
H1 lead leg	L	strides		15	15	15	15		15	16	16	16	16	19.2	158.2				
Nugent, Leah (JAM) (1992)		time	6.24	10.32	14.60		23.54	25.7	28.30		38.14	43.20	48.64		55.01	1 / 6			
reaction time	0.193	interval		4.08	4.28		8.94		4.76		9.84	5.06	5.44	6.37					
		velocity	7.21	8.58	8.18		7.83	7.78	7.35		7.11	6.92	6.43	6.28	7.27				
H1 lead leg	R	strides		14	14				15			15	16	19	93				
Krafzik, Carolina (GER) (199		time	6.22	10.18	14.30		23.18	25.3	27.96	32.98	38.14	43.32	48.78		55.20	2 / 7			
reaction time	0.187	interval		3.96	4.12		8.88		4.78	5.02	5.16	5.18	5.46	6.42					15.80
		velocity	7.23	8.84	8.50		7.88	7.91	7.32	6.97	6.78	6.76	6.41	6.23	7.25				6.65
H1 lead leg	L	strides	22	15	15				16	17	17	17	19	21.7	159.7				
Sprunger, Leá (SUI) (1990)		time	6.20	10.30	14.56		23.56	25.6	28.26	33.04		43.28	48.90		55.27	8 / 8			
reaction time	0.186	interval		4.10	4.26		9.00		4.70	4.78		10.24	5.62	6.37					15.86
		velocity	7.26	8.54	8.22		7.78	7.81	7.45	7.32		6.84	6.23	6.28	7.24				6.62
H1 lead leg	R	strides		15	14				15	15	15		16		90				

2021 Bislett Games (Oslo, NOR) (TV Analysis)

FINAL date 01-Jul-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.32	10.44	14.56	18.80	23.20		27.64	32.32	37.16	42.12	47.32		53.33	4 / 1			
reaction time	0.199	interval		4.12	4.12	4.24	4.40		4.44	4.68	4.84	4.96	5.20	6.01	NR PB		12.48	13.52	15.00
		velocity	7.12	8.50	8.50	8.25	7.95		7.88	7.48	7.23	7.06	6.73	6.66	7.50		8.41	7.77	7.00
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19.2	176.2				
Ryzhykova, Anna (UKR) (19		time	6.48	10.56	14.68	19.00	23.44		28.12	32.84	37.72	42.68	48.04		54.15	5 / 2			
reaction time	0.185	interval		4.08	4.12	4.32	4.44		4.68	4.72	4.88	4.96	5.36	6.11	PB		12.52	13.84	15.20
		velocity	6.94	8.58	8.50	8.10	7.88		7.48	7.42	7.17	7.06	6.53	6.55	7.39		8.39	7.59	6.91
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	19.5	173.5				
Tkachuk, Viktoriya (UKR) (19		time	6.36	10.60	14.88		23.72		28.32	33.08	38.04	43.20	48.46		54.62	2 / 3			
reaction time	0.250	interval		4.24	4.28		8.84		4.60	4.76	4.96	5.16	5.26	6.16					15.38
		velocity	7.08	8.25	8.18		7.92		7.61	7.35	7.06	6.78	6.65	6.49	7.32				6.83
H1 lead leg	L	strides	22	15	15		15		15	15	16	16	16	20	165				
Iuel, Amalie (NOR) (1994)		time	6.44	10.58	14.84		23.78		28.50	33.34	38.36	43.50	48.84		55.04	7 / 4			
reaction time	0.150	interval		4.14	4.26		8.94		4.72	4.84	5.02	5.14	5.34	6.20					15.50
		velocity	6.99	8.45	8.22		7.83		7.42	7.23	6.97	6.81	6.55	6.45	7.27				6.77
H1 lead leg	L	strides	23	15	15		15		15	15	16	16	16	19.2	165.2				
Nugent, Leah (JAM) (1992)		time	6.44	10.68	15.00	19.72	24.44		29.16	33.92	38.88	44.12	49.28		55.37	3 / 5			
reaction time	0.233	interval		4.24	4.32	4.72	4.72		4.72	4.76	4.96	5.24	5.16	6.09			13.28	14.20	15.36
		velocity	6.99	8.25	8.10	7.42	7.42		7.42	7.35	7.06	6.68	6.78	6.57	7.22		7.91	7.39	6.84
H1 lead leg	R	strides	22	14	14		14		15	14	15	15	15	18.7	156.7				
Sprunger, Leá (SUI) (1990)		time	6.40	10.64	14.90	19.32	23.84		28.52	33.40	38.48	43.72	49.26		55.46	6 / 6			
reaction time	0.152	interval		4.24	4.26	4.42	4.52		4.68	4.88	5.08	5.24	5.54	6.20			12.92	14.08	15.86
		velocity	7.03	8.25	8.22	7.92	7.74		7.48	7.17	6.89	6.68	6.32	6.45	7.21		8.13	7.46	6.62
H1 lead leg	R	strides	22	15	14	14	15		15	15	15	16	16	19	176				
Watson, Sage (CAN) (1994)		time	6.44	10.60	14.88		23.76		28.52	33.48	38.56	44.04	49.84		56.52	8 / 7			
reaction time	0.204	interval		4.16	4.28		8.88		4.76	4.96	5.08	5.48	5.80	6.68					16.36
		velocity	6.99	8.41	8.18		7.88		7.35	7.06	6.89	6.39	6.03	5.99	7.08				6.42
H1 lead leg	R	strides	22	15	15		16		16	16	16	17	18	20.5	171.5				

2021 Japanese National Championships (Osaka, JPN)

FINAL date 27-Jun-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Yamamoto, Ami (JPN) (2002		time	6.82	11.29	15.85	20.49	25.24		30.11	35.09	40.22	45.63	51.15		57.30	5 / 1			
reaction time	0.193	interval		4.47	4.56	4.64	4.75		4.87	4.98	5.13	5.41	5.52	6.15			13.67	14.60	16.06
		velocity	6.60	7.83	7.68	7.54	7.37		7.19	7.03	6.82	6.47	6.34	6.50	6.98		7.68	7.19	6.54
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21.5	196.5				
Utsunomiya, Eri (JPN) (1993		time	6.57	10.84	15.23	19.77	24.37		29.28	34.38	39.66	45.20	50.97		57.83	4 / 2			
reaction time	0.194	interval		4.27	4.39	4.54	4.60		4.91	5.10	5.28	5.54	5.77	6.86			13.20	14.61	16.59
		velocity	6.85	8.20	7.97	7.71	7.61		7.13	6.86	6.63	6.32	6.07	5.83	6.92		7.95	7.19	6.33
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	22	188				
Ibrahim, Ayesha (JPN) (1998		time	6.71	10.98	15.42	19.97	24.71		29.65	34.72	40.02	45.58	51.43		58.16	9 / 3			
reaction time	0.270	interval		4.27	4.44	4.55	4.74		4.94	5.07	5.30	5.56	5.85	6.73			13.26	14.75	16.71
		velocity	6.71	8.20	7.88	7.69	7.38		7.09	6.90	6.60	6.29	5.98	5.94	6.88		7.92	7.12	6.28
H1 lead leg	R	strides	22	14	15	15	15		15	15	15	16	17	21	180				
Ito, Akiko (JPN) (1995)		time	6.59	10.96	15.57	20.35	25.31		30.31	35.44	40.76	46.33	52.07		58.76	7 / 4			
reaction time	0.166	interval		4.37	4.61	4.78	4.96		5.00	5.13	5.32	5.57	5.74	6.69			13.76	15.09	16.63
		velocity	6.83	8.01	7.59	7.32	7.06		7.00	6.82	6.58	6.28	6.10	5.98	6.81		7.63	6.96	6.31
H1 lead leg	L	strides	23	15	15	16	16		16	16	17	17	17	21.2	189.2				

Yokota, Karen (JPN) (1999)		time	6.66	11.16	15.72	20.47	25.33	30.33	35.47	40.79	46.30	52.09		58.79	6 / 5			
reaction time	0.182	interval		4.50	4.56	4.75	4.86	5.00	5.14	5.32	5.51	5.79	6.70			13.81	15.00	16.62
		velocity	6.76	7.78	7.68	7.37	7.20	7.00	6.81	6.58	6.35	6.04	5.97	6.80		7.60	7.00	6.32
H1 lead leg	L	strides	23	16	16	16	16	17	17	17	17	17	21.7	193.7				
Aoki, Honoka (JPN) (2001)		time	6.76	11.21	15.75	20.44	25.24	30.23	35.49	40.87	46.51	52.34		58.82	2 / 6			
reaction time	0.236	interval		4.45	4.54	4.69	4.80	4.99	5.26	5.38	5.64	5.83	6.48			13.68	15.05	16.85
		velocity	6.66	7.87	7.71	7.46	7.29	7.01	6.65	6.51	6.21	6.00	6.17	6.80		7.68	6.98	6.23
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	18	18	21.7	196.7				
Tsuha, Aiki (JPN) (2000)		time	6.86	11.38	16.00	20.72	25.64	30.63	35.74	41.32	46.96	52.72		59.41	3 / 7			
reaction time	0.324	interval		4.52	4.62	4.72	4.92	4.99	5.11	5.58	5.64	5.76	6.69			13.86	15.02	16.98
		velocity	6.56	7.74	7.58	7.42	7.11	7.01	6.85	6.27	6.21	6.08	5.98	6.73		7.58	6.99	6.18
H1 lead leg	L	strides	25	17	17	17	17	17	17	19	19	19		184				
Murakami, Natsumi (JPN) (1!		time	6.84	11.24	15.83	20.64	25.49	30.58	35.84	41.34	47.24	53.37		60.42	8 / 8			
reaction time	0.219	interval		4.40	4.59	4.81	4.85	5.09	5.26	5.50	5.90	6.13	7.05			13.80	15.20	17.53
		velocity	6.58	7.95	7.63	7.28	7.22	6.88	6.65	6.36	5.93	5.71	5.67	6.62		7.61	6.91	5.99
H1 lead leg	R	strides	23	15	15	16	16	17	17	17	18	18		172				

Heat 1

date 26-Jun-21

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Yamamoto, Ami (JPN) (2002)		time	6.86	11.34	15.83	20.39	25.06		30.00	35.14	40.32	45.60	51.00		57.04	6 / 1			
reaction time	0.232	interval		4.48	4.49	4.56	4.67		4.94	5.14	5.18	5.28	5.40	6.04	PB		13.53	14.75	15.86
		velocity	6.56	7.81	7.80	7.68	7.49		7.09	6.81	6.76	6.63	6.48	6.62	7.01		7.76	7.12	6.62
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	20.7	193.7				

2021 Japanese U20 National Championships (Osaka, JPN)

FINAL

date 27-Jun-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kudo, Mei (JPN) (2002)		time	6.99	11.59	16.43	21.39	26.46		31.53	36.64	41.86	47.43	53.05		58.97	6 / 1			
reaction time	0.186	interval		4.60	4.84	4.96	5.07		5.07	5.11	5.22	5.57	5.62	5.92	PB		14.40	15.25	16.41
		velocity	6.44	7.61	7.23	7.06	6.90		6.90	6.85	6.70	6.28	6.23	6.76	6.78		7.29	6.89	6.40
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	18	21.2	200.2				
Taneru, Asuruhan Marino (J		time	6.71	11.21	15.87	20.77	25.79		30.95	36.32	41.79	47.31	52.94		59.07	7 / 2			
reaction time	0.152	interval		4.50	4.66	4.90	5.02		5.16	5.37	5.47	5.52	5.63	6.13	PB		14.06	15.55	16.62
		velocity	6.71	7.78	7.51	7.14	6.97		6.78	6.52	6.40	6.34	6.22	6.53	6.77		7.47	6.75	6.32
H1 lead leg	L	strides	24	16	16	17	17		17	18	18	18	19	22	202				
Okawa, Sumika (JPN) (2003)		time	6.86	11.31	15.93	20.74	25.63		30.68	35.95	41.31	46.81	52.64		59.22	2 / 3			
reaction time	0.190	interval		4.45	4.62	4.81	4.89		5.05	5.27	5.36	5.50	5.83	6.58			13.88	15.21	16.69
		velocity	6.56	7.87	7.58	7.28	7.16		6.93	6.64	6.53	6.36	6.00	6.08	6.75		7.56	6.90	6.29
H1 lead leg	R	strides	23	15	15	16	16		16	16	17	17	18	22.2	191.2				
Naito, Kano (JPN) (2004)		time	6.77	11.29	16.02	20.89	25.94		31.08	36.60	42.21	47.88	53.65		60.30	5 / 4			
reaction time	0.231	interval		4.52	4.73	4.87	5.05		5.14	5.52	5.61	5.67	5.77	6.65	PB		14.12	15.71	17.05
		velocity	6.65	7.74	7.40	7.19	6.93		6.81	6.34	6.24	6.17	6.07	6.02	6.63		7.44	6.68	6.16
H1 lead leg	R	strides	25	17	17	17	17		17	19	19	19	19	22	208				
Hamachiyo, Rinka (JPN) (20(		time	7.06	11.78	16.52	21.40	26.46		31.61	37.09	42.69	48.62	54.60		60.75	4 / 5			
reaction time	0.191	interval		4.72	4.74	4.88	5.06		5.15	5.48	5.60	5.93	5.98	6.15	PB		14.34	15.69	17.51
		velocity	6.37	7.42	7.38	7.17	6.92		6.80	6.39	6.25	5.90	5.85	6.50	6.58		7.32	6.69	6.00
H1 lead leg	L	strides	25	17	17	17	17		17	18	18	19	19		184				
Kudo, Mitsuki (JPN) (2004)		time	7.07	11.61	16.22	20.94	25.99		31.33	36.67	42.23	47.91	54.05		61.02	9 / 6			
reaction time	0.206	interval		4.54	4.61	4.72	5.05		5.34	5.34	5.56	5.68	6.14	6.97			13.87	15.73	17.38
		velocity	6.36	7.71	7.59	7.42	6.93		6.55	6.55	6.29	6.16	5.70	5.74	6.56		7.57	6.68	6.04
H1 lead leg	R	strides	26	17	17	17	19		19	19	19	19	21		193				
Kusaka, Ayana (JPN) (2003)		time	6.81	11.28	15.90	20.59	25.51		30.76	36.40	42.18	48.11	54.29		61.20	3 / 7			
reaction time	0.194	interval		4.47	4.62	4.69	4.92		5.25	5.64	5.78	5.93	6.18	6.91			13.78	15.81	17.89
		velocity	6.61	7.83	7.58	7.46	7.11		6.67	6.21	6.06	5.90	5.66	5.79	6.54		7.62	6.64	5.87
H1 lead leg	R	strides	24	17	17	17	17		17	19	19	19	19		185				
Higuchi, Ayane (JPN) (2004)		time	7.02	11.70	16.50	21.42	26.54		31.85	37.19	42.83	48.72	54.79		61.44	8 / 8			
reaction time	0.186	interval		4.68	4.80	4.92	5.12		5.31	5.34	5.64	5.89	6.07	6.65			14.40	15.77	17.60
		velocity	6.41	7.48	7.29	7.11	6.84		6.59	6.55	6.21	5.94	5.77	6.02	6.51		7.29	6.66	5.97
H1 lead leg	L	strides	23	16	16	16	16		17	17	18	19	19		177				

2021 Chinese National Championships (Chongqing, CHN)

FINAL

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CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.66	10.96	15.42	19.98	24.62		29.44	34.50	39.62	44.88	50.26		56.27	5 / 1			
reaction time	0.296	interval		4.30	4.46	4.56	4.64		4.82	5.06	5.12	5.26	5.38	6.01	PB		13.32	14.52	15.76
		velocity	6.76	8.14	7.85	7.68	7.54		7.26	6.92	6.84	6.65	6.51	6.66	7.11		7.88	7.23	6.66
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	18	21.2	195.2				

Zou Yifan (CHN) (2000)		time	6.74	11.23	15.81	20.50	25.32	30.30	35.42	40.69	46.04	51.68		57.97	4 / 2			
reaction time	0.257	interval		4.49	4.58	4.69	4.82	4.98	5.12	5.27	5.35	5.64	6.29			13.76	14.92	16.26
		velocity	6.68	7.80	7.64	7.46	7.26	7.03	6.84	6.64	6.54	6.21	6.36	6.90		7.63	7.04	6.46
H1 lead leg	L	strides	24	17	17	17	17	17	17	17	17	18	21	199				
Huang Yan (CHN) (1996)		time	6.68	11.10	15.76	20.44	25.27	30.18	35.26	40.44	46.10	51.92		58.34	8 / 3			
reaction time	0.320	interval		4.42	4.66	4.68	4.83	4.91	5.08	5.18	5.66	5.82	6.42			13.76	14.82	16.66
		velocity	6.74	7.92	7.51	7.48	7.25	7.13	6.89	6.76	6.18	6.01	6.23	6.86		7.63	7.09	6.30
H1 lead leg	L	strides	24	17	17	17	17	17	17	17	19	19	22	203				
Ou Ying (CHN) (2001)		time	6.98	11.58	16.28	21.00	25.90	31.06	36.26	41.68	47.46	53.42		59.81	7 / 4			
reaction time	0.192	interval		4.60	4.70	4.72	4.90	5.16	5.20	5.42	5.78	5.96	6.39			14.02	15.26	17.16
		velocity	6.45	7.61	7.45	7.42	7.14	6.78	6.73	6.46	6.06	5.87	6.26	6.69		7.49	6.88	6.12
H1 lead leg	L	strides	24	17	17	17	17	17	17	18	19	19	22	204				
Ding Yirui (CHN) (2002)		time	6.86	11.36	16.11	20.95	26.07	31.50	36.97	42.42	48.05	53.77		59.88	2 / 5			
reaction time	0.238	interval		4.50	4.75	4.84	5.12	5.43	5.47	5.45	5.63	5.72	6.11			14.09	16.02	16.80
		velocity	6.56	7.78	7.37	7.23	6.84	6.45	6.40	6.42	6.22	6.12	6.55	6.68		7.45	6.55	6.25
H1 lead leg	L	strides	22	15	15	15	16	16	16	16	17	17	19.5	184.5				
Chen Liying (CHN) (1994)		time	6.86	11.40	16.06	20.84	25.74	30.88	36.24	41.66	47.36	53.36		59.94	6 / 6			
reaction time	0.202	interval		4.54	4.66	4.78	4.90	5.14	5.36	5.42	5.70	6.00	6.58			13.98	15.40	17.12
		velocity	6.56	7.71	7.51	7.32	7.14	6.81	6.53	6.46	6.14	5.83	6.08	6.67		7.51	6.82	6.13
H1 lead leg	R	strides	24	16	16	16	16	17	17	17	18	19	21.7	197.7				
Lu Zhangwei (CHN) (2001)		time	6.82	11.21	15.73	20.40	25.16	30.41	fell					74.02	3 / 7			
reaction time	0.259	interval		4.39	4.52	4.67	4.76	5.25								13.58		
		velocity	6.60	7.97	7.74	7.49	7.35	6.67						5.40		7.73		
H1 lead leg	R	strides	24	16	16	16	16	17						105				

Heat 4

date 26-Jun-21 — *CAA Hurdle Development (2021)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Lu Zhangwei (CHN) (2001)		time	6.83	11.26	15.80	20.61	25.49		30.55	35.75	41.07	46.67	52.47		59.03	5 / 1			
reaction time	0.261	interval		4.43	4.54	4.81	4.88		5.06	5.20	5.32	5.60	5.80	6.56			13.78	15.14	16.72
		velocity	6.59	7.90	7.71	7.28	7.17		6.92	6.73	6.58	6.25	6.03	6.10	6.78		7.62	6.94	6.28
H1 lead leg	L	strides	24	16	16	17	17		17	17	17	18	18	21	198				
Chen Liying (CHN) (1994)		time	6.79	11.33	15.99	20.74	25.59		30.64	35.88	41.26	46.81	52.70		59.20	7 / 2			
reaction time	0.208	interval		4.54	4.66	4.75	4.85		5.05	5.24	5.38	5.55	5.89	6.50	PB		13.95	15.14	16.82
		velocity	6.63	7.71	7.51	7.37	7.22		6.93	6.68	6.51	6.31	5.94	6.15	6.76		7.53	6.94	6.24
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	18	19	21.7	197.7				
Ou Ying (CHN) (2001)		time	6.98	11.46	16.07	20.71	25.50		30.57	35.84	41.32	46.89	52.56		59.24	6 / 3			
reaction time	0.240	interval		4.48	4.61	4.64	4.79		5.07	5.27	5.48	5.57	5.67	6.68			13.73	15.13	16.72
		velocity	6.45	7.81	7.59	7.54	7.31		6.90	6.64	6.39	6.28	6.17	5.99	6.75		7.65	6.94	6.28
H1 lead leg	L	strides	24	17	17	17	17		17	17	18	18	18	22	202				
Ding Yirui (CHN) (2002)		time	6.95	11.50	16.26	21.10	26.22		31.40	36.81	42.34	47.98	53.61		59.78	8 / 4			
reaction time	0.331	interval		4.55	4.76	4.84	5.12		5.18	5.41	5.53	5.64	5.63	6.17			14.15	15.71	16.80
		velocity	6.47	7.69	7.35	7.23	6.84		6.76	6.47	6.33	6.21	6.22	6.48	6.69		7.42	6.68	6.25
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	17	19.5	186.5				
Lan Tianlu (CHN) (1999)		time	6.91	11.46	16.20	21.09	25.99		31.13	36.43	41.86	47.36	53.17		59.82	3 / 5			
reaction time	0.223	interval		4.55	4.74	4.89	4.90		5.14	5.30	5.43	5.50	5.81	6.65			14.18	15.34	16.74
		velocity	6.51	7.69	7.38	7.16	7.14		6.81	6.60	6.45	6.36	6.02	6.02	6.69		7.40	6.84	6.27
H1 lead leg	L	strides	22	16	16	16	16		17	17	17	17	18	21.5	193.5				
Fei Jiayu (CHN) (2000)		time	7.12	11.86	16.75	21.77	26.79		32.10	37.60	43.23	48.90	54.65		61.26	2 / 6			
reaction time	0.239	interval		4.74	4.89	5.02	5.02		5.31	5.50	5.63	5.67	5.75	6.61			14.65	15.83	17.05
		velocity	6.32	7.38	7.16	6.97	6.97		6.59	6.36	6.22	6.17	6.09	6.05	6.53		7.17	6.63	6.16
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	17	17	20.5	193.5				
Liu Xin (CHN) (1992)		time	7.11	11.71	16.52	21.45	26.51		31.91	37.49	43.21	49.20	55.39		62.59	4 / 7			
reaction time	0.255	interval		4.60	4.81	4.93	5.06		5.40	5.58	5.72	5.99	6.19	7.20			14.34	16.04	17.90
		velocity	6.33	7.61	7.28	7.10	6.92		6.48	6.27	6.12	5.84	5.65	5.56	6.39		7.32	6.55	5.87
H1 lead leg	L	strides	25	17	17	17	17		18	19	19	20	20	23.5	212.5				

Heat 3

date 26-Jun-21 — *CAA Hurdle Development (2021)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wu Xueting (CHN) (1995)		time	7.10	11.67	16.30	21.06	26.01		31.20	36.58	42.05	47.61	53.25		59.63	5 / 1			
reaction time	0.248	interval		4.57	4.63	4.76	4.95		5.19	5.38	5.47	5.56	5.64	6.38			13.96	15.52	16.67
		velocity	6.34	7.66	7.56	7.35	7.07		6.74	6.51	6.40	6.29	6.21	6.27	6.71		7.52	6.77	6.30
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	17	20.5	187.5				
Tao Xue (CHN) (1999)		time	6.94	11.26	15.75	20.35	25.11		30.23	35.70	41.49	47.23	53.18		59.81	3 / 2			
reaction time	0.252	interval		4.32	4.49	4.60	4.76		5.12	5.47	5.79	5.74	5.95	6.63			13.41	15.35	17.48
		velocity	6.48	8.10	7.80	7.61	7.35		6.84	6.40	6.04	6.10	5.88	6.03	6.69		7.83	6.84	6.01
H1 lead leg	L	strides	23	15	15	15	15		16	18	18	18	18	20.2	191.2				

Qiu Zhangyan (CHN) (1998)		time	7.14	11.84	16.73	21.65	26.65	31.70	36.90	42.19	47.78	53.53		59.99	8 / 3			
reaction time	0.364	interval		4.70	4.89	4.92	5.00	5.05	5.20	5.29	5.59	5.75	6.46	PB		14.51	15.25	16.63
		velocity	6.30	7.45	7.16	7.11	7.00	6.93	6.73	6.62	6.26	6.09	6.19	6.67		7.24	6.89	6.31
H1 lead leg	L	strides	24	17	18	17	17	17	17	17	18	18	21.7	201.7				
Wang Hongyan (CHN) (1998		time	6.97	11.64	16.39	21.21	26.26	31.55	36.97	42.49	48.20	53.89		60.16	6 / 4			
reaction time	0.204	interval		4.67	4.75	4.82	5.05	5.29	5.42	5.52	5.71	5.69	6.27			14.24	15.76	16.92
		velocity	6.46	7.49	7.37	7.26	6.93	6.62	6.46	6.34	6.13	6.15	6.38	6.65		7.37	6.66	6.21
H1 lead leg	L	strides	25	16	17	17	17	18	18	18	19	19	22.7	206.7				
Fu Yijia (CHN) (2001)		time	7.06	11.71	16.48	21.39	26.49	31.69	36.95	42.20	47.85	54.01		60.54	7 / 5			
reaction time	0.243	interval		4.65	4.77	4.91	5.10	5.20	5.26	5.25	5.65	6.16	6.53			14.33	15.56	17.06
		velocity	6.37	7.53	7.34	7.13	6.86	6.73	6.65	6.67	6.19	5.68	6.13	6.61		7.33	6.75	6.15
H1 lead leg	R	strides	24	16	16	17	17	17	17	17	18	19	21.5	199.5				
Ling Jiayu (CHN) (1997)		time	6.96	11.53	16.26	21.07	26.02	31.16	36.70	42.57	48.60	54.70		61.28	2 / 6			
reaction time	0.186	interval		4.57	4.73	4.81	4.95	5.14	5.54	5.87	6.03	6.10	6.58			14.11	15.63	18.00
		velocity	6.47	7.66	7.40	7.28	7.07	6.81	6.32	5.96	5.80	5.74	6.08	6.53		7.44	6.72	5.83
H1 lead leg	R	strides	24	17	17	17	17	17	19	19	19	19	21	206				
Liu Hongjuan (CHN) (1996)		time	6.94	11.56	16.26	21.24	26.32	31.70	37.32	43.04	48.97	55.07		62.11	4 / 7			
reaction time	0.250	interval		4.62	4.70	4.98	5.08	5.38	5.62	5.72	5.93	6.10	7.04			14.30	16.08	17.75
		velocity	6.48	7.58	7.45	7.03	6.89	6.51	6.23	6.12	5.90	5.74	5.68	6.44		7.34	6.53	5.92
H1 lead leg	L	strides	23	16	16	16	16	17	18	18	19	19	22.2	200.2				

Heat 2

date 26-Jun-21

CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.83	11.22	15.77	20.45	25.20		30.16	35.35	40.64	46.14	51.77		58.07	5 / 1			
reaction time	0.321	interval		4.39	4.55	4.68	4.75		4.96	5.19	5.29	5.50	5.63	6.30			13.62	14.90	16.42
		velocity	6.59	7.97	7.69	7.48	7.37		7.06	6.74	6.62	6.36	6.22	6.35	6.89		7.71	7.05	6.39
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				
Jiang Liyunzhe (CHN) (2002)		time	6.77	11.36	16.08	20.99	26.01		31.11	36.22	41.57	47.23	53.07		59.95	4 / 2			
reaction time	0.286	interval		4.59	4.72	4.91	5.02		5.10	5.11	5.35	5.66	5.84	6.88			14.22	15.23	16.85
		velocity	6.65	7.63	7.42	7.13	6.97		6.86	6.85	6.54	6.18	5.99	5.81	6.67		7.38	6.89	6.23
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	22	197				
Wang Jiaqi (CHN) (2000)		time	7.02	11.47	16.11	20.81	25.77		30.97	36.31	41.83	47.64	53.51		60.07	7 / 3			
reaction time	0.238	interval		4.45	4.64	4.70	4.96		5.20	5.34	5.52	5.81	5.87	6.56			13.79	15.50	17.20
		velocity	6.41	7.87	7.54	7.45	7.06		6.73	6.55	6.34	6.02	5.96	6.10	6.66		7.61	6.77	6.10
H1 lead leg	L	strides	24	17	17	17	17		17	17	18	18	18	22	202				
Zhou Lin (CHN) (1998)		time	6.89	11.48	16.17	20.94	25.85		30.91	36.34	41.74	47.32	53.14		60.26	8 / 4			
reaction time	0.224	interval		4.59	4.69	4.77	4.91		5.06	5.43	5.40	5.58	5.82	7.12			14.05	15.40	16.80
		velocity	6.53	7.63	7.46	7.34	7.13		6.92	6.45	6.48	6.27	6.01	5.62	6.64		7.47	6.82	6.25
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	18	22	194				
Xiao Xia (CHN) (1991)		time	6.76	11.38	16.25	21.30	26.41		31.76	37.17	42.71	48.35	53.97		60.42	3 / 5			
reaction time	0.296	interval		4.62	4.87	5.05	5.11		5.35	5.41	5.54	5.64	5.62	6.45			14.54	15.87	16.80
		velocity	6.66	7.58	7.19	6.93	6.85		6.54	6.47	6.32	6.21	6.23	6.20	6.62		7.22	6.62	6.25
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	20.5	192.5				
Hu Lihong (CHN) (1999)		time	6.88	11.44	16.21	21.03	26.01		31.12	36.42	41.90	47.64	53.69		60.99	6 / 6			
reaction time	0.167	interval		4.56	4.77	4.82	4.98		5.11	5.30	5.48	5.74	6.05	7.30			14.15	15.39	17.27
		velocity	6.54	7.68	7.34	7.26	7.03		6.85	6.60	6.39	6.10	5.79	5.48	6.56		7.42	6.82	6.08
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	21	193				
Chen Zhuo (CHN) (2001)		time	6.91	11.46	16.18	21.12	26.29		31.68	37.34	43.07	49.08	55.30		62.52	2 / 7			
reaction time	0.208	interval		4.55	4.72	4.94	5.17		5.39	5.66	5.73	6.01	6.22	7.22			14.21	16.22	17.96
		velocity	6.51	7.69	7.42	7.09	6.77		6.49	6.18	6.11	5.82	5.63	5.54	6.40		7.39	6.47	5.85
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	22	197				

Heat 1

date 26-Jun-21

CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zou Yifan (CHN) (2000)		time	6.94	11.44	16.10	20.80	25.62		30.65	35.75	41.02	46.58	52.27		58.74	3 / 1			
reaction time	0.348	interval		4.50	4.66	4.70	4.82		5.03	5.10	5.27	5.56	5.69	6.47			13.86	14.95	16.52
		velocity	6.48	7.78	7.51	7.45	7.26		6.96	6.86	6.64	6.29	6.15	6.18	6.81		7.58	7.02	6.36
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	18	21	200				
Huang Yan (CHN) (1996)		time	6.81	11.37	16.10	20.83	25.74		30.73	35.79	41.14	46.79	52.63		59.27	5 / 2			
reaction time	0.318	interval		4.56	4.73	4.73	4.91		4.99	5.06	5.35	5.65	5.84	6.64			14.02	14.96	16.84
		velocity	6.61	7.68	7.40	7.40	7.13		7.01	6.92	6.54	6.19	5.99	6.02	6.75		7.49	7.02	6.24
H1 lead leg	L	strides	24	17	17	17	17		17	17	18	19	19	22	204				
Yang Qi (CHN) (2000)		time	6.81	11.45	16.19	21.05	26.01		31.33	36.68	42.00	47.76	53.53		59.85	6 / 3			
reaction time	0.194	interval		4.64	4.74	4.86	4.96		5.32	5.35	5.32	5.76	5.77	6.32			14.24	15.63	16.85
		velocity	6.61	7.54	7.38	7.20	7.06		6.58	6.54	6.58	6.08	6.07	6.33	6.68		7.37	6.72	6.23
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				

Kong Yingying (CHN) (2003)		time	6.93	11.55	16.26	21.08	26.12	31.30	36.55	42.04	47.75	53.48		60.10	7 / 4			
reaction time	0.272	interval		4.62	4.71	4.82	5.04	5.18	5.25	5.49	5.71	5.73	6.62			14.15	15.47	16.93
		velocity	6.49	7.58	7.43	7.26	6.94	6.76	6.67	6.38	6.13	6.11	6.04	6.66		7.42	6.79	6.20
H1 lead leg	R	strides	23	16	16	16	17	17	17	18	18	18	22	198				
Wu Fangfang (CHN) (1997)		time	7.06	11.79	16.62	21.56	26.63	31.96	37.42	42.91	48.48	54.15		60.29	4 / 5			
reaction time	0.308	interval		4.73	4.83	4.94	5.07	5.33	5.46	5.49	5.57	5.67	6.14			14.50	15.86	16.73
		velocity	6.37	7.40	7.25	7.09	6.90	6.57	6.41	6.38	6.28	6.17	6.51	6.63		7.24	6.62	6.28
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	17	17	21	194				
Liu Wei (CHN) (2001)		time	7.21	12.00	16.93	21.97	27.08	32.35	37.59	43.06	48.53	54.15		60.62	2 / 6			
reaction time	0.343	interval		4.79	4.93	5.04	5.11	5.27	5.24	5.47	5.47	5.62	6.47			14.76	15.62	16.56
		velocity	6.24	7.31	7.10	6.94	6.85	6.64	6.68	6.40	6.40	6.23	6.18	6.60		7.11	6.72	6.34
H1 lead leg	L	strides	23	17	17	17	17	17	17	17	18	18	21.2	199.2				
Zhuang Yilan (CHN) (2000)		time	6.83	11.40	16.21	21.04	26.14	31.43	36.99	42.90	49.16	55.66		63.20	8 / 7			
reaction time	0.293	interval		4.57	4.81	4.83	5.10	5.29	5.56	5.91	6.26	6.50	7.54			14.21	15.95	18.67
		velocity	6.59	7.66	7.28	7.25	6.86	6.62	6.29	5.92	5.59	5.38	5.31	6.33		7.39	6.58	5.62
H1 lead leg	L	strides	24	17	17	17	17	17	17	19	19	19	23	206				
Ma Jie (CHN) (1998)		time	6.96	11.65	16.45	21.52	26.79	32.45	38.65	45.25				66.91	1 / 8			
reaction time	0.262	interval		4.69	4.80	5.07	5.27	5.66	6.20	6.60						14.56	17.13	
		velocity	6.47	7.46	7.29	6.90	6.64	6.18	5.65	5.30				5.98		7.21	6.13	
H1 lead leg	L	strides	23	16	16	16	16	17	19	19				142				

2020 USA Olympic Trials (Eugene, OR)

Henson (2021) - Athlete First: 2021 year end hurdle report (TV Analysis)

FINAL

date 27-Jun-21

Athlete Tracking (2021) - Women's 400mH - Unofficial Split Times

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.11	10.14	14.36	18.60	23.04	24.97	27.59	32.24	36.91	41.64	46.46		51.90	6 / 1	*Athlete Tracking (2021)*		
reaction time	0.194	interval		4.03	4.22	4.24	4.44		4.55	4.65	4.67	4.73	4.82	5.44	**WR**		12.49	13.64	14.22
		velocity	7.36	8.68	8.29	8.25	7.88	8.01	7.69	7.53	7.49	7.40	7.26	7.35	7.71		8.41	7.70	7.38
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	18.2	171.2				
Muhammad, Dalilah (USA) (		time	6.08	10.03	14.21	18.52	22.95	24.91	27.48	32.04	36.70	41.58	46.53		52.42	7 / 2	*Athlete Tracking (2021)*		
reaction time	0.167	interval		3.95	4.18	4.31	4.43		4.53	4.56	4.66	4.88	4.95	5.89			12.44	13.52	14.49
		velocity	7.40	8.86	8.37	8.12	7.90	8.03	7.73	7.68	7.51	7.17	7.07	6.79	7.63		8.44	7.77	7.25
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Cockrell, Anna (USA) (1997)		time	6.32	10.46	14.69	19.10	23.56	25.53	28.14	32.81	37.60	42.51	47.61		53.70	9 / 3	*Athlete Tracking (2021)*		
reaction time	0.201	interval		4.14	4.23	4.41	4.46		4.58	4.67	4.79	4.91	5.10	6.09	**PB**		12.78	13.71	14.80
		velocity	7.12	8.45	8.27	7.94	7.85	7.83	7.64	7.49	7.31	7.13	6.86	6.57	7.45		8.22	7.66	7.09
H1 lead leg	L	strides		15	15	15	15		15	15	15	16	16		137				
Little, Shamier (USA) (1995)		time	6.20	10.22	14.38	18.59	22.96	24.93	27.52	32.27	36.99	42.50	47.69		53.85	5 / 4	*Athlete Tracking (2021)*		
reaction time	0.213	interval		4.02	4.16	4.21	4.37		4.56	4.75	4.72	5.51	5.19	6.16			12.39	13.68	15.42
		velocity	7.26	8.71	8.41	8.31	8.01	8.02	7.68	7.37	7.42	6.35	6.74	6.49	7.43		8.47	7.68	6.81
H1 lead leg	R	strides		15	15	15	15		16	16	15	18	17		142				
Hailey, Nnenya (USA) (1994)		time	6.24	10.24	14.44	18.82	23.29		27.89	32.63	37.50	42.61			54.79	8 / ~~5~~	*Henson (2021)*		
reaction time	0.251	interval		4.00	4.20	4.38	4.47		4.60	4.74	4.87	5.11			**DQ**		13.05	9.34	
		velocity	7.21	8.75	8.33	7.99	7.83		7.61	7.38	7.19	6.85			7.30		8.05	11.24	
H1 lead leg	L	strides		16	16	16	16		17	17	17	17			132				
Tate, Cassandra (USA) (1990		time	6.30	10.38	14.63	19.05	23.69		28.39	33.40		44.11			56.51	4 / ~~6~~ 5	*Henson (2021)*		
reaction time	0.194	interval		4.08	4.25	4.42	4.64		4.70	5.01		10.71					13.31	9.71	
		velocity	7.14	8.58	8.24	7.92	7.54		7.45	6.99		6.54			7.08		7.89	10.81	
H1 lead leg	R	strides		14	14	14	15			16					73				
Bookman, Deonca (USA) (19		time	6.54	10.64	14.84	19.18	23.79		28.49	33.46		44.17			56.90	2 / ~~7~~ 6	*Henson (2021)*		
reaction time	0.349	interval		4.10	4.20	4.34	4.61		4.70	4.97		10.71					13.15	9.67	
		velocity	6.88	8.54	8.33	8.06	7.59		7.45	7.04		6.54			7.03		7.98	10.86	
H1 lead leg	R	strides		16	16	16	17			18					83				
Spencer, Ashley (USA) (1993		time	6.37	10.61	14.88	19.38	24.25		28.99	33.93		44.71			60.19	3 / ~~8~~ 7	*Henson (2021)*		
reaction time	0.222	interval		4.24	4.27	4.50	4.87		4.74	4.94		10.78					13.64	9.68	
		velocity	7.06	8.25	8.20	7.78	7.19		7.38	7.09		6.49			6.65		7.70	10.85	
H1 lead leg	L	strides		15	15	15	15			15					75				

Semi-Final 2 (TV A

date 26-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.37	10.54	14.86	19.25	23.75		28.43	33.23	38.10	43.01	48.01		53.71	5 / 1			
reaction time	0.222	interval		4.17	4.32	4.39	4.50		4.68	4.80	4.87	4.91	5.00	5.70			12.88	13.98	14.78
		velocity	7.06	8.39	8.10	7.97	7.78		7.48	7.29	7.19	7.13	7.00	7.02	7.45		8.15	7.51	7.10
H1 lead leg	R	strides		15	15	15	15		16	16	16	16	16	19	159				
Muhammad, Dalilah (USA) (		time	6.07	10.11	14.43	18.95	23.59		28.33	33.10	37.94	42.95	48.01		53.86	6 / 2			
reaction time	0.174	interval		4.04	4.32	4.52	4.64		4.74	4.77	4.84	5.01	5.06	5.85			12.88	14.15	14.91
		velocity	7.41	8.66	8.10	7.74	7.54		7.38	7.34	7.23	6.99	6.92	6.84	7.43		8.15	7.42	7.04
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	18.7	177.7				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Cockrell, Anna (USA) (1997)		time	6.30	10.51	14.91	19.45	24.15	29.06	33.96	38.97	43.94	49.01		55.10	8 / 3			
reaction time	0.177	interval		4.21	4.40	4.54	4.70	4.91	4.90	5.01	4.97	5.07	6.09			13.15	14.51	15.05
		velocity	7.14	8.31	7.95	7.71	7.45	7.13	7.14	6.99	7.04	6.90	6.57	7.26		7.98	7.24	6.98
H1 lead leg	L	strides		15	15	15	15	16	15	16	16	16		139				
Spencer, Ashley (USA) (1993		time	6.40	10.67	15.11	19.72	24.42	29.18	34.03	38.87	43.84	49.01		55.25	7 / 4			
reaction time	0.208	interval		4.27	4.44	4.61	4.70	4.76	4.85	4.84	4.97	5.17	6.24			13.32	14.31	14.98
		velocity	7.03	8.20	7.88	7.59	7.45	7.35	7.22	7.23	7.04	6.77	6.41	7.24		7.88	7.34	7.01
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15		142				
Meisberger, Shannon (USA)		time	6.44	10.67	15.08	19.68	24.46	29.36	34.50		45.21			57.22	9 / 5			
reaction time	0.260	interval		4.23	4.41	4.60	4.78	4.90	5.14		10.71					13.24	14.82	
		velocity	6.99	8.27	7.94	7.61	7.32	7.14	6.81		6.54			6.99		7.93	7.09	
H1 lead leg	L	strides		15	15	15	16	16	17	17				111				
Russell, Masai (USA) (2000)		time	6.44	10.77	15.15	19.89	24.89	30.03		40.44	45.81			58.00	3 / 6			
reaction time	0.332	interval		4.33	4.38	4.74	5.00	5.14		10.41	5.37					13.45		
		velocity	6.99	8.08	7.99	7.38	7.00	6.81		6.72	6.52			6.90		7.81		
H1 lead leg	R	strides		16	16	16	16				17			81				
Humphrey, Brittley (USA) (1		time	6.44	10.67	15.15	19.89	24.79	29.93		40.67	46.38			58.95	2 / 7			
reaction time	0.190	interval		4.23	4.48	4.74	4.90	5.14		10.74	5.71					13.45		
		velocity	6.99	8.27	7.81	7.38	7.14	6.81		6.52	6.13			6.79		7.81		
H1 lead leg	L	strides		15	15	15	15				17			77				
Barber, Kaila (USA) (1993)		time	6.30	10.54	15.01	19.58	24.45	29.63	34.93	40.54	46.35			60.14	4 / 8			
reaction time	0.174	interval		4.24	4.47	4.57	4.87	5.18	5.30	5.61	5.81					13.28	15.35	
		velocity	7.14	8.25	7.83	7.66	7.19	6.76	6.60	6.24	6.02			6.65		7.91	6.84	
H1 lead leg	R	strides		16	16	16	16		17		18			99				

Semi-Final 1 (TV A

date 26-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.14	10.21	14.34	18.58	22.99		27.59	32.33	37.07	42.07	47.04		53.03	5 / 1			
reaction time	0.227	interval		4.07	4.13	4.24	4.41		4.60	4.74	4.74	5.00	4.97	5.99			12.44	13.75	14.71
		velocity	7.33	8.60	8.47	8.25	7.94		7.61	7.38	7.38	7.00	7.04	6.68	7.54		8.44	7.64	7.14
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	16	15	18.2	172.2				
Hailey, Nnenya (USA) (1994)		time	6.27	10.27	14.44	18.72	23.09		27.69	32.43	37.23	42.41	47.75		54.24	8 / 2			
reaction time	0.266	interval		4.00	4.17	4.28	4.37		4.60	4.74	4.80	5.18	5.34	6.49	**PB**		12.45	13.71	15.32
		velocity	7.18	8.75	8.39	8.18	8.01		7.61	7.38	7.29	6.76	6.55	6.16	7.37		8.43	7.66	6.85
H1 lead leg	L	strides		16	16	15	16		17	17	17	18	18	22.5	172.5				
Tate, Cassandra (USA) (1990		time	6.27	10.37	14.58	18.92	23.49		28.22	33.21	38.24	43.47	48.91		55.24	6 / 3			
reaction time	0.211	interval		4.10	4.21	4.34	4.57		4.73	4.99	5.03	5.23	5.44	6.33			12.65	14.29	15.70
		velocity	7.18	8.54	8.31	8.06	7.66		7.40	7.01	6.96	6.69	6.43	6.32	7.24		8.30	7.35	6.69
H1 lead leg	R	strides	22	14	14	14	15		15	16	15	16	16		157				
Bookman, Deonca (USA) (19		time	6.54	10.71	15.11	19.52	24.15		28.89	33.66	38.54	43.74			55.66	9 / 4			
reaction time	0.338	interval		4.17	4.40	4.41	4.63		4.74	4.77	4.88	5.20			**PB**		12.98	14.14	
		velocity	6.88	8.39	7.95	7.94	7.56		7.38	7.34	7.17	6.73			7.19		8.09	7.43	
H1 lead leg	R	strides		17	17	17	17		17	17	17	18	18		155				
Seymour, Kiah (USA) (1994)		time	6.50	10.67	14.98	19.35	23.92		28.72	33.63	38.57	43.81			55.84	7 / 5			
reaction time	0.204	interval		4.17	4.31	4.37	4.57		4.80	4.91	4.94	5.24					12.85	14.28	
		velocity	6.92	8.39	8.12	8.01	7.66		7.29	7.13	7.09	6.68			7.16		8.17	7.35	
H1 lead leg	R	strides	24	16	16	16	16			17	17	17	18		157				
Hoffman, Lauren (USA) (199		time	6.47	10.57	14.98	19.38	23.99		28.89	34.00	39.33	44.84			57.59	3 / 6			
reaction time	0.224	interval		4.10	4.41	4.40	4.61		4.90	5.11	5.33	5.51					12.91	14.62	
		velocity	6.96	8.54	7.94	7.95	7.59		7.14	6.85	6.57	6.35			6.95		8.13	7.18	
H1 lead leg	L	strides		15	16	16	16			17	18	18			116				
Lindley, Ashton (USA) (2002		time	6.54	11.04	15.65	20.32	25.15		30.26		40.83	46.21			58.04	2 / 7			
reaction time	0.288	interval		4.50	4.61	4.67	4.83		5.11		10.57	5.38					13.78		
		velocity	6.88	7.78	7.59	7.49	7.25		6.85		6.62	6.51			6.89		7.62		
H1 lead leg	L	strides		16	16	16	16					17			81				
Young, Milan (USA) (1999)		time	6.40	10.57	14.95	19.45	24.19		29.06	34.26	39.60	45.38			59.39	4 / 8			
reaction time	0.187	interval		4.17	4.38	4.50	4.74		4.87	5.20	5.34	5.78					13.05	14.81	
		velocity	7.03	8.39	7.99	7.78	7.38		7.19	6.73	6.55	6.06			6.74		8.05	7.09	
H1 lead leg	R	strides	22	15	15	15	15			16	16	17			131				

Heat 4 (TV Analysis

date 25-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.03	10.06	14.40	18.80	23.40		28.13	33.10	38.30	43.60	49.03		55.51	3 / 1			
reaction time	0.184	interval		4.03	4.34	4.40	4.60		4.73	4.97	5.20	5.30	5.43	6.48			12.77	14.30	15.93
		velocity	7.46	8.68	8.06	7.95	7.61		7.40	7.04	6.73	6.60	6.45	6.17	7.21		8.22	7.34	6.59
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				

Heat 3 (TV Analysis date 25-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tate, Cassandra (USA) (1990		time	6.36	10.43	14.80	19.36	24.00		28.70	33.60	38.90	44.26	49.75		56.11	2 / 1			
reaction time	0.230	interval		4.07	4.37	4.56	4.64		4.70	4.90	5.30	5.36	5.49	6.36			13.00	14.24	16.15
		velocity	7.08	8.60	8.01	7.68	7.54		7.45	7.14	6.60	6.53	6.38	6.29	7.13		8.08	7.37	6.50
H1 lead leg	R	strides		14	14	15	15		15	15	16	16	16	19.2	155.2				
Cockrell, Anna (USA) (1997)		time	6.40	10.70	15.20	19.73	24.50		29.46	34.70	39.73	44.90	50.26		56.83	7 / 2			
reaction time	0.196	interval		4.30	4.50	4.53	4.77		4.96	5.24	5.03	5.17	5.36	6.57			13.33	14.97	15.56
		velocity	7.03	8.14	7.78	7.73	7.34		7.06	6.68	6.96	6.77	6.53	6.09	7.04		7.88	7.01	6.75
H1 lead leg	L	strides	22	15	15	15	15		15	16	15	16	16	20	180				

Heat 2 (TV Analysis date 25-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.53	10.80	15.16	19.66	24.30		29.06	33.93	38.76	43.86	49.10		55.22	7 / 1			
reaction time	0.301	interval		4.27	4.36	4.50	4.64		4.76	4.87	4.83	5.10	5.24	6.12			13.13	14.27	15.17
		velocity	6.89	8.20	8.03	7.78	7.54		7.35	7.19	7.25	6.86	6.68	6.54	7.24		8.00	7.36	6.92
H1 lead leg	R	strides	23	15	15	15	16		16	16	16	16	16	19	183				
Spencer, Ashley (USA) (1993		time	6.36	10.70	15.16	19.63	24.26		29.03	33.93	38.93	44.16	49.60		55.92	8 / 2			
reaction time	0.182	interval		4.34	4.46	4.47	4.63		4.77	4.90	5.00	5.23	5.44	6.32			13.27	14.30	15.67
		velocity	7.08	8.06	7.85	7.83	7.56		7.34	7.14	7.00	6.69	6.43	6.33	7.15		7.91	7.34	6.70
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18	175				

Heat 1 (TV Analysis date 25-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.33	10.46	14.67	19.10	23.77		28.50	33.26	38.07	42.93	48.00		54.07	5 / 1			
reaction time	0.255	interval		4.13	4.21	4.43	4.67		4.73	4.76	4.81	4.86	5.07	6.07			12.77	14.16	14.74
		velocity	7.11	8.47	8.31	7.90	7.49		7.40	7.35	7.28	7.20	6.90	6.59	7.40		8.22	7.42	7.12
H1 lead leg	R	strides	22	14	14	15	15		15	15	15	15	16	18.2	174.2				
Hailey, Nnenya (USA) (1994)		time	6.33	10.40	14.60	19.10	23.76		28.47	33.23	38.17	43.37	48.63		55.05	8 / 2			
reaction time	0.291	interval		4.07	4.20	4.50	4.66		4.71	4.76	4.94	5.20	5.26	6.42			12.77	14.13	15.40
		velocity	7.11	8.60	8.33	7.78	7.51		7.43	7.35	7.09	6.73	6.65	6.23	7.27		8.22	7.43	6.82
H1 lead leg	L	strides		16	16	17	17		17	17	17	18	18	22.2	175.2				

2020 Chinese Olympic Trials (Shaoxing, CHN)

FINAL date 13-Jun-21

CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zou Yifan (CHN) (2000)		time	6.76	11.34	16.00	20.72	25.56		30.48	35.57	40.86	46.43	52.08		58.18	5 / 1			
reaction time	0.208	interval		4.58	4.66	4.72	4.84		4.92	5.09	5.29	5.57	5.65	6.10			13.96	14.85	16.51
		velocity	6.66	7.64	7.51	7.42	7.23		7.11	6.88	6.62	6.28	6.19	6.56	6.88		7.52	7.07	6.36
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	18	20.7	199.7				
Mo Jiadie (CHN) (2000)		time	6.69	11.14	15.82	20.42	25.21		30.13	35.25	40.42	45.88	51.62		58.34	4 / 2			
reaction time	0.254	interval		4.45	4.68	4.60	4.79		4.92	5.12	5.17	5.46	5.74	6.72			13.73	14.83	16.37
		velocity	6.73	7.87	7.48	7.61	7.31		7.11	6.84	6.77	6.41	6.10	5.95	6.86		7.65	7.08	6.41
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				
Tao Xue (CHN) (1999)		time	6.71	11.13	15.55	20.05	24.69		29.63	34.83	40.26	45.88	51.65		58.42	3 / 3			
reaction time	0.278	interval		4.42	4.42	4.50	4.64		4.94	5.20	5.43	5.62	5.77	6.77	PB		13.34	14.78	16.82
		velocity	6.71	7.92	7.92	7.78	7.54		7.09	6.73	6.45	6.23	6.07	5.91	6.85		7.87	7.10	6.24
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	20.5	186.5				
Kong Yingying (CHN) (2003		time	6.87	11.51	16.35	21.17	26.19		31.38	36.67	42.04	47.66	53.39		59.75	7 / 4			
reaction time	0.360	interval		4.64	4.84	4.82	5.02		5.19	5.29	5.37	5.62	5.73	6.36	PB		14.30	15.50	16.72
		velocity	6.55	7.54	7.23	7.26	6.97		6.74	6.62	6.52	6.23	6.11	6.29	6.69		7.34	6.77	6.28
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				
Yang Qi (CHN) (2000)		time	6.67	11.43	16.10	20.85	25.73		31.06	36.45	42.11	48.40	54.60		61.08	6 / 5			
reaction time	0.261	interval		4.76	4.67	4.75	4.88		5.33	5.39	5.66	6.29	6.20	6.48			14.18	15.60	18.15
		velocity	6.75	7.35	7.49	7.37	7.17		6.57	6.49	6.18	5.56	5.65	6.17	6.55		7.40	6.73	5.79
H1 lead leg	L	strides	24	16	16	16	16		16	17	18	19	19	21.5	198.5				
Ding Yirui (CHN) (2002)		time	6.84	11.41	16.25	21.34	26.53		31.90	37.29	42.89	48.63	54.47		61.13	8 / 6			
reaction time	0.247	interval		4.57	4.84	5.09	5.19		5.37	5.39	5.60	5.74	5.84	6.66			14.50	15.95	17.18
		velocity	6.58	7.66	7.23	6.88	6.74		6.52	6.49	6.25	6.10	5.99	6.01	6.54		7.24	6.58	6.11
H1 lead leg	L	strides	22	15	15	16	16		16	16	17	17	17	19.2	186.2				
Chen Liying (CHN) (1994)		time	6.56	10.98	15.70	20.62	25.71		30.86	36.29	41.91	47.96	54.22		61.27	2 / 7			
reaction time	0.168	interval		4.42	4.72	4.92	5.09		5.15	5.43	5.62	6.05	6.26	7.05			14.06	15.67	17.93
		velocity	6.86	7.92	7.42	7.11	6.88		6.80	6.45	6.23	5.79	5.59	5.67	6.53		7.47	6.70	5.86
H1 lead leg	R	strides	23	15	16	16	17		17	17	18	19	19	22	199				
Fu Yijia (CHN) (2001)		time	6.84	11.58	16.38	21.42	26.63		31.93	37.30	42.86	48.81	54.79		61.52	1 / 8			
reaction time	0.244	interval		4.74	4.80	5.04	5.21		5.30	5.37	5.56	5.95	5.98	6.73			14.58	15.88	17.49
		velocity	6.58	7.38	7.29	6.94	6.72		6.60	6.52	6.29	5.88	5.85	5.94	6.50		7.20	6.61	6.00
H1 lead leg	R	strides	23	16	16	17	17		17	17	17	18	18	21.7	197.7				

2021 NCAA Championships (Eugene, OR) (TV Analysis)

FINAL date 12-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Cockrell, Anna (USA) (1997)		time	6.27	10.53	14.87	19.40	24.13		28.93	33.80	38.67	43.67	48.67		54.68	6 / 1			
reaction time	0.166	interval		4.26	4.34	4.53	4.73		4.80	4.87	4.87	5.00	5.00	6.01	PB		13.13	14.40	14.87
		velocity	7.18	8.22	8.06	7.73	7.40		7.29	7.19	7.19	7.00	7.00	6.66	7.32		8.00	7.29	7.06
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19.7	178.7				
Meisberger, Shannon (USA)		time	6.60	10.97	15.17	19.60	24.17			33.87	38.83	44.03	49.40		55.70	8 / 2			
reaction time	0.275	interval		4.37	4.20	4.43	4.57			9.70	4.96	5.20	5.37	6.30	PB		13.00	14.27	15.53
		velocity	6.82	8.01	8.33	7.90	7.66			7.22	7.06	6.73	6.52	6.35	7.18		8.08	7.36	6.76
H1 lead leg	R	strides	23	15	15	15	16					17	17	20.5	138.5				
Knight, Andrenette (JAM) (1		time	6.40		14.83	19.23	23.97			33.73	38.70	43.97	49.47		55.81	4 / 3			
reaction time	0.178	interval			8.43	4.40	4.74			9.76	4.97	5.27	5.50	6.34			12.83	14.50	15.74
		velocity	7.03		8.30	7.95	7.38			7.17	7.04	6.64	6.36	6.31	7.17		8.18	7.24	6.67
H1 lead leg	R	strides	23			15	16					17	17	20.2	108.2				
Russell, Masai (USA) (2000)		time	6.37		15.00	19.63	24.40				39.30	44.47	49.87		56.18	5 / 4			
reaction time	0.335	interval			8.63	4.63	4.77				14.90	5.17	5.40	6.31	PB		13.26		
		velocity	7.06		8.11	7.56	7.34				7.05	6.77	6.48	6.34	7.12		7.92		
H1 lead leg	R	strides	24			15	16					16	17	21	109				
Young, Milan (USA) (1999)		time	6.47		15.13	19.73	24.50				38.90	43.83	49.13		56.23	9 / 5			
reaction time	0.218	interval			8.66	4.60	4.77				14.40	4.93	5.30	7.10	PB		13.26		
		velocity	6.96		8.08	7.61	7.34				7.29	7.10	6.60	5.63	7.11		7.92		
H1 lead leg	R	strides	23			15	15					15	16	21.5	105.5				
Ross, Faith (USA) (1998)		time	6.37		14.90	19.23	23.97				39.23	44.57	49.97		56.49	3 / 6			
reaction time	0.227	interval			8.53	4.33	4.74				15.26	5.34	5.40	6.52	PB		12.86		
		velocity	7.06		8.21	8.08	7.38				6.88	6.55	6.48	6.13	7.08		8.16		
H1 lead leg	L	strides	24			15	15					17	17	21.2	109.2				
Lindley, Ashton (USA) (2002		time	6.57		15.40	19.97	24.73				39.97	45.13	50.50		56.74	2 / 7			
reaction time	0.213	interval			8.83	4.57	4.76				15.24	5.16	5.37	6.24	PB		13.40		
		velocity	6.85		7.93	7.66	7.35				6.89	6.78	6.52	6.41	7.05		7.84		
H1 lead leg	L	strides	23			16	16					17	17		89				
Cho, Stephanie (CAN) (1997		time	6.67		15.63	20.30	25.17				40.73	46.07			57.48	1 / 8			
reaction time	0.298	interval			8.96	4.67	4.87				15.56	5.34			PB		13.63		
		velocity	6.75		7.81	7.49	7.19				6.75	6.55			6.96		7.70		
H1 lead leg	R	strides	22			15	15					16			68				
Humphrey, Brittley (USA) (1		time	6.47	10.60	14.87	19.43	24.20		29.23	34.33	39.63	45.07			57.51	7 / 9			
reaction time	0.177	interval		4.13	4.27	4.56	4.77		5.03	5.10	5.30	5.44					12.96	14.90	
		velocity	6.96	8.47	8.20	7.68	7.34		6.96	6.86	6.60	6.43			6.96		8.10	7.05	
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16			147				

2021 Golden Gala Pietro Mennea (Florence, ITA) (TV Analysis)

FINAL date 10-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.32	10.44	14.60	18.80	23.08	24.9	27.62	32.28	37.12	42.16	47.40		53.44	4 / 1			
reaction time	0.209	interval		4.12	4.16	4.20	4.28		4.54	4.66	4.84	5.04	5.24	6.04	NR PB		12.48	13.48	15.12
		velocity	7.12	8.50	8.41	8.33	8.18	8.03	7.71	7.51	7.23	6.94	6.68	6.62	7.49		8.41	7.79	6.94
H1 lead leg	L	strides	22	15	15		15		15	15	15	15	16	19.5	162.5				
Ryzhykova, Anna (UKR) (19		time	6.44	10.56	14.62	18.80	23.20	25.1	27.88	32.64	37.56	42.64	48.04		54.19	5 / 2			
reaction time	0.182	interval		4.12	4.06	4.18	4.40		4.68	4.76	4.92	5.08	5.40	6.15	PB		12.36	13.84	15.40
		velocity	6.99	8.50	8.62	8.37	7.95	7.97	7.48	7.35	7.11	6.89	6.48	6.50	7.38		8.50	7.59	6.82
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	16	19.7	173.7				
Turner, Jessica (GBR) (1995)		time	6.48	10.64	14.88	19.16	23.56	25.5	28.30	33.04	38.12	43.28	48.60		54.79	6 / 3			
reaction time	0.199	interval		4.16	4.24	4.28	4.40		4.74	4.74	5.08	5.16	5.32	6.19			12.68	13.88	15.56
		velocity	6.94	8.41	8.25	8.18	7.95	7.84	7.38	7.38	6.89	6.78	6.58	6.46	7.30		8.28	7.56	6.75
H1 lead leg	L	strides	24	15	15	15	15		16	16	17	17	17	20.2	187.2				
Nel, Wenda (RSA) (1988)		time	6.36	10.76	15.20	19.68	24.20	26.2	28.96	33.76	38.72	43.80	49.08		55.20	8 / 4			
reaction time	0.182	interval		4.40	4.44	4.48	4.52		4.76	4.80	4.96	5.08	5.28	6.12			13.32	14.08	15.32
		velocity	7.08	7.95	7.88	7.81	7.74	7.63	7.35	7.29	7.06	6.89	6.63	6.54	7.25		7.88	7.46	6.85
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17	21.5	192.5				
Petersen, Sara Slott (DEN) (1		time	6.44	10.68	14.96	19.32	23.70	25.7		33.08	38.16	43.48	48.96		55.21	2 / 5			
reaction time	0.144	interval		4.24	4.28	4.36	4.38			9.38	5.08	5.32	5.48	6.25			12.88	13.76	15.88
		velocity	6.99	8.25	8.18	8.03	7.99	7.78		7.46	6.89	6.58	6.39	6.40	7.25		8.15	7.63	6.61
H1 lead leg	R	strides	22	15	15		15				16	17	17	20.7	137.7				
Olivieri, Linda (ITA) (1998)		time	6.48	10.88	15.30	19.80	24.44	26.5	29.32	34.20	39.20	44.28	49.52		55.63	7 / 6			
reaction time	0.134	interval		4.40	4.42	4.50	4.64		4.88	4.88	5.00	5.08	5.24	6.11	PB		13.32	14.40	15.32

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	6.94	7.95	7.92	7.78	7.54	7.55	7.17	7.17	7.00	6.89	6.68	6.55	7.19		7.88	7.29	6.85
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	16	17	20.2	184.2				
Folorunso, Ayomide (ITA) (1		time	6.36	10.60	14.92	19.32	23.88	25.9		33.64	38.96	44.44	50.24		56.92	3 / 7			
reaction time	0.193	interval		4.24	4.32	4.40	4.56			9.76	5.32	5.48	5.80	6.68			12.96	14.32	16.60
		velocity	7.08	8.25	8.10	7.95	7.68	7.72		7.17	6.58	6.39	6.03	5.99	7.03		8.10	7.33	6.33
H1 lead leg	L	strides	23	15	15		15				17	17	18		120				
Belle, Tia-Adana (BAR) (199		time	6.72	11.20		20.68		27.6		35.56	40.92	46.48	52.08		58.36	1 / 8			
reaction time	0.172	interval		4.48		9.48				14.88	5.36	5.56	5.60	6.28			13.96	14.88	16.52
		velocity	6.70	7.81		7.38		7.25		7.06	6.53	6.29	6.25	6.37	6.85		7.52	7.06	6.36
H1 lead leg	R	strides	24	16							17	17	17		91				

2021 Music City Track Carnival (Nashville, TN) (TV Analysis)

FINAL

date 06-Jun-21

Henson (2021) - Athlete First: 2021 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.34	10.64	14.88	19.07	23.45		27.92	32.53	37.34	42.44	47.48		52.83	5 / 1			
reaction time		interval		4.30	4.24	4.19	4.38		4.47	4.61	4.81	5.10	5.04	5.35			12.73	13.46	14.95
		velocity	7.10	8.14	8.25	8.35	7.99		7.83	7.59	7.28	6.86	6.94	7.48	7.57		8.25	7.80	7.02
H1 lead leg	R	strides	22	15	14	14	14		14	15		16	16	18.5	158.5				

2021 Denka Athletics Challenge Cup (Niigata, JPN)

FINAL

date 06-Jun-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Utsunomiya, Eri (JPN) (1993)		time	6.51	10.78	15.10	19.54	24.22		29.06	34.08	39.37	44.79	50.43		57.03	5 / 1			
reaction time		interval		4.27	4.32	4.44	4.68		4.84	5.02	5.29	5.42	5.64	6.60			13.03	14.54	16.35
		velocity	6.91	8.20	8.10	7.88	7.48		7.23	6.97	6.62	6.46	6.21	6.06	7.01		8.06	7.22	6.42
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	22	188				
Ito, Akiko (JPN) (1995)		time	6.64	10.99	15.48	20.09	24.82		29.78	34.83	40.17	45.61	51.22		57.93	4 / 2			
reaction time		interval		4.35	4.49	4.61	4.73		4.96	5.05	5.34	5.44	5.61	6.71			13.45	14.74	16.39
		velocity	6.78	8.05	7.80	7.59	7.40		7.06	6.93	6.55	6.43	6.24	5.96	6.90		7.81	7.12	6.41
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	21.7	187.7				
Yokota, Karen (JPN) (1999)		time	6.81	11.39	16.05	20.85	25.83		30.80	35.87	41.11	46.53	52.05		58.37	8 / 3			
reaction time		interval		4.58	4.66	4.80	4.98		4.97	5.07	5.24	5.42	5.52	6.32			14.04	15.02	16.18
		velocity	6.61	7.64	7.51	7.29	7.03		7.04	6.90	6.68	6.46	6.34	6.33	6.85		7.48	6.99	6.49
H1 lead leg	R	strides	24	16	16	16	17		17	17	17	17	17		174				

B FINAL

date 06-Jun-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Higa, Kazuki (JPN) (1998)		time	6.86	11.35	15.97	20.67	25.56		30.65	35.85	41.16	46.55	52.14		58.83	6 / 1			
reaction time		interval		4.49	4.62	4.70	4.89		5.09	5.20	5.31	5.39	5.59	6.69			13.81	15.18	16.29
		velocity	6.56	7.80	7.58	7.45	7.16		6.88	6.73	6.59	6.49	6.26	5.98	6.80		7.60	6.92	6.45
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	22	195				
Saito, Mayu (JPN) (1995)		time	6.40	10.66	15.02	19.69	24.57		29.65	35.00	40.49	46.20	52.20		58.99	7 / 2			
reaction time		interval		4.26	4.36	4.67	4.88		5.08	5.35	5.49	5.71	6.00	6.79			13.29	15.31	17.20
		velocity	7.03	8.22	8.03	7.49	7.17		6.89	6.54	6.38	6.13	5.83	5.89	6.78		7.90	6.86	6.10
H1 lead leg	L	strides	24	16	16	17	17		17	18	18	19	19	23.2	204.2				
Kuki, Yurie (JPN) (1993)		time	6.86	11.26	15.82	20.47	25.44		30.48	35.84	41.34	47.01	52.92		59.42	4 / 3			
reaction time		interval		4.40	4.56	4.65	4.97		5.04	5.36	5.50	5.67	5.91	6.50			13.61	15.37	17.08
		velocity	6.56	7.95	7.68	7.53	7.04		6.94	6.53	6.36	6.17	5.92	6.15	6.73		7.71	6.83	6.15
H1 lead leg	R	strides	23	15	15	15	16		16	17	17	17	18	22.2	191.2				
Minamisawa, Akane (JPN) (1		time	6.97	11.54	16.10	20.70	25.59		30.55	35.72	41.04	46.56	52.45		59.45	5 / 4			
reaction time		interval		4.57	4.56	4.60	4.89		4.96	5.17	5.32	5.52	5.89	7.00			13.73	15.02	16.73
		velocity	6.46	7.66	7.68	7.61	7.16		7.06	6.77	6.58	6.34	5.94	5.71	6.73		7.65	6.99	6.28
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	18	22.7	194.7				

C FINAL

date 06-Jun-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Oshiden, Moe (JPN) (1993)		time	6.89	11.51	16.20	20.92	25.78		30.78	35.94	41.24	46.78	52.45		59.09	5 / 1			
reaction time		interval		4.62	4.69	4.72	4.86		5.00	5.16	5.30	5.54	5.67	6.64			14.03	15.02	16.51
		velocity	6.53	7.58	7.46	7.42	7.20		7.00	6.78	6.60	6.32	6.17	6.02	6.77		7.48	6.99	6.36
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17	21.7	192.7				

2021 Michitaka Kinami Memorial (Osaka, JPN)

FINAL

date 01-Jun-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Utsunomiya, Eri (JPN) (1993)		time	6.58	10.83	15.22	19.70	24.34		29.16	34.23	39.49	44.94	50.68		57.56	5 / 1			
reaction time	0.242	interval		4.25	4.39	4.48	4.64		4.82	5.07	5.26	5.45	5.74	6.88			13.12	14.53	16.45
		velocity	6.84	8.24	7.97	7.81	7.54		7.26	6.90	6.65	6.42	6.10	5.81	6.95		8.00	7.23	6.38
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	22	188				
Iburahim, Aisya (JPN) (1998)		time	6.82	11.11	15.48	20.05	24.84		29.76	34.82	40.01	45.52	51.29		58.01	7 / 2			
reaction time	0.251	interval		4.29	4.37	4.57	4.79		4.92	5.06	5.19	5.51	5.77	6.72			13.23	14.77	16.47

		velocity	6.60	8.16	8.01	7.66	7.31	7.11	6.92	6.74	6.35	6.07	5.95	6.90		7.94	7.11	6.38
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	16	16	20.2	179.2				
Yamamoto, Ami (JPN) (2002		time	6.84	11.34	15.89	20.59	25.43	30.45	35.64	40.89	46.45	52.12		58.48	2 / 3			
reaction time	0.257	interval		4.50	4.55	4.70	4.84	5.02	5.19	5.25	5.56	5.67	6.36			13.75	15.05	16.48
		velocity	6.58	7.78	7.69	7.45	7.23	6.97	6.74	6.67	6.29	6.17	6.29	6.84		7.64	6.98	6.37
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	18	18	21.5	196.5				
Ito, Akiko (JPN) (1995)		time	6.64	10.94	15.33	19.85	24.51	29.51	34.63	39.99	45.68	51.72		58.86	8 / 4			
reaction time	0.180	interval		4.30	4.39	4.52	4.66	5.00	5.12	5.36	5.69	6.04	7.14			13.21	14.78	17.09
		velocity	6.78	8.14	7.97	7.74	7.51	7.00	6.84	6.53	6.15	5.79	5.60	6.80		7.95	7.10	6.14
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	18	18	22	190				
Tsuha, Aiki (JPN) (2000)		time	6.74	11.19	15.83	20.65	25.61	30.60	35.77	41.06	46.56	52.27		58.93	9 / 5			
reaction time	0.179	interval		4.45	4.64	4.82	4.96	4.99	5.17	5.29	5.50	5.71	6.66			13.91	15.12	16.50
		velocity	6.68	7.87	7.54	7.26	7.06	7.01	6.77	6.62	6.36	6.13	6.01	6.79		7.55	6.94	6.36
H1 lead leg	L	strides	25	17	17	17	17	17	18	18	19	19	23.2	207.2				

B FINAL

date 01-Jun-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Yokota, Karen (JPN) (1999)		time	6.69	11.21	15.87	20.67	25.56		30.63	35.82	41.09	46.50	52.15		58.71	3 / 1			
reaction time	0.189	interval		4.52	4.66	4.80	4.89		5.07	5.19	5.27	5.41	5.65	6.56			13.98	15.15	16.33
		velocity	6.73	7.74	7.51	7.29	7.16		6.90	6.74	6.64	6.47	6.19	6.10	6.81		7.51	6.93	6.43
H1 lead leg	L	strides	23	16	16	16	17		17	17	17	17	17	21.7	194.7				
Aoki, Honoka (JPN) (2001)		time	6.76	11.19	15.75	20.42	25.31		30.38	35.69	41.22	46.78	52.47		58.77	7 / 2			
reaction time	0.189	interval		4.43	4.56	4.67	4.89		5.07	5.31	5.53	5.56	5.69	6.30			13.66	15.27	16.78
		velocity	6.66	7.90	7.68	7.49	7.16		6.90	6.59	6.33	6.29	6.15	6.35	6.81		7.69	6.88	6.26
H1 lead leg	L	strides	24	16	16	17	17		17	18	18	18	18	21.5	200.5				
Murakami, Natsumi (JPN) (1		time	6.91	11.31	15.85	20.64	25.51		30.55	35.77	41.11	46.58	52.30		58.79	5 / 3			
reaction time	0.231	interval		4.40	4.54	4.79	4.87		5.04	5.22	5.34	5.47	5.72	6.49			13.73	15.13	16.53
		velocity	6.51	7.95	7.71	7.31	7.19		6.94	6.70	6.55	6.40	6.12	6.16	6.80		7.65	6.94	6.35
H1 lead leg	R	strides	24	15	15	16	16		17	17	17	17	17	22.2	193.2				

2021 Shimane High School Championships (Honshu, JPN)

FINAL

date 29-May-21

Shimizu (2021) - shimane high school championships 2021 - biomechanics data analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
松本　春佳		time	7.48	12.85	18.37	23.97	29.65		35.42	41.38	47.50	53.97	60.42		67.20	6 / 1			
reaction time		interval		5.37	5.52	5.60	5.68		5.77	5.96	6.12	6.47	6.45	6.78			16.49	17.41	19.04
		velocity	6.02	6.52	6.34	6.25	6.16		6.07	5.87	5.72	5.41	5.43	5.90	5.95		6.37	6.03	5.51
H1 lead leg		strides	26	19	19	19	19		19	19	21	21	21	23	226				
中村　寧々		time	7.50	12.78	18.23	23.80	29.57		35.68	42.12	48.43	54.98	61.62		69.27	5 / 2			
reaction time		interval		5.28	5.45	5.57	5.77		6.11	6.44	6.31	6.55	6.64	7.65			16.30	18.32	19.50
		velocity	6.00	6.63	6.42	6.28	6.07		5.73	5.43	5.55	5.34	5.27	5.23	5.77		6.44	5.73	5.38
H1 lead leg		strides	26	19	19	19	19		21	21	21	21	21	25.3	232.3				
増原　帆花		time	7.62	12.98	18.73	24.45	30.38		36.52	42.82	49.15	55.60	62.23		69.69	3 / 3			
reaction time		interval		5.36	5.75	5.72	5.93		6.14	6.30	6.33	6.45	6.63	7.46			16.83	18.37	19.41
		velocity	5.91	6.53	6.09	6.12	5.90		5.70	5.56	5.53	5.43	5.28	5.36	5.74		6.24	5.72	5.41
H1 lead leg		strides	26	19	19	19	19		20	20	20	20	20	23.3	225.3				

2021 Philippe Cup Athletics Invitational (Wuhan, CHN)

FINAL

date 20-May-21

CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zou Yifan (CHN) (2000)		time	6.81	11.21	15.76	20.37	25.17		30.06	35.15	40.39	45.73	51.32		57.62	3 / 1			
reaction time	0.242	interval		4.40	4.55	4.61	4.80		4.89	5.09	5.24	5.34	5.59	6.30	PB		13.56	14.78	16.17
		velocity	6.61	7.95	7.69	7.59	7.29		7.16	6.88	6.68	6.55	6.26	6.35	6.94		7.74	7.10	6.49
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	17	21	198				
Jiang Liyunzhe (CHN) (2002		time	6.71	11.16	15.70	20.42	25.17		30.11	35.23	40.37	46.11	52.05		58.83	6 / 2			
reaction time	0.187	interval		4.45	4.54	4.72	4.75		4.94	5.12	5.14	5.74	5.94	6.78	PB		13.71	14.81	16.82
		velocity	6.71	7.87	7.71	7.42	7.37		7.09	6.84	6.81	6.10	5.89	5.90	6.80		7.66	7.09	6.24
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	22	197				
Kong Yingying (CHN) (2003		time	6.99	11.46	16.06	20.85	25.77		30.88	36.32	41.81	47.51	53.44		59.87	5 / 3			
reaction time	0.305	interval		4.47	4.60	4.79	4.92		5.11	5.44	5.49	5.70	5.93	6.43	PB		13.86	15.47	17.12
		velocity	6.44	7.83	7.61	7.31	7.11		6.85	6.43	6.38	6.14	5.90	6.22	6.68		7.58	6.79	6.13
H1 lead leg	L	strides	24	16	16	17	17		17	18	18	18	19	21.5	201.5				
Fei Jiayu (CHN) (2000)		time	7.02	11.58	16.15	21.00	25.86		30.96	36.27	41.72		53.49		60.25	4 / 4			
reaction time	0.213	interval		4.56	4.57	4.85	4.86		5.10	5.31	5.45		11.77	6.76	PB		13.98	15.27	17.22
		velocity	6.41	7.68	7.66	7.22	7.20		6.86	6.59	6.42		5.95	5.92	6.64		7.51	6.88	6.10
H1 lead leg	R	strides	24	16	16	16	16		17	17	17		18	21.5	178.5				
Wang Jiaqi (CHN) (2000)		time	7.06	11.51	16.20	20.99	25.93		31.00	36.37	42.06	48.00	54.17		61.24	2 / 5			
reaction time	0.246	interval		4.45	4.69	4.79	4.94		5.07	5.37	5.69	5.94	6.17	7.07			13.93	15.38	17.80
		velocity	6.37	7.87	7.46	7.31	7.09		6.90	6.52	6.15	5.89	5.67	5.66	6.53		7.54	6.83	5.90

H1 lead leg	R	strides	24	17	17	17	17		17	18	18	18	19		182			
Ye Xiulan (CHN) (1998)		time	7.11	11.76	16.68	21.62	26.71		32.10	37.57	43.46	49.31			62.68	7 / 6		
reaction time	0.338	interval		4.65	4.92	4.94	5.09		5.39	5.47	5.89	5.85					14.51	15.95
		velocity	6.33	7.53	7.11	7.09	6.88		6.49	6.40	5.94	5.98			6.38		7.24	6.58
H1 lead leg	R	strides	24	16	17	17	17		18	18	18	18			163			
Chen Lin (CHN) (2004)		time	7.47	12.33	17.33	22.42	27.66		33.23	38.94	44.79	50.85			64.20	8 / 7		
reaction time	0.243	interval		4.86	5.00	5.09	5.24		5.57	5.71	5.85	6.06					14.95	16.52
		velocity	6.02	7.20	7.00	6.88	6.68		6.28	6.13	5.98	5.78			6.23		7.02	6.36
H1 lead leg	R	strides	25	17	17	17	17		18	18	18	19			166			

2021 Ready Steady Tokyo (Tokyo, JPN)

FINAL date 09-May-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Utsunomiya, Eri (JPN) (1993)		time	6.52	10.78	15.13	19.60	24.17		29.11	34.20	39.42	44.69	50.12		56.50	6 / 1			
reaction time	0.178	interval		4.26	4.35	4.47	4.57		4.94	5.09	5.22	5.27	5.43	6.38	PB		13.08	14.60	15.92
		velocity	6.90	8.22	8.05	7.83	7.66		7.09	6.88	6.70	6.64	6.45	6.27	7.08		8.03	7.19	6.60
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	21	187				
Ito, Akiko (JPN) (1995)		time	6.57	10.91	15.45	20.12	24.94		29.98	35.04	40.31	45.70	51.17		57.76	4 / 2			
reaction time	0.153	interval		4.34	4.54	4.67	4.82		5.04	5.06	5.27	5.39	5.47	6.59			13.55	14.92	16.13
		velocity	6.85	8.06	7.71	7.49	7.26		6.94	6.92	6.64	6.49	6.40	6.07	6.93		7.75	7.04	6.51
H1 lead leg	L	strides	23	15	15	15	16		18	17	17	17	18	21	192				
Yokota, Karen (JPN) (1999)		time	6.74	11.26	15.88	20.66	25.56		30.48	35.54	40.71	45.98	51.50		58.00	3 / 3			
reaction time	0.178	interval		4.52	4.62	4.78	4.90		4.92	5.06	5.17	5.27	5.52	6.50	PB		13.92	14.88	15.96
		velocity	6.68	7.74	7.58	7.32	7.14		7.11	6.92	6.77	6.64	6.34	6.15	6.90		7.54	7.06	6.58
H1 lead leg	L	strides	23	16	16	17	17		17	17	17	17	17	21.7	195.7				
Ono, Mizuna (JPN) (2002)		time	6.66	11.04	15.67	20.42	25.26		30.31	35.47	40.88	46.34	51.90		58.43	5 / 4			
reaction time	0.149	interval		4.38	4.63	4.75	4.84		5.05	5.16	5.41	5.46	5.56	6.53			13.76	15.05	16.43
		velocity	6.76	7.99	7.56	7.37	7.23		6.93	6.78	6.47	6.41	6.29	6.13	6.85		7.63	6.98	6.39
H1 lead leg	L	strides	23	15	16	16	16		16	16	17	17	17	21	190				
Kuki, Yurie (JPN) (1993)		time	6.87	11.36	15.97	20.69	25.69		31.06	36.42	41.84	47.31	53.05		59.80	8 / 5			
reaction time	0.139	interval		4.49	4.61	4.72	5.00		5.37	5.36	5.42	5.47	5.74	6.75			13.82	15.73	16.63
		velocity	6.55	7.80	7.59	7.42	7.00		6.52	6.53	6.46	6.40	6.10	5.93	6.69		7.60	6.68	6.31
H1 lead leg	R	strides	23	15	15	15	16		18	17	17	17	18		171				
Nakano, Nano (JPN) (2001)		time	6.86	11.54	16.33	21.22	26.28		31.48	36.92	42.41	48.00	53.67		60.17	9 / 6			
reaction time	0.154	interval		4.68	4.79	4.89	5.06		5.20	5.44	5.49	5.59	5.67	6.50			14.36	15.70	16.75
		velocity	6.56	7.48	7.31	7.16	6.92		6.73	6.43	6.38	6.26	6.17	6.15	6.65		7.31	6.69	6.27
H1 lead leg	L	strides	24	17	17	17	17		17	19	19	19	19		185				
Mizuguchi, Moe (JPN) (2002)		time	6.96	11.64	16.48	21.30	26.33		31.51	37.14	42.81	48.57	54.59		61.41	1 / 7			
reaction time	0.194	interval		4.68	4.84	4.82	5.03		5.18	5.63	5.67	5.76	6.02	6.82			14.34	15.84	17.45
		velocity	6.47	7.48	7.23	7.26	6.96		6.76	6.22	6.17	6.08	5.81	5.87	6.51		7.32	6.63	6.02
H1 lead leg	R	strides	24	16	17	16	17		17	18	18	18	18		179				

2021 Shizuoka International Athletics Meeting (Fukuroi, JPN)

Final date 03-May-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Seikmoto, Moeka (JPN) (2000)		time	6.71	11.08	15.58	20.10	24.76		29.56	34.42	39.44	44.73	50.34		57.33	6 / 1			
reaction time	0.216	interval		4.37	4.50	4.52	4.66		4.80	4.86	5.02	5.29	5.61	6.99			13.39	14.32	15.92
		velocity	6.71	8.01	7.78	7.74	7.51		7.29	7.20	6.97	6.62	6.24	5.72	6.98		7.84	7.33	6.60
H1 lead leg	R	strides	22	15	15	15	15		16	16	17	17	17	22	187				
Utsunomiya, Eri (JPN) (1993)		time	6.56	10.86	15.35	19.84	24.47		29.48	34.55	39.89	45.28	50.98		57.57	4 / 2			
reaction time	0.196	interval		4.30	4.49	4.49	4.63		5.01	5.07	5.34	5.39	5.70	6.59			13.28	14.71	16.43
		velocity	6.86	8.14	7.80	7.80	7.56		6.99	6.90	6.55	6.49	6.14	6.07	6.95		7.91	7.14	6.39
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	22	188				
Ito, Akiko (JPN) (1995)		time	6.62	10.99	15.62	20.39	25.23		30.26	35.32	40.64	46.20	51.92		58.65	7 / 3			
reaction time	0.166	interval		4.37	4.63	4.77	4.84		5.03	5.06	5.32	5.56	5.72	6.73			13.77	14.93	16.60
		velocity	6.80	8.01	7.56	7.34	7.23		6.96	6.92	6.58	6.29	6.12	5.94	6.82		7.63	7.03	6.33
H1 lead leg	L	strides	23	15	15	16	16		16	16	17	17	17		168				
Kawamura, Yuka (JPN) (2001)		time	7.02	11.64	16.42	21.20	26.06		31.15	36.29	41.56	46.95	52.50		58.96	3 / 4			
reaction time	0.214	interval		4.62	4.78	4.78	4.86		5.09	5.14	5.27	5.39	5.55	6.46			14.18	15.09	16.21
		velocity	6.41	7.58	7.32	7.32	7.20		6.88	6.81	6.64	6.49	6.31	6.19	6.78		7.40	6.96	6.48
H1 lead leg	R	strides	23	16	16	16	16		17	17	17	17	17		172				
Ono, Mizuna (JPN) (2002)		time	6.79	11.44	16.22	21.05	26.09		31.15	36.30	41.57	46.98	52.57		59.21	8 / 5			
reaction time	0.161	interval		4.65	4.78	4.83	5.04		5.06	5.15	5.27	5.41	5.59	6.64			14.26	15.25	16.27
		velocity	6.63	7.53	7.32	7.25	6.94		6.92	6.80	6.64	6.47	6.26	6.02	6.76		7.36	6.89	6.45
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17		171				
Tsugawa, Rui (JPN) (2001)		time	7.07	11.81	16.72	21.62	26.71		31.80	36.97	42.23	47.60	53.27		60.52	9 / 6			

reaction time	0.230	interval		4.74	4.91	4.90	5.09	5.09	5.17	5.26	5.37	5.67	7.25			14.55	15.35	16.30
		velocity	6.36	7.38	7.13	7.14	6.88	6.88	6.77	6.65	6.52	6.17	5.52	6.61		7.22	6.84	6.44
H1 lead leg	L	strides	23	17	17	17	17	17	17	17	17	18		177				

B FINAL

date 03-May-21

Sugimoto (2021) - race analysis of men's and women's 400m hurdles in the 2021 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tsuha, Aiki (JPN) (2000)		time	6.76	11.41	16.17	20.92	25.83		30.73	35.89	41.14	46.70	52.60		59.62	5 / 1			
reaction time	0.174	interval		4.65	4.76	4.75	4.91		4.90	5.16	5.25	5.56	5.90	7.02			14.16	14.97	16.71
		velocity	6.66	7.53	7.35	7.37	7.13		7.14	6.78	6.67	6.29	5.93	5.70	6.71		7.42	7.01	6.28
H1 lead leg	L	strides	25	17	17	17	17		17	18	18	18	18	24	206				
Yokota, Karen (JPN) (1999)		time	6.84	11.51	16.27	21.17	26.18		31.18	36.34	41.59	47.20	53.09		59.83	7 / 2			
reaction time	0.185	interval		4.67	4.76	4.90	5.01		5.00	5.16	5.25	5.61	5.89	6.74			14.33	15.17	16.75
		velocity	6.58	7.49	7.35	7.14	6.99		7.00	6.78	6.67	6.24	5.94	5.93	6.69		7.33	6.92	6.27
H1 lead leg	L	strides	23	16	16	17	17		17	17	17	17	17	22.2	196.2				

2021 East China District Meeting (Zhaoqing, CHN)

FINAL

date 25-Apr-21

CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.56	10.89	15.35	19.94	24.66		29.60	34.68	39.89	45.28	50.83		56.73	5 / 1			
reaction time	0.258	interval		4.33	4.46	4.59	4.72		4.94	5.08	5.21	5.39	5.55	5.90			13.38	14.74	16.15
		velocity	6.86	8.08	7.85	7.63	7.42		7.09	6.89	6.72	6.49	6.31	6.78	7.05		7.85	7.12	6.50
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				
Zou Yifan (CHN) (2000)		time	6.74	11.26	15.85	20.57	25.47		30.56	35.79	41.02	46.33	51.77		57.78	6 / 2			
reaction time	0.243	interval		4.52	4.59	4.72	4.90		5.09	5.23	5.23	5.31	5.44	6.01			13.83	15.22	15.98
		velocity	6.68	7.74	7.63	7.42	7.14		6.88	6.69	6.69	6.59	6.43	6.66	6.92		7.59	6.90	6.57
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	17	20	197				
Wu Xueting (CHN) (1995)		time	6.94	11.46	16.16	20.92	25.94		31.11	36.52	42.04	47.55	53.07		59.25	2 / 3			
reaction time	0.239	interval		4.52	4.70	4.76	5.02		5.17	5.41	5.52	5.51	5.52	6.18			13.98	15.60	16.55
		velocity	6.48	7.74	7.45	7.35	6.97		6.77	6.47	6.34	6.35	6.34	6.47	6.75		7.51	6.73	6.34
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	17	20	187				
Huang Yan (CHN) (1996)		time	6.77	11.23	15.80	20.65	25.69		30.76	36.12	41.99	47.63	53.29		59.80	4 / 4			
reaction time	0.236	interval		4.46	4.57	4.85	5.04		5.07	5.36	5.87	5.64	5.66	6.51			13.88	15.47	17.17
		velocity	6.65	7.85	7.66	7.22	6.94		6.90	6.53	5.96	6.21	6.18	6.14	6.69		7.56	6.79	6.12
H1 lead leg	L	strides	24	16	16	17	17		17	18	19	18	18	21	201				
Liu Hongjuan (CHN) (1996)		time	6.66	11.18	15.82	20.68	25.68		30.94	36.40	41.90	47.74	53.58		60.33	7 / 5			
reaction time	0.240	interval		4.52	4.64	4.86	5.00		5.26	5.46	5.50	5.84	5.84	6.75			14.02	15.72	17.18
		velocity	6.76	7.74	7.54	7.20	7.00		6.65	6.41	6.36	5.99	5.99	5.93	6.63		7.49	6.68	6.11
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18	22	196				
Ou Ying (CHN) (2001)		time	6.98	11.64	16.42	21.32	26.38		31.66	37.20	42.86	48.54	54.32		61.01	8 / 6			
reaction time	0.237	interval		4.66	4.78	4.90	5.06		5.28	5.54	5.66	5.68	5.78	6.69			14.34	15.88	17.12
		velocity	6.45	7.51	7.32	7.14	6.92		6.63	6.32	6.18	6.16	6.06	5.98	6.56		7.32	6.61	6.13
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	18	19	22	204				
Chen Liying (CHN) (1994)		time	6.96	11.72	16.48	21.38	26.42		31.76	37.34	43.16	49.18	55.12		61.86	9 / 7			
reaction time	0.199	interval		4.76	4.76	4.90	5.04		5.34	5.58	5.82	6.02	5.94	6.74			14.42	15.96	17.78
		velocity	6.47	7.35	7.35	7.14	6.94		6.55	6.27	6.01	5.81	5.89	5.93	6.47		7.28	6.58	5.91
H1 lead leg	R	strides	24	16	16	16	16		17	17	18	18	19	21.5	198.5				

Heat 3

date 25-Apr-21

CAA Hurdle Development (2021)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)		time	6.82	11.38	15.98	20.82	25.83		30.91	36.14	41.69	47.30	53.15		60.05	4 / 1			
reaction time	0.232	interval		4.56	4.60	4.84	5.01		5.08	5.23	5.55	5.61	5.85	6.90			14.00	15.32	17.01
		velocity	6.60	7.68	7.61	7.23	6.99		6.89	6.69	6.31	6.24	5.98	5.80	6.66		7.50	6.85	6.17
H1 lead leg	L	strides	24	16	16	17	17		17	17	18	18	19	22	201				
Ou Ying (CHN) (2001)		time	7.16	11.79	16.57	21.37	26.31		31.41	36.84	42.48	48.30	54.10		60.65	3 / 2			
reaction time	0.255	interval		4.63	4.78	4.80	4.94		5.10	5.43	5.64	5.82	5.80	6.55			14.21	15.47	17.26
		velocity	6.28	7.56	7.32	7.29	7.09		6.86	6.45	6.21	6.01	6.03	6.11	6.60		7.39	6.79	6.08
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	19	19	22	205				
Chen Leyi (CHN) (2003)		time	7.10	11.81	16.77	22.02	27.46		33.06	38.92	44.80	50.68	56.64		63.15	6 / 3			
reaction time	0.339	interval		4.71	4.96	5.25	5.44		5.60	5.86	5.88	5.88	5.96	6.51			14.92	16.90	17.72
		velocity	6.34	7.43	7.06	6.67	6.43		6.25	5.97	5.95	5.95	5.87	6.14	6.33		7.04	6.21	5.93
H1 lead leg	L	strides	25	17	17	18	18		18	19	19	19	19	22	211				
Tang Ziying (CHN) (1999)		time	7.26	12.26	17.30	22.39	27.63		33.00	38.54	44.22	50.02	56.30		63.44	8 / 4			
reaction time	0.257	interval		5.00	5.04	5.09	5.24		5.37	5.54	5.68	5.80	6.28	7.14			15.13	16.15	17.76
		velocity	6.20	7.00	6.94	6.88	6.68		6.52	6.32	6.16	6.03	5.57	5.60	6.31		6.94	6.50	5.91
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	19	22	201				
Tang Chan (CHN) (2003)		time	7.28	12.16	17.28	22.53	28.00		33.60	39.61	46.00	52.42	58.80		65.39	7 / 5			
reaction time	0.331	interval		4.88	5.12	5.25	5.47		5.60	6.01	6.39	6.42	6.38	6.59			15.25	17.08	19.19
		velocity	6.18	7.17	6.84	6.67	6.40		6.25	5.82	5.48	5.45	5.49	6.07	6.12		6.89	6.15	5.47

H1 lead leg	L	strides	24	17	17	17	17		17	17	19		19	21	185			
Lin Zixin (CHN) (2004)		time	7.54	12.70	18.08	23.61									72.25	5 / 6		
reaction time	0.223	interval		5.16	5.38	5.53											16.07	
		velocity	5.97	6.78	6.51	6.33									5.54		6.53	
H1 lead leg	L	strides	24	17	17	17									75			

Heat 2

date 25-Apr-21 *CAA Hurdle Development (2021)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.84	11.28	15.83	20.44	25.22		30.28	35.65	41.19	47.01	53.00		59.57	3 / 1			
reaction time	0.312	interval		4.44	4.55	4.61	4.78		5.06	5.37	5.54	5.82	5.99	6.57			13.60	15.21	17.35
		velocity	6.58	7.88	7.69	7.59	7.32		6.92	6.52	6.32	6.01	5.84	6.09	6.71		7.72	6.90	6.05
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				
Wu Xueting (CHN) (1995)		time	7.00	11.60	16.25	21.02	26.06		31.31	36.72	42.28	48.02	54.04		60.99	7 / 2			
reaction time	0.265	interval		4.60	4.65	4.77	5.04		5.25	5.41	5.56	5.74	6.02	6.95			14.02	15.70	17.32
		velocity	6.43	7.61	7.53	7.34	6.94		6.67	6.47	6.29	6.10	5.81	5.76	6.56		7.49	6.69	6.06
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	18	21	189				
Jiang Liyunzhe (CHN) (2002		time	6.84	11.48	16.24	21.18	26.24		31.38	36.72	42.26	48.36	54.40		61.03	8 / 3			
reaction time	0.246	interval		4.64	4.76	4.94	5.06		5.14	5.34	5.54	6.10	6.04	6.63			14.34	15.54	17.68
		velocity	6.58	7.54	7.35	7.09	6.92		6.81	6.55	6.32	5.74	5.79	6.03	6.55		7.32	6.76	5.94
H1 lead leg	L	strides	24	16	16	17	17		17	17	17	19	19	21	200				
Fei Jiayu (CHN) (2000)		time	7.17	11.96	16.80	21.74	26.81		32.01	37.37	42.90	48.80	54.80		61.67	6 / 4			
reaction time	0.222	interval		4.79	4.84	4.94	5.07		5.20	5.36	5.53	5.90	6.00	6.87			14.57	15.63	17.43
		velocity	6.28	7.31	7.23	7.09	6.90		6.73	6.53	6.33	5.93	5.83	5.82	6.49		7.21	6.72	6.02
H1 lead leg	R	strides	24	16	16	17	17		17	17	17	18	18	21.5	198.5				
Tao Xue (CHN) (1999)		time	6.92	11.23	15.63	20.10	24.67		29.56	34.68	40.11	45.90	51.87		63.30	2 / 5			
reaction time	0.292	interval		4.31	4.40	4.47	4.57		4.89	5.12	5.43	5.79	5.97	11.43			13.18	14.58	17.19
		velocity	6.50	8.12	7.95	7.83	7.66		7.16	6.84	6.45	6.04	5.86	3.50	6.32		7.97	7.20	6.11
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	18	18		168				
Feng Meiya (CHN) (2001)		time	7.02	11.70	16.50	21.45	26.74		32.35	38.25	44.50				64.33	4 / 6			
reaction time	0.231	interval		4.68	4.80	4.95	5.29		5.61	5.90	6.25						14.43	16.80	
		velocity	6.41	7.48	7.29	7.07	6.62		6.24	5.93	5.60				6.22		7.28	6.25	
H1 lead leg	L	strides	24	17	17	17	17		18	19	20				149				

Heat 1

date 25-Apr-21 *CAA Hurdle Development (2021)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zou Yifan (CHN) (2000)		time	6.76	11.21	15.72	20.32	25.09		30.01	35.08	40.26	45.81	51.43		57.63	4 / 1			
reaction time	0.247	interval		4.45	4.51	4.60	4.77		4.92	5.07	5.18	5.55	5.62	6.20	PB		13.56	14.76	16.35
		velocity	6.66	7.87	7.76	7.61	7.34		7.11	6.90	6.76	6.31	6.23	6.45	6.94		7.74	7.11	6.42
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	18	21	200				
Liu Hongjuan (CHN) (1996)		time	6.82	11.36	16.00	20.82	25.78		31.05	36.44	42.04	47.78	53.75		60.54	7 / 2			
reaction time	0.249	interval		4.54	4.64	4.82	4.96		5.27	5.39	5.60	5.74	5.97	6.79			14.00	15.62	17.31
		velocity	6.60	7.71	7.54	7.26	7.06		6.64	6.49	6.25	6.10	5.86	5.89	6.61		7.50	6.72	6.07
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	19	22	197				
Chen Liying (CHN) (1994)		time	6.87	11.41	16.10	20.84	25.74		30.85	36.10	41.61	47.63	53.75		60.55	3 / 3			
reaction time	0.214	interval		4.54	4.69	4.74	4.90		5.11	5.25	5.51	6.02	6.12	6.80			13.97	15.26	17.65
		velocity	6.55	7.71	7.46	7.38	7.14		6.85	6.67	6.35	5.81	5.72	5.88	6.61		7.52	6.88	5.95
H1 lead leg	R	strides	24	16	16	16	16		17	17	18	19	19	22	200				
Chen Zhuo (CHN) (2001)		time	7.02	11.61	16.22	20.97	25.99		31.35	36.87	42.73	48.82	55.04		62.21	6 / 4			
reaction time	0.247	interval		4.59	4.61	4.75	5.02		5.36	5.52	5.86	6.09	6.22	7.17			13.95	15.90	18.17
		velocity	6.41	7.63	7.59	7.37	6.97		6.53	6.34	5.97	5.75	5.63	5.58	6.43		7.53	6.60	5.78
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	19	22	199				
Zhang Dongmei (CHN) (200		time	6.82	11.41	16.17	21.10	26.28		31.78	37.70	43.66	49.90	56.12		62.82	5 / 5			
reaction time	0.216	interval		4.59	4.76	4.93	5.18		5.50	5.92	5.96	6.24	6.22	6.70			14.28	16.60	18.42
		velocity	6.60	7.63	7.35	7.10	6.76		6.36	5.91	5.87	5.61	5.63	5.97	6.37		7.35	6.33	5.70
H1 lead leg	L	strides	24	17	17	17	17		19	19	19	19	19	21	208				
Song Zhixin (CHN) (2005)		time	7.50	12.46	17.48	22.69	28.10		33.77	39.79					66.25	8 / 6			
reaction time	0.312	interval		4.96	5.02	5.21	5.41		5.67	6.02							15.19	17.10	
		velocity	6.00	7.06	6.97	6.72	6.47		6.17	5.81					6.04		6.91	6.14	
H1 lead leg	L	strides	24	17	17	17	17		17	18					127				

2021 National Grand Prix (Chengdu, CHN)

FINAL

date 02-Apr-21 *CAA Hurdle Development (2021)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Chen Lin (CHN) (2004)		time	6.95	11.63	16.46	21.46	26.56		31.77	37.29	42.87	48.52	54.17		60.69	3 / 1			
reaction time	0.207	interval		4.68	4.83	5.00	5.10		5.21	5.52	5.58	5.65	5.65	6.52			14.51	15.83	16.88
		velocity	6.47	7.48	7.25	7.00	6.86		6.72	6.34	6.27	6.19	6.19	6.13	6.59		7.24	6.63	6.22
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	18	18	22	203				

Liu Wei (CHN) (2001)		time	7.13	11.83	16.56	21.36	26.31	31.29	36.54	42.10	47.93	53.95		61.31	5 / 2			
reaction time	0.298	interval		4.70	4.73	4.80	4.95	4.98	5.25	5.56	5.83	6.02	7.36			14.23	15.18	17.41
		velocity	6.31	7.45	7.40	7.29	7.07	7.03	6.67	6.29	6.00	5.81	5.43	6.52		7.38	6.92	6.03
H1 lead leg	L	strides	24	17	17	17	17	17	18	19	19	19	24	208				
Hu Lihong (CHN) (1999)		time	6.91	11.48	16.13	20.86	25.79	30.96	36.35	42.17	48.38	54.90		62.74	6 / 3			
reaction time	0.154	interval		4.57	4.65	4.73	4.93	5.17	5.39	5.82	6.21	6.52	7.84			13.95	15.49	18.55
		velocity	6.51	7.66	7.53	7.40	7.10	6.77	6.49	6.01	5.64	5.37	5.10	6.38		7.53	6.78	5.66
H1 lead leg	L	strides	23	16	16	16	16	17	17	17	18	18	22.7	196.7				
Teng Xinyao (CHN) (2000)		time	7.40	12.29	17.28	22.37	27.72	33.40	39.40	45.62	51.93			65.12	4 / 4			
reaction time	0.290	interval		4.89	4.99	5.09	5.35	5.68	6.00	6.22	6.31					14.97	17.03	
		velocity	6.08	7.16	7.01	6.88	6.54	6.16	5.83	5.63	5.55			6.14		7.01	6.17	
H1 lead leg	R	strides	24	17	17	17	17	19	19	19	19			168				
Huang Jie (CHN) (2005)		time	7.23	11.93	16.71	21.71	26.99	32.66	38.87	45.58				dnf	8 / --			
reaction time	0.312	interval		4.70	4.78	5.00	5.28	5.67	6.21	6.71						14.48	17.16	
		velocity	6.22	7.45	7.32	7.00	6.63	6.17	5.64	5.22						7.25	6.12	
H1 lead leg	L	strides	25	17	17	17	17	17	19	19				148				

2020 Japanese U20 National Championships (Hiroshima, JPN)

FINAL date 25-Oct-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Nakano, Nano (JPN) (2001)		time	6.96	11.61	16.38	21.19	26.14		31.35	36.65	42.11	47.46	52.84		58.94	6 / 1			
reaction time	0.211	interval		4.65	4.77	4.81	4.95		5.21	5.30	5.46	5.35	5.38	6.10			14.23	15.46	16.19
		velocity	6.47	7.53	7.34	7.28	7.07		6.72	6.60	6.41	6.54	6.51	6.56	6.79		7.38	6.79	6.49
H1 lead leg		strides		17	17	17	17		17	19	19	19	19		161				
Aoki, Honoka (JPN) (2001)		time	6.94	11.53	16.20	21.02	26.06		31.16	36.42	41.89	47.45	52.92		59.02	5 / 2			
reaction time	0.202	interval		4.59	4.67	4.82	5.04		5.10	5.26	5.47	5.56	5.47	6.10			14.08	15.40	16.50
		velocity	6.48	7.63	7.49	7.26	6.94		6.86	6.65	6.40	6.29	6.40	6.56	6.78		7.46	6.82	6.36
H1 lead leg		strides		16	16	17	17		17	17	18	18	18		154				
Kagawa, Yumeka (JPN) (2001		time	7.02	11.70	16.55	21.45	26.51		31.78	37.17	42.74	48.31	53.89		60.11	3 / 3			
reaction time	0.230	interval		4.68	4.85	4.90	5.06		5.27	5.39	5.57	5.57	5.58	6.22			14.43	15.72	16.72
		velocity	6.41	7.48	7.22	7.14	6.92		6.64	6.49	6.28	6.28	6.27	6.43	6.65		7.28	6.68	6.28
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				
奥林 凛		time	6.87	11.59	16.47	21.49	26.61		31.90	37.32	42.83	48.33	53.94		60.52	7 / 4			
reaction time	0.203	interval		4.72	4.88	5.02	5.12		5.29	5.42	5.51	5.50	5.61	6.58			14.62	15.83	16.62
		velocity	6.55	7.42	7.17	6.97	6.84		6.62	6.46	6.35	6.36	6.24	6.08	6.61		7.18	6.63	6.32
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				
Aruga, Chiharu (JPN) (2001)		time	6.99	11.64	16.42	21.34	26.54		32.00	37.64	43.46	49.12	54.60		60.72	4 / 5			
reaction time	0.174	interval		4.65	4.78	4.92	5.20		5.46	5.64	5.82	5.66	5.48	6.12			14.35	16.30	16.96
		velocity	6.44	7.53	7.32	7.11	6.73		6.41	6.21	6.01	6.18	6.39	6.54	6.59		7.32	6.44	6.19
H1 lead leg		strides		17	17	17	17		18	19	20	19	19		163				
Manabe, Ayana (JPN) (2001)		time	7.27	12.20	17.22	22.37	27.58		32.90	38.39	43.99	49.53	55.12		61.35	2 / 6			
reaction time	0.202	interval		4.93	5.02	5.15	5.21		5.32	5.49	5.60	5.54	5.59	6.23			15.10	16.02	16.73
		velocity	6.19	7.10	6.97	6.80	6.72		6.58	6.38	6.25	6.32	6.26	6.42	6.52		6.95	6.55	6.28
H1 lead leg		strides		16	16	16	16		16	17	17	17	17		148				
大川 なずな		time	7.31	12.18	17.07	22.01	27.08		32.23	37.47	42.86	48.40	54.42		61.63	8 / 7			
reaction time	0.249	interval		4.87	4.89	4.94	5.07		5.15	5.24	5.39	5.54	6.02	7.21			14.70	15.46	16.95
		velocity	6.16	7.19	7.16	7.09	6.90		6.80	6.68	6.49	6.32	5.81	5.55	6.49		7.14	6.79	6.19
H1 lead leg		strides		17	17	17	17		17	17	17	17	19		155				
Ban, Nozomi (JPN) (2001)		time	6.87	11.53	16.35	21.32	26.49		31.72	37.14	42.66	48.55	54.70		61.65	1 / 8			
reaction time	0.176	interval		4.66	4.82	4.97	5.17		5.23	5.42	5.52	5.89	6.15	6.95			14.45	15.82	17.56
		velocity	6.55	7.51	7.26	7.04	6.77		6.69	6.46	6.34	5.94	5.69	5.76	6.49		7.27	6.64	5.98
H1 lead leg		strides		16	16	17	17		17	17	17	19	19		155				

2020 Japanese High School National Championships (Hiroshima, JPN)

FINAL date 25-Oct-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Yamamoto, Ami (JPN) (2002)		time	6.69	11.11	15.72	20.34	25.06		30.05	35.25	40.44	45.83	51.32		57.51	3 / 1			
reaction time	0.208	interval		4.42	4.61	4.62	4.72		4.99	5.20	5.19	5.39	5.49	6.19			13.65	14.91	16.07
		velocity	6.73	7.92	7.59	7.58	7.42		7.01	6.73	6.74	6.49	6.38	6.46	6.96		7.69	7.04	6.53
H1 lead leg		strides		16	16	16	16		17	17	17	18	18		151				
Ono, Mizuna (JPN) (2002)		time	6.64	11.08	15.58	20.15	24.92		29.96	35.19	40.47	46.00	51.55		57.81	8 / 2			
reaction time	0.159	interval		4.44	4.50	4.57	4.77		5.04	5.23	5.28	5.53	5.55	6.26			13.51	15.04	16.36
		velocity	6.78	7.88	7.78	7.66	7.34		6.94	6.69	6.63	6.33	6.31	6.39	6.92		7.77	6.98	6.42
H1 lead leg		strides		16	16	16	16		16	17	17	17	17		148				
塚本 萌乃		time	6.72	11.24	15.83	20.54	25.43		30.58	35.89	41.24	46.90	52.49		58.84	5 / 3			
reaction time	0.181	interval		4.52	4.59	4.71	4.89		5.15	5.31	5.35	5.66	5.59	6.35			13.82	15.35	16.60
		velocity	6.70	7.74	7.63	7.43	7.16		6.80	6.59	6.54	6.18	6.26	6.30	6.80		7.60	6.84	6.33

H1 lead leg		strides		17	17	17	17	18	18	19	19	19		161				
Mitzuguchi, Moe (JPN) (200		time	6.62	10.94	15.45	20.05	24.74	29.78	35.02	40.32	45.98	52.14		59.16	7 / 4			
reaction time	0.192	interval		4.32	4.51	4.60	4.69	5.04	5.24	5.30	5.66	6.16	7.02			13.43	14.97	17.12
		velocity	6.80	8.10	7.76	7.61	7.46	6.94	6.68	6.60	6.18	5.68	5.70	6.76		7.82	7.01	6.13
H1 lead leg		strides		16	16	17	17	17	17	17	18	19		154				
大川 寿美香		time	6.84	11.46	16.12	20.89	25.84	31.00	36.29	41.61	47.20	52.90		59.22	4 / 5			
reaction time	0.168	interval		4.62	4.66	4.77	4.95	5.16	5.29	5.32	5.59	5.70	6.32			14.05	15.40	16.61
		velocity	6.58	7.58	7.51	7.34	7.07	6.78	6.62	6.58	6.26	6.14	6.33	6.75		7.47	6.82	6.32
H1 lead leg		strides		17	17	17	17	17	17	17	19	19		157				
日下 あやな		time	6.86	11.39	16.03	20.80	25.68	30.90	36.64	42.38	48.31	54.27		60.60	2 / 6			
reaction time	0.188	interval		4.53	4.64	4.77	4.88	5.22	5.74	5.74	5.93	5.96	6.33			13.94	15.84	17.63
		velocity	6.56	7.73	7.54	7.34	7.17	6.70	6.10	6.10	5.90	5.87	6.32	6.60		7.53	6.63	5.96
H1 lead leg		strides		17	17	17	17	17	19	19	19	19		161				
Kudo, Mei (JPN) (2002)		time	6.92	11.58	16.45	21.40	26.51	31.77	37.24	42.93	48.87	54.79		60.75	6 / 7			
reaction time	0.210	interval		4.66	4.87	4.95	5.11	5.26	5.47	5.69	5.94	5.92	5.96			14.48	15.84	17.55
		velocity	6.50	7.51	7.19	7.07	6.85	6.65	6.40	6.15	5.89	5.91	6.71	6.58		7.25	6.63	5.98
H1 lead leg		strides		17	18	17	17	17	17	17	19	19		158				
樋口 綾音		time	6.92	11.58	16.27	21.15	26.31	31.58	37.32	43.06	48.73	54.37		60.84	1 / 8			
reaction time	0.158	interval		4.66	4.69	4.88	5.16	5.27	5.74	5.74	5.67	5.64	6.47			14.23	16.17	17.05
		velocity	6.50	7.51	7.46	7.17	6.78	6.64	6.10	6.10	6.17	6.21	6.18	6.57		7.38	6.49	6.16
H1 lead leg		strides		16	16	17	17	17	19	19	19	19		159				

2020 Michitaka Kinami Memorial (Osaka, JPN)

FINAL

date 24-Oct-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sekimoto, Moeka (JPN) (200		time	6.64	11.03	15.48	19.99	24.62		29.60	34.73	39.92	45.38	51.08		58.09	3 / 1			
reaction time		interval		4.39	4.45	4.51	4.63		4.98	5.13	5.19	5.46	5.70	7.01			13.35	14.74	16.35
		velocity	6.78	7.97	7.87	7.76	7.56		7.03	6.82	6.74	6.41	6.14	5.71	6.89		7.87	7.12	6.42
H1 lead leg		strides		15	15	15	15		16	16	17	17	17		143				
Koyama, Kana (JPN) (1998)		time	6.81	11.16	15.63	20.25	25.09		30.30	35.59	40.89	46.48	52.17		58.65	4 / 2			
reaction time		interval		4.35	4.47	4.62	4.84		5.21	5.29	5.30	5.59	5.69	6.48			13.44	15.34	16.58
		velocity	6.61	8.05	7.83	7.58	7.23		6.72	6.62	6.60	6.26	6.15	6.17	6.82		7.81	6.84	6.33
H1 lead leg		strides		15	15	15	16		16	17	17	17	17		145				
Utsunomiya, Eri (JPN) (1993)		time	6.61	11.01	15.48	20.09	24.92		30.15	35.52	41.01	46.66	52.39		59.32	5 / 3			
reaction time		interval		4.40	4.47	4.61	4.83		5.23	5.37	5.49	5.65	5.73	6.93			13.48	15.43	16.87
		velocity	6.81	7.95	7.83	7.59	7.25		6.69	6.52	6.38	6.19	6.11	5.77	6.74		7.79	6.80	6.22
H1 lead leg		strides		15	15	15	15		16	16	17	17	17		143				

B FINAL

date 24-Oct-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kawabata, Szuka (JPN) (199		time	6.64	10.99	15.58	20.30	25.26		30.53	35.82	41.11	46.93	52.97		59.45	7 / 1			
reaction time		interval		4.35	4.59	4.72	4.96		5.27	5.29	5.29	5.82	6.04	6.48			13.66	15.52	17.15
		velocity	6.78	8.05	7.63	7.42	7.06		6.64	6.62	6.62	6.01	5.79	6.17	6.73		7.69	6.77	6.12
H1 lead leg		strides		15	16	16	17		17	17	17	19	19		153				
Saito, Mayu (JPN) (1995)		time	6.62	11.03	15.57	20.39	25.41		30.81	36.47	41.86	47.61	53.45		59.97	4 / 2			
reaction time		interval		4.41	4.54	4.82	5.02		5.40	5.66	5.39	5.75	5.84	6.52			13.77	16.08	16.98
		velocity	6.80	7.94	7.71	7.26	6.97		6.48	6.18	6.49	6.09	5.99	6.13	6.67		7.63	6.53	6.18
H1 lead leg		strides		16	16	17	17		17	18	18	19	19		157				
Yokota, Karen (JPN) (1999)		time	6.79	11.36	16.05	20.94	25.96		31.20	36.49	41.89	47.65	53.69		60.50	3 / 6			
reaction time		interval		4.57	4.69	4.89	5.02		5.24	5.29	5.40	5.76	6.04	6.81			14.15	15.55	17.20
		velocity	6.63	7.66	7.46	7.16	6.97		6.68	6.62	6.48	6.08	5.79	5.87	6.61		7.42	6.75	6.10
H1 lead leg		strides		16	16	17	17		17	17	17	17	19		153				

C FINAL

date 24-Oct-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tsuha, Aiki (JPN) (2000)		time	6.72	11.28	15.97	21.14	26.38		31.51	36.67	42.03	47.73	53.40		59.94	6 / 1			
reaction time		interval		4.56	4.69	5.17	5.24		5.13	5.16	5.36	5.70	5.67	6.54			14.42	15.53	16.73
		velocity	6.70	7.68	7.46	6.77	6.68		6.82	6.78	6.53	6.14	6.17	6.12	6.67		7.28	6.76	6.28
H1 lead leg		strides		17	17	17	17		17	17	17	19	19		157				
Kuki, Yurie (JPN) (1993)		time	6.82	11.33	15.90	20.87	26.29		31.65	36.99	42.38	48.03	53.80		60.75	3 / 2			
reaction time		interval		4.51	4.57	4.97	5.42		5.36	5.34	5.39	5.65	5.77	6.95			14.05	16.12	16.81
		velocity	6.60	7.76	7.66	7.04	6.46		6.53	6.55	6.49	6.19	6.07	5.76	6.58		7.47	6.51	6.25
H1 lead leg		strides		15	15	16	17		18	17	17	17	17		149				

2020 Japanese National Championships (Niigata, JPN)

FINAL

date 03-Oct-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ibrahim, Ayesya (JPN) (1998)		time	6.59	10.79	15.12	19.60	24.24		29.11	34.05	39.24	44.66	50.13		56.50	6 / 1			
reaction time	0.220	interval		4.20	4.33	4.48	4.64		4.87	4.94	5.19	5.42	5.47	6.37	PB		13.01	14.45	16.08

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	6.83	8.33	8.08	7.81	7.54	7.19	7.09	6.74	6.46	6.40	6.28	7.08		8.07	7.27	6.53
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	16	16	20	179				
Utsunomiya, Eri (JPN) (1993)		time	6.61	10.98	15.52	20.15	24.91	29.90	34.93	40.17	45.53	50.90		57.09	9 / 2			
reaction time	0.169	interval		4.37	4.54	4.63	4.76	4.99	5.03	5.24	5.36	5.37	6.19			13.54	14.78	15.97
		velocity	6.81	8.01	7.71	7.56	7.35	7.01	6.96	6.68	6.53	6.52	6.46	7.01		7.75	7.10	6.57
H1 lead leg	R	strides	23	15	15	15	15	16	16	17	17	17	21	187				
Ito, Akiko (JPN) (1995)		time	6.52	10.86	15.37	20.00	24.77	29.75	34.72	40.02	45.46	50.92		57.34	7 / 3			
reaction time	0.147	interval		4.34	4.51	4.63	4.77	4.98	4.97	5.30	5.44	5.46	6.42			13.48	14.72	16.20
		velocity	6.90	8.06	7.76	7.56	7.34	7.03	7.04	6.60	6.43	6.41	6.23	6.98		7.79	7.13	6.48
H1 lead leg	L	strides	23	15	15	16	16	16	16	17	17	17	21.2	189.2				
Yamamoto, Ami (JPN) (2002)		time	6.57	11.01	15.53	20.14	24.91	29.90	34.97	40.21	45.63	51.12		57.43	5 / 4			
reaction time	0.156	interval		4.44	4.52	4.61	4.77	4.99	5.07	5.24	5.42	5.49	6.31	PB		13.57	14.83	16.15
		velocity	6.85	7.88	7.74	7.59	7.34	7.01	6.90	6.68	6.46	6.38	6.34	6.97		7.74	7.08	6.50
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	18	18	22	197				
Koyama, Kana (JPN) (1998)		time	6.74	11.16	15.72	20.42	25.28	30.18	35.32	40.56	45.91	51.32		57.44	4 / 5			
reaction time	0.158	interval		4.42	4.56	4.70	4.86	4.90	5.14	5.24	5.35	5.41	6.12	PB		13.68	14.90	16.00
		velocity	6.68	7.92	7.68	7.45	7.20	7.14	6.81	6.68	6.54	6.47	6.54	6.96		7.68	7.05	6.56
H1 lead leg	L	strides	22	15	15	15	16	16	17	17	17	17	21	188				
Sekimoto, Moeka (JPN) (200		time	6.76	11.24	15.83	20.55	25.41	30.45	35.49	40.69	45.95	51.38		57.89	3 / 6			
reaction time	0.200	interval		4.48	4.59	4.72	4.86	5.04	5.04	5.20	5.26	5.43	6.51			13.79	14.94	15.89
		velocity	6.66	7.81	7.63	7.42	7.20	6.94	6.94	6.73	6.65	6.45	6.14	6.91		7.61	7.03	6.61
H1 lead leg	R	strides	22	15	15	15	15	16	16	17	17	17	21.2	186.2				
Tsugawa, Rui (JPN) (2001)		time	6.94	11.59	16.35	21.19	26.18	31.20	36.25	41.37	46.66	52.00		58.21	8 / 7			
reaction time	0.184	interval		4.65	4.76	4.84	4.99	5.02	5.05	5.12	5.29	5.34	6.21			14.25	15.06	15.75
		velocity	6.48	7.53	7.35	7.23	7.01	6.97	6.93	6.84	6.62	6.55	6.44	6.87		7.37	6.97	6.67
H1 lead leg	L	strides	23	17	17	17	17	17	17	17	17	17	21.2	197.2				
Kawamura, Yuka (JPN) (2001		time	6.96	11.51	16.18	20.99	25.84	30.85	36.00	41.29	46.68	52.17		58.38	2 / 8			
reaction time	0.212	interval		4.55	4.67	4.81	4.85	5.01	5.15	5.29	5.39	5.49	6.21	PB		14.03	15.01	16.17
		velocity	6.47	7.69	7.49	7.28	7.22	6.99	6.80	6.62	6.49	6.38	6.44	6.85		7.48	7.00	6.49
H1 lead leg	R	strides	23	16	16	16	16	17	17	17	17	17	21	193				

2020 All Japan Corporate Championships (Kumagaya, JPN)

FINAL date 20-Sep-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Utsunomiya, Eri (JPN) (1993)		time	6.76	11.14	15.67	20.35	25.31		30.41	35.67	41.04	46.40	51.85		58.12	6 / 1			
reaction time	0.260	interval		4.38	4.53	4.68	4.96		5.10	5.26	5.37	5.36	5.45	6.27			13.59	15.32	16.18
		velocity	6.66	7.99	7.73	7.48	7.06		6.86	6.65	6.52	6.53	6.42	6.38	6.88		7.73	6.85	6.49
H1 lead leg		strides		15	15	15	16		16	17	17	17	17		145				
Ito, Akiko (JPN) (1995)		time	6.74	11.13	15.75	20.59	25.53		30.61	35.74	41.17	46.65	52.29		59.04	5 / 2			
reaction time	0.205	interval		4.39	4.62	4.84	4.94		5.08	5.13	5.43	5.48	5.64	6.75			13.85	15.15	16.55
		velocity	6.68	7.97	7.58	7.23	7.09		6.89	6.82	6.45	6.39	6.21	5.93	6.78		7.58	6.93	6.34
H1 lead leg		strides		15	15	16	16		16	16	17	17	17		145				
Aoki, Sayaka (JPN) (1986)		time	6.97	11.70	16.52	21.49	26.53		31.68	36.92	42.29	47.75	53.40		59.81	3 / 3			
reaction time	0.252	interval		4.73	4.82	4.97	5.04		5.15	5.24	5.37	5.46	5.65	6.41			14.52	15.43	16.48
		velocity	6.46	7.40	7.26	7.04	6.94		6.80	6.68	6.52	6.41	6.19	6.24	6.69		7.23	6.80	6.37
H1 lead leg		strides		16	16	17	17		17	17	17	17	17		151				
Kuki, Yurie (JPN) (1993)		time	6.97	11.54	16.30	21.17	26.29		31.43	36.79	42.28	47.80	53.40		59.94	7 / 4			
reaction time	0.192	interval		4.57	4.76	4.87	5.12		5.14	5.36	5.49	5.52	5.60	6.54			14.20	15.62	16.61
		velocity	6.46	7.66	7.35	7.19	6.84		6.81	6.53	6.38	6.34	6.25	6.12	6.67		7.39	6.72	6.32
H1 lead leg		strides		15	15	15	16		16	17	17	17	17		145				
Kawabata, Szuka (JPN) (1993		time	6.76	11.18	15.90	20.72	25.73		30.88	36.19	41.84	47.58	53.50		59.98	2 / 5			
reaction time	0.198	interval		4.42	4.72	4.82	5.01		5.15	5.31	5.65	5.74	5.92	6.48			13.96	15.47	17.31
		velocity	6.66	7.92	7.42	7.26	6.99		6.80	6.59	6.19	6.10	5.91	6.17	6.67		7.52	6.79	6.07
H1 lead leg		strides		15	16	16	17		17	17	18	18	19		153				
Minamisawa, Akane (JPN) (1		time	7.16	12.00	16.87	21.82	26.83		32.03	37.52	43.03	48.58	54.29		60.69	4 / 6			
reaction time	0.243	interval		4.84	4.87	4.95	5.01		5.20	5.49	5.51	5.55	5.71	6.40			14.66	15.70	16.77
		velocity	6.28	7.23	7.19	7.07	6.99		6.73	6.38	6.35	6.31	6.13	6.25	6.59		7.16	6.69	6.26
H1 lead leg		strides		16	16	16	16		16	17	17	17	18		149				
Saito, Mayu (JPN) (1995)		time	6.59	10.94	15.45	20.22	25.26		30.53	36.14	42.04	48.30	54.70		62.14	8 / 7			
reaction time	0.217	interval		4.35	4.51	4.77	5.04		5.27	5.61	5.90	6.26	6.40	7.44			13.63	15.92	18.56
		velocity	6.83	8.05	7.76	7.34	6.94		6.64	6.24	5.93	5.59	5.47	5.38	6.44		7.70	6.60	5.66
H1 lead leg		strides		16	16	17	17		17	18	18	19	19		157				

2020 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

FINAL date 17-Sep-20

Henson (2020) - Athlete First: 2020 year end hurdle report

H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Bol, Femke (NED) (2000)		time	6.40	10.52	14.68	19.00	23.48	25.4	28.08	32.80	37.72	42.84	48.04		53.90	5 / 1			
reaction time	0.178	interval		4.12	4.16	4.32	4.48		4.60	4.72	4.92	5.12	5.20	5.86			12.60	13.80	15.24
		velocity	7.03	8.50	8.41	8.10	7.81	7.87	7.61	7.42	7.11	6.84	6.73	6.83	7.42		8.33	7.61	6.89
H1 lead leg	L	strides	21	15	15	15	15		15	15	15	16	16	18.5	176.5				
Ryzhykova, Anna (UKR) (19		time	6.44	10.56	14.76	19.12	23.68	25.7	28.44	33.32	38.32	43.36	48.52		54.54	6 / 2			
reaction time	0.157	interval		4.12	4.20	4.36	4.56		4.76	4.88	5.00	5.04	5.16	6.02			12.68	14.20	15.20
		velocity	6.99	8.50	8.33	8.03	7.68	7.78	7.35	7.17	7.00	6.94	6.78	6.64	7.33		8.28	7.39	6.91
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19.7	172.7				
Tkachuk, Viktoriya (UKR) (19		time	6.52	10.76	15.16	19.60	24.16	26.2	28.76	33.64	38.68	43.80	49.04		54.93	9 / 3			
reaction time	0.270	interval		4.24	4.40	4.44	4.56		4.60	4.88	5.04	5.12	5.24	5.89	PB		13.08	14.04	15.40
		velocity	6.90	8.25	7.95	7.88	7.68	7.63	7.61	7.17	6.94	6.84	6.68	6.79	7.28		8.03	7.48	6.82
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	16	19.7	180.7				
Petersen, Sara Slott (DEN) (1		time	6.36	10.52	14.72	19.08		25.6	28.24	33.12	38.24	43.56	48.96		55.20	3 / 4			
reaction time	0.114	interval		4.16	4.20	4.36			9.16	4.88	5.12	5.32	5.40	6.24			12.72	14.04	15.84
		velocity	7.08	8.41	8.33	8.03		7.81	7.64	7.17	6.84	6.58	6.48	6.41	7.25		8.25	7.48	6.63
H1 lead leg	R	strides	22	15	15	15	15			16	16	17	17	21	169				
Iuel, Amalie (NOR) (1994)		time	6.40	10.64	14.96	19.36	23.88	25.9	28.52	33.28	38.44	43.72	49.16		55.27	8 / 5			
reaction time	0.143	interval		4.24	4.32	4.40	4.52		4.64	4.76	5.16	5.28	5.44	6.11			12.96	13.92	15.88
		velocity	7.03	8.25	8.10	7.95	7.74	7.72	7.54	7.35	6.78	6.63	6.43	6.55	7.24		8.10	7.54	6.61
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	16	19	180				
Knight, Jessie (GBR) (1994)		time	6.40	10.72	15.16	19.60		26.2	28.88	33.84	38.92	44.16	49.48		55.58	2 / 6			
reaction time	0.164	interval		4.32	4.44	4.44			9.28	4.96	5.08	5.24	5.32	6.10			13.20	14.24	15.64
		velocity	7.03	8.10	7.88	7.88		7.63	7.54	7.06	6.89	6.68	6.58	6.56	7.20		7.95	7.37	6.71
H1 lead leg	R	strides	23	15	15	15				15	15	16	16	19.2	149.2				
Zapletalová, Emma (SVK) (2(		time	6.48	10.72	15.00	19.40	23.96	26.0	28.60	33.52	38.68	44.16	49.72		56.02	7 / 7			
reaction time	0.135	interval		4.24	4.28	4.40	4.56		4.64	4.92	5.16	5.48	5.56	6.30			12.92	14.12	16.20
		velocity	6.94	8.25	8.18	7.95	7.68	7.69	7.54	7.11	6.78	6.39	6.29	6.35	7.14		8.13	7.44	6.48
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	19.7	183.7				
Folorunso, Ayomide (ITA) (1		time	6.60	10.96	15.36	19.84		26.5	29.08	33.84	38.72	43.92	50.08		56.58	4 / 8			
reaction time	0.187	interval		4.36	4.40	4.48			9.24	4.76	4.88	5.20	6.16	6.50			13.24	14.00	16.24
		velocity	6.82	8.03	7.95	7.81		7.55	7.58	7.35	7.17	6.73	5.68	6.15	7.07		7.93	7.50	6.47
H1 lead leg	L	strides	23	16	16	16				15	15	15	19	21	156				

2020 Chinese National Championships (Shaoxing, CHN)

FINAL date 17-Sep-20

CAA Hurdle Development (2020)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.46	10.79	15.17	19.67	24.25		29.04	34.08	39.37	44.92	50.37		56.77	4 / 1			
reaction time		interval		4.33	4.38	4.50	4.58		4.79	5.04	5.29	5.55	5.45	6.40			13.21	14.41	16.29
		velocity	6.97	8.08	7.99	7.78	7.64		7.31	6.94	6.62	6.31	6.42	6.25	7.05		7.95	7.29	6.45
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	18	21.5	197.5				
Lu Zhangwei (CHN) (2001)		time	6.54	11.00	15.42	20.12	24.83		29.75	34.83	40.04	45.58	51.29		57.89	3 / 2			
reaction time		interval		4.46	4.42	4.70	4.71		4.92	5.08	5.21	5.54	5.71	6.60			13.58	14.71	16.46
		velocity	6.88	7.85	7.92	7.45	7.43		7.11	6.89	6.72	6.32	6.13	6.06	6.91		7.73	7.14	6.38
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	18	18	22	197				
Huang Yan (CHN) (1996)		time	6.62	11.00	15.42	20.12	24.92		29.87	35.08	40.46	46.08	51.92		58.68	6 / 3			
reaction time		interval		4.38	4.42	4.70	4.80		4.95	5.21	5.38	5.62	5.84	6.76			13.50	14.96	16.84
		velocity	6.80	7.99	7.92	7.45	7.29		7.07	6.72	6.51	6.23	5.99	5.92	6.82		7.78	7.02	6.24
H1 lead leg	R	strides	24		16	17			17	18	18	19	19	23	171				
Ou Ying (CHN) (2001)		time	6.87	11.46	16.04	20.71	25.46		30.54	35.79	41.17	46.71	52.38		58.80	5 / 4			
reaction time		interval		4.59	4.58	4.67	4.75		5.08	5.25	5.38	5.54	5.67	6.42	PB		13.84	15.08	16.59
		velocity	6.55	7.63	7.64	7.49	7.37		6.89	6.67	6.51	6.32	6.17	6.23	6.80		7.59	6.96	6.33
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	19	21	201				
Wang Hongyan (CHN) (1998		time		11.42	16.08	20.83	25.71		30.79	36.04	41.54	47.42	53.29		60.17	8 / 5			
reaction time		interval			4.66	4.75	4.88		5.08	5.25	5.50	5.88	5.87	6.88				15.21	17.25
		velocity		7.01	7.51	7.37	7.17		6.89	6.67	6.36	5.95	5.96	5.81	6.65			6.90	6.09
H1 lead leg		strides			17				17	18	18		19	23	112				
Chen Liying (CHN) (1994)		time	6.75	11.25	16.00	20.83			30.96	36.33	42.21	48.12	54.25		61.14	2 / 6			
reaction time		interval		4.50	4.75	4.83			30.96	5.37	5.88	5.91	6.13	6.89			14.08	15.50	17.92
		velocity	6.67	7.78	7.37	7.25			1.13	6.52	5.95	5.92	5.71	5.81	6.54		7.46	6.77	5.86
H1 lead leg	R	strides	14		16					18	19	18	19	22	126				
Lan Tianlu (CHN) (1999)		time		10.92	15.33	19.87	24.54		29.54	34.83	40.50	46.75	53.54		61.76	7 / 7			
reaction time		interval			4.41	4.54	4.67		5.00	5.29	5.67	6.25	6.79	8.22				14.96	18.71
		velocity		7.33	7.94	7.71	7.49		7.00	6.62	6.17	5.60	5.15	4.87	6.48			7.02	5.61
H1 lead leg		strides			16				17	17	18	19	20	24	131				
Hu Lihong (CHN) (1999)		time	6.92		16.46					37.54	43.25	49.25	55.67		63.09	1 / 8			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time		interval			9.54					21.08	5.71	6.00	6.42	7.42					18.13
		velocity	6.50		7.34					6.64	6.13	5.83	5.45	5.39	6.34				5.79
H1 lead leg	L	strides	24								17	17	18	21	97				

2020 Galà dei Castelli (Bellinzona, SUI) (TV Analysis)

FINAL date 15-Sep-20

Henson (2020) - Athlete First: 2020 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.60	10.76	15.00	19.32	23.72		28.32	33.08	38.04	43.28	48.56		54.33	3 / 1			
reaction time		interval		4.16	4.24	4.32	4.40		4.60	4.76	4.96	5.24	5.28	5.77			12.72	13.76	15.48
		velocity	6.82	8.41	8.25	8.10	7.95		7.61	7.35	7.06	6.68	6.63	6.93	7.36		8.25	7.63	6.78
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Sprunger, Leá (SUI) (1990)		time	6.48	10.80	15.16	19.56	24.08		28.80	33.60	38.68	43.72	49.00		54.98	5 / 2			
reaction time		interval		4.32	4.36	4.40	4.52		4.72	4.80	5.08	5.04	5.28	5.98			13.08	14.04	15.40
		velocity	6.94	8.10	8.03	7.95	7.74		7.42	7.29	6.89	6.94	6.63	6.69	7.28		8.03	7.48	6.82
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15	18.5	170.5				
Tkachuk, Viktoriya (UKR) (19		time	6.44	10.76	15.32	19.80	24.32		29.08	33.88	38.96	44.08	49.28		55.15	4 / 3			
reaction time		interval		4.32	4.56	4.48	4.52		4.76	4.80	5.08	5.12	5.20	5.87			13.36	14.08	15.40
		velocity	6.99	8.10	7.68	7.81	7.74		7.35	7.29	6.89	6.84	6.73	6.81	7.25		7.86	7.46	6.82
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16	19.5	179.5				
Giger, Yasmin (SUI) (1999)		time	6.60	10.92	15.36				29.68	34.72		45.20	50.52		56.42	2 / 4			
reaction time		interval		4.32	4.44				14.32	5.04		10.48	5.32	5.90					15.80
		velocity	6.82	8.10	7.88				7.33	6.94		6.68	6.58	6.78	7.09				6.65
H1 lead leg	R	strides	23	15	15					16			17	20.2	106.2				
Kloster, Line (NOR) (1990)		time	6.36	10.60	15.04	19.52	24.20		29.00	34.04		44.80	50.32		56.71	6 / 5			
reaction time		interval		4.24	4.44	4.48	4.68		4.80	5.04		10.76	5.52	6.39			13.16	14.52	16.28
		velocity	7.08	8.25	7.88	7.81	7.48		7.29	6.94		6.51	6.34	6.26	7.05		7.98	7.23	6.45
H1 lead leg	R	strides	22	15	15	15	15		16	16			17	20	151				
Cavalleri, Valentina (ITA) (19		time	6.76	11.20	15.88				30.42	35.32		46.08	51.60		57.80	1 / 6			
reaction time		interval		4.44	4.68				14.54	4.90		10.76	5.52	6.20					16.28
		velocity	6.66	7.88	7.48				7.22	7.14		6.51	6.34	6.45	6.92				6.45
H1 lead leg	L	strides	23	16	16					16			17	20.5	108.5				

2020 Bauhaus Galan (Stockholm, SWE) (TV Analysis)

FINAL date 23-Aug-20

Henson (2020) - Athlete First: 2020 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.57		15.20	19.57	24.10	26.0	28.77	33.57	38.53	43.77	48.90		54.68	4 / 1			
reaction time	0.226	interval			8.63	4.37	4.53		4.67	4.80	4.96	5.24	5.13	5.78			13.00	14.00	15.33
		velocity	6.85		8.11	8.01	7.73	7.69	7.49	7.29	7.06	6.68	6.82	6.92	7.32		8.08	7.50	6.85
H1 lead leg	L	strides	21	15		15	15		15	15	15	16	16	18.5	161.5				
Ryzhykova, Anna (UKR) (19		time	6.50	10.67	15.00	19.37	24.00	26.0	28.87	33.77	38.63	43.80	49.10		55.19	2 / 2			
reaction time	0.156	interval		4.17	4.33	4.37	4.63		4.87	4.90	4.86	5.17	5.30	6.09			12.87	14.40	15.33
		velocity	6.92	8.39	8.08	8.01	7.56	7.69	7.19	7.14	7.20	6.77	6.60	6.57	7.25		8.16	7.29	6.85
H1 lead leg	R	strides	21	14		14	15		15	15	16	15	16	19.5	160.5				
Iuel, Amalie (NOR) (1994)		time	6.47	10.67	15.03	19.53	24.17	26.2	28.97	33.93	39.07	44.33	49.63		55.92	8 / 3			
reaction time	0.162	interval		4.20	4.36	4.50	4.64		4.80	4.96	5.14	5.26	5.30	6.29			13.06	14.40	15.70
		velocity	6.96	8.33	8.03	7.78	7.54	7.63	7.29	7.06	6.81	6.65	6.60	6.36	7.15		8.04	7.29	6.69
H1 lead leg	L	strides	22	15		15	15		15	15	16	16	16	19	164				
Petersen, Sara Slott (DEN) (1		time	6.50		15.17	19.57	24.07	26.1	28.87	33.80	38.87	44.27	49.83		56.30	5 / 4			
reaction time	0.209	interval			8.67	4.40	4.50		4.80	4.93	5.07	5.40	5.56	6.47			13.07	14.23	16.03
		velocity	6.92		8.07	7.95	7.78	7.66	7.29	7.10	6.90	6.48	6.29	6.18	7.10		8.03	7.38	6.55
H1 lead leg	R	strides	21	15		15	15		16	16	17	18	18	21.5	172.5				
Watson, Sage (CAN) (1994)		time	6.40	10.67	15.00	19.40	23.97	26.0	28.87	33.93	39.03	44.47	50.07		56.31	3 / 5			
reaction time	0.208	interval		4.27	4.33	4.40	4.57		4.90	5.06	5.10	5.44	5.60	6.24			13.00	14.53	16.14
		velocity	7.03	8.20	8.08	7.95	7.66	7.69	7.14	6.92	6.86	6.43	6.25	6.41	7.10		8.08	7.23	6.51
H1 lead leg	R	strides	21	15		15	15		16	16	16	17	17	20	168				
Sprunger, Leá (SUI) (1990)		time	6.50	10.87	15.27	19.77	24.43	26.3	29.20	34.20	39.27	44.73	50.23		56.40	6 / 6			
reaction time	0.151	interval		4.37	4.40	4.50	4.66		4.77	5.00	5.07	5.46	5.50	6.17			13.27	14.43	16.03
		velocity	6.92	8.01	7.95	7.78	7.51	7.60	7.34	7.00	6.90	6.41	6.36	6.48	7.09		7.91	7.28	6.55
H1 lead leg	R	strides	20	14	14	14	14		15	15	15	16	16	19	172				
Hejnová, Zuzana (CZE) (198		time	6.70	11.03	15.40	19.87	24.50	26.5	29.37	34.33	39.33	44.73	50.23		56.75	7 / 7			
reaction time	0.151	interval		4.33	4.37	4.47	4.63		4.87	4.96	5.00	5.40	5.50	6.52			13.17	14.46	15.90
		velocity	6.72	8.08	8.01	7.83	7.56	7.55	7.19	7.06	7.00	6.48	6.36	6.13	7.05		7.97	7.26	6.60
H1 lead leg	R	strides	21	15	15	15	15		16	16	16	17	17	20.5	183.5				
Palmqvist, Hanna (SWE) (19		time	6.23	10.47	14.80	19.37	24.23	26.4	29.30		39.77	45.47	51.47		58.56	1 / 8			
reaction time	0.168	interval		4.24	4.33	4.57	4.86		5.07		10.47	5.70	6.00	7.09			13.14		
		velocity	7.22	8.25	8.08	7.66	7.20	7.58	6.90		6.69	6.14	5.83	5.64	6.83		7.99		
H1 lead leg	L	strides	21	15		15	16		16			18	18	22.2	141.2				

2020 Seiko Golden Grand Prix (Tokyo, JPN)

FINAL date 23-Aug-20

Sugimoto (2020) - race pattern analysis of japan's top male and female 400m hurdlers- 2020 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sekimoto, Moeka (JPN) (200		time	6.62	11.01	15.50	20.14	24.89		29.68	34.65	39.81	45.20	50.80		57.51	7 / 1			
reaction time	0.174	interval		4.39	4.49	4.64	4.75		4.79	4.97	5.16	5.39	5.60	6.71			13.52	14.51	16.15
		velocity	6.80	7.97	7.80	7.54	7.37		7.31	7.04	6.78	6.49	6.25	5.96	6.96		7.77	7.24	6.50
H1 lead leg		strides		15	15	15	15		15	16	16	17	17		141				
Ibrahim, Ayesya (JPN) (1998)		time	6.66	10.94	15.30	19.87	24.67		29.65	34.75	40.14	45.68	51.47		58.11	4 / 2			
reaction time	0.192	interval		4.28	4.36	4.57	4.80		4.98	5.10	5.39	5.54	5.79	6.64			13.21	14.88	16.72
		velocity	6.76	8.18	8.03	7.66	7.29		7.03	6.86	6.49	6.32	6.04	6.02	6.88		7.95	7.06	6.28
H1 lead leg		strides		15	15	15	15		15	15	16	16	17		139				
Koyama, Kana (JPN) (1998)		time	6.74	11.24	15.85	20.60	25.49		30.60	35.75	41.07	46.48	52.00		58.14	8 / 3			
reaction time	0.146	interval		4.50	4.61	4.75	4.89		5.11	5.15	5.32	5.41	5.52	6.14			13.86	15.15	16.25
		velocity	6.68	7.78	7.59	7.37	7.16		6.85	6.80	6.58	6.47	6.34	6.51	6.88		7.58	6.93	6.46
H1 lead leg		strides		15	15	15	15		16	16	17	17	17		143				
Ito, Akiko (JPN) (1995)		time	6.57	10.88	15.42	20.12	25.03		30.01	35.00	40.34	45.95	51.74		58.56	5 / 4			
reaction time	0.136	interval		4.31	4.54	4.70	4.91		4.98	4.99	5.34	5.61	5.79	6.82			13.55	14.88	16.74
		velocity	6.85	8.12	7.71	7.45	7.13		7.03	7.01	6.55	6.24	6.04	5.87	6.83		7.75	7.06	6.27
H1 lead leg		strides		15	15	16	16		16	16	17	17	17		145				
Utsunomiya, Eri (JPN) (1993)		time	6.62	11.03	15.60	20.30	25.29		30.31	35.45	40.97	47.01	53.12		59.86	6 / 5			
reaction time	0.190	interval		4.41	4.57	4.70	4.99		5.02	5.14	5.52	6.04	6.11	6.74			13.68	15.15	17.67
		velocity	6.80	7.94	7.66	7.45	7.01		6.97	6.81	6.34	5.79	5.73	5.93	6.68		7.68	6.93	5.94
H1 lead leg		strides		15	15	15	16		16	16	17	20	19		149				
Shibata, Haruka (JPN) (1991)		time	6.91	11.54	16.30	21.37	26.59		31.82	37.04	42.43	47.96	53.72		60.15	9 / 6			
reaction time	0.161	interval		4.63	4.76	5.07	5.22		5.23	5.22	5.39	5.53	5.76	6.43			14.46	15.67	16.68
		velocity	6.51	7.56	7.35	6.90	6.70		6.69	6.70	6.49	6.33	6.08	6.22	6.65		7.26	6.70	6.29
H1 lead leg		strides		16	16	17	17		17	17	17	17	19		153				
Mizuguchi, Moe (JPN) (2002)		time	6.86	11.53	16.37	21.10	25.99		31.15	36.45	42.09	47.98	53.90		60.50	2 / 7			
reaction time	0.156	interval		4.67	4.84	4.73	4.89		5.16	5.30	5.64	5.89	5.92	6.60			14.24	15.35	17.45
		velocity	6.56	7.49	7.23	7.40	7.16		6.78	6.60	6.21	5.94	5.91	6.06	6.61		7.37	6.84	6.02
H1 lead leg		strides		16	17	16	17		17	17	18	18	18		154				
Beppu, Riho (JPN) (2003)		time	6.86	11.51	16.33	21.27	26.31		31.50	37.02	42.59	48.40	54.47		61.24	1 / 8			
reaction time	0.132	interval		4.65	4.82	4.94	5.04		5.19	5.52	5.57	5.81	6.07	6.77	**PB**		14.41	15.75	17.45
		velocity	6.56	7.53	7.26	7.09	6.94		6.74	6.34	6.28	6.02	5.77	5.91	6.53		7.29	6.67	6.02
H1 lead leg		strides		16	16	17	17		17	18	18	19	19		157				
Oshiden, Moe (JPN) (1993)		time	6.92	11.68	16.60	21.52	26.61		31.87	37.30	42.89	48.92	55.59		63.18	3 / 9			
reaction time	0.164	interval		4.76	4.92	4.92	5.09		5.26	5.43	5.59	6.03	6.67	7.59			14.60	15.78	18.29
		velocity	6.50	7.35	7.11	7.11	6.88		6.65	6.45	6.26	5.80	5.25	5.27	6.33		7.19	6.65	5.74
H1 lead leg		strides		16	16	16	16		17	17	17	18	20		153				

2020 István Gyulai Memorial (Székesfehérvár, HUN) (TV Analysis)

FINAL date 19-Aug-20

Henson (2020) - Athlete First: 2020 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bol, Femke (NED) (2000)		time	6.52	10.72	15.08	19.56	24.12		28.80	33.64	38.60	43.76	48.92		54.67	4 / 1			
reaction time	0.205	interval		4.20	4.36	4.48	4.56		4.68	4.84	4.96	5.16	5.16	5.75			13.04	14.08	15.28
		velocity	6.90	8.33	8.03	7.81	7.68		7.48	7.23	7.06	6.78	6.78	6.96	7.32		8.05	7.46	6.87
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Ryzhykova, Anna (UKR) (19		time	6.44	10.56	14.88	19.32	24.00		28.92	33.92	39.08	44.40	49.88		55.86	3 / 2			
reaction time	0.162	interval		4.12	4.32	4.44	4.68		4.92	5.00	5.16	5.32	5.48	5.98			12.88	14.60	15.96
		velocity	6.99	8.50	8.10	7.88	7.48		7.11	7.00	6.78	6.58	6.39	6.69	7.16		8.15	7.19	6.58
H1 lead leg	R	strides	22	14	14	14	15		15	15	15	16	16	19.5	175.5				
Watson, Sage (CAN) (1994)		time	6.40	10.60	14.92	19.36	23.92		28.72	33.76	39.00	44.52	50.04		56.29	5 / 3			
reaction time	0.199	interval		4.20	4.32	4.44	4.56		4.80	5.04	5.24	5.52	5.52	6.25			12.96	14.40	16.28
		velocity	7.03	8.33	8.10	7.88	7.68		7.29	6.94	6.68	6.34	6.34	6.40	7.11		8.10	7.29	6.45
H1 lead leg	R	strides	22	15	15	15	15		16	16	16	17	17	20	184				
Sprunger, Leá (SUI) (1990)		time	6.56	10.96	15.44	19.96	24.64		29.52	34.60	39.84	45.24	50.72		56.65	6 / 4			
reaction time	0.207	interval		4.40	4.48	4.52	4.68		4.88	5.08	5.24	5.40	5.48	5.93			13.40	14.64	16.12
		velocity	6.86	7.95	7.81	7.74	7.48		7.17	6.89	6.68	6.48	6.39	6.75	7.06		7.84	7.17	6.51
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	16	16		154				
Zapletalová, Emma (SVK) (2(		time	6.60			19.76	24.32		29.04	33.92	39.36	44.96	50.44		56.68	1 / 5			
reaction time	0.129	interval				13.16	4.56		4.72	4.88	5.44	5.60	5.48	6.24	**NR NUR**		13.16	14.16	16.52
		velocity	6.82			7.98	7.68		7.42	7.17	6.43	6.25	6.39	6.41	7.06		7.98	7.42	6.36
H1 lead leg	R	strides	23				15		15	15	16	17	16	20	137				
Molnár, Janka (HUN) (2001)		time	6.80			20.24	24.92		29.76	34.76	39.96	45.28	50.76		57.10	2 / 6			
reaction time	0.218	interval				13.44	4.68		4.84	5.00	5.20	5.32	5.48	6.34			13.44	14.52	16.00

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	6.62			7.81	7.48		7.23	7.00	6.73	6.58	6.39	6.31	7.01			7.81	7.23	6.56
H1 lead leg	R	strides	24				16		16	17	17	17	17		124					
Linkiewicz, Joanna (POL) (19		time	6.64	11.08	15.64	20.28	25.08		30.08	35.24	40.32	45.56			57.11	8 / 7				
reaction time	0.175	interval		4.44	4.56	4.64	4.80		5.00	5.16	5.08	5.24						13.64	14.96	
		velocity	6.78	7.88	7.68	7.54	7.29		7.00	6.78	6.89	6.68			7.00			7.70	7.02	
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17			156					
Mátó, Sára (HUN) (2000)		time	6.64	11.04	15.60	20.20	24.96		29.88	35.04	40.12	45.48			57.61	7 / 8				
reaction time	0.195	interval		4.40	4.56	4.60	4.76		4.92	5.16	5.08	5.36						13.56	14.84	
		velocity	6.78	7.95	7.68	7.61	7.35		7.11	6.78	6.89	6.53			6.94			7.74	7.08	
H1 lead leg	L	strides	22	15	15	15	16		16	16	16	17			148					

2020 Shimane High School Championships (Honshu, JPN)

FINAL date 12-Jul-20

Shimizu (2020) - shimane high school championships 2020 - biomechanics data analysis

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
松本 春佳	time	7.38	12.72	18.30	24.00	29.92		35.85	41.92	48.47	55.13	61.62		68.37	8 / 1			
reaction time	interval		5.34	5.58	5.70	5.92		5.93	6.07	6.55	6.66	6.49	6.75			16.62	17.92	19.70
	velocity	6.10	6.55	6.27	6.14	5.91		5.90	5.77	5.34	5.26	5.39	5.93	5.85		6.32	5.86	5.33
H1 lead leg	strides	26	19	19	19	19		19	19	21	21	21	23	226				
錦織 玲菜	time	7.53	12.80	18.33	24.02	29.95		35.82	41.88	48.50	55.52	62.45		69.77	9 / 2			
reaction time	interval		5.27	5.53	5.69	5.93		5.87	6.06	6.62	7.02	6.93	7.32			16.49	17.86	20.57
	velocity	5.98	6.64	6.33	6.15	5.90		5.96	5.78	5.29	4.99	5.05	5.46	5.73		6.37	5.88	5.10
H1 lead leg	strides	26	19	19	19	19		19	19	21	21	21	24	227				
神田 早紀	time	8.15	13.90	19.62	25.45	31.42		37.40	43.48	49.83	56.47	63.02		69.90	7 / 3			
reaction time	interval		5.75	5.72	5.83	5.97		5.98	6.08	6.35	6.64	6.55	6.88			17.30	18.03	19.54
	velocity	5.52	6.09	6.12	6.00	5.86		5.85	5.76	5.51	5.27	5.34	5.81	5.72		6.07	5.82	5.37
H1 lead leg	strides	28	20	20	20	21		21	20	21	22	22	26.5	241.5				
上木 杏香音	time	7.38	12.58	17.93	23.50	29.37		35.42	41.77	48.43	55.13	61.82		69.97	5 / 4			
reaction time	interval		5.20	5.35	5.57	5.87		6.05	6.35	6.66	6.70	6.69	8.15			16.12	18.27	20.05
	velocity	6.10	6.73	6.54	6.28	5.96		5.79	5.51	5.26	5.22	5.23	4.91	5.72		6.51	5.75	5.24
H1 lead leg	strides	26	19	19	19	19		19	21	21	21	21	25.5	230.5				

2020 Inspiration Games (Zürich, SUI) (TV Analysis) (300m Hurdles)

FINAL date 09-Jul-20

Henson (2020) - Athlete First: 2020 year end hurdle report

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Moline, Georganne (USA) (1	time	6.20	10.10	14.20	18.46	22.86		27.50	32.46					39.08	3 / 1			
reaction time	interval		3.90	4.10	4.26	4.40		4.64	4.96				6.62	*(Walnut, CA)*		12.76	14.00	
	velocity	8.06	8.97	8.54	8.22	7.95		7.54	7.06				6.04	7.68		8.23	7.50	
H1 lead leg R	strides	22	15	15	15	15		16	16				22.5	136.5				
Sprunger, Leá (SUI) (1990)	time	6.36	10.56	14.80	19.23	23.80		28.53	33.33					39.25	5 / 2			
reaction time	interval		4.20	4.24	4.43	4.57		4.73	4.80				5.92	*(Zürich, SUI)*		13.24	14.10	
	velocity	7.86	8.33	8.25	7.90	7.66		7.40	7.29				6.76	7.64		7.93	7.45	
H1 lead leg R	strides	21	14	14	14	14		15	15				20	127				
Hejnová, Zuzana (CZE) (198	time	7.33	11.63	16.03	20.53	25.30		30.20	35.13					40.97	3 / 3			
reaction time	interval		4.30	4.40	4.50	4.77		4.90	4.93				5.84	*(Papendal, NED)*		13.67	14.60	
	velocity	6.82	8.14	7.95	7.78	7.34		7.14	7.10				6.85	7.32		7.68	7.19	
H1 lead leg R	strides	25	15	15	15	16		16	16				20	138				

2020 Impossible Games (Oslo, NOR) (TV Analysis) (300m Hurdles)

FINAL date 11-Jun-20

Henson (2020) - Athlete First: 2020 year end hurdle report

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Petersen, Sara Slott (DEN) (1	time	7.04	11.14	15.38	19.72	24.22		28.96	34.00					39.42	4 / 1			
reaction time 0.125	interval		4.10	4.24	4.34	4.50		4.74	5.04				5.42			13.08	14.28	
	velocity	7.10	8.54	8.25	8.06	7.78		7.38	6.94				7.38	7.61		8.03	7.35	
H1 lead leg R	strides	25	15	15	15	15		15	17				20	137				
Iuel, Amalie (NOR) (1994)	time	7.00	11.08	15.45	19.89	24.42		29.09	33.90					39.44	8 / 2			
reaction time 0.137	interval		4.08	4.37	4.44	4.53		4.67	4.81				5.54			13.34	14.01	
	velocity	7.14	8.58	8.01	7.88	7.73		7.49	7.28				7.22	7.61		7.87	7.49	
H1 lead leg L	strides	25	15	15	15	15		15	15				18.7	133.7				
Sprunger, Leá (SUI) (1990)	time	6.94	11.04	15.28	19.85	24.49		29.30	34.27					39.86	6 / 3			
reaction time 0.151	interval		4.10	4.24	4.57	4.64		4.81	4.97				5.59			13.45	14.42	
	velocity	7.20	8.54	8.25	7.66	7.54		7.28	7.04				7.16	7.53		7.81	7.28	
H1 lead leg R	strides	23	13	13	14	14		15	15				18.2	125.2				

2019 National Sports Festival (Hitachinaka, JPN)

FINAL date 05-Oct-19

Enomoto (2019) - research on athlete performance and technique- 2019 data book

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sekimoto, Moeka (JPN) (200	time	6.67	10.94	15.40	19.97	24.64		29.53	34.57	39.82	45.15	50.92		57.83	5 / 1			
reaction time 0.204	interval		4.27	4.46	4.57	4.67		4.89	5.04	5.25	5.33	5.77	6.91			13.30	14.60	16.35
	velocity	6.75	8.20	7.85	7.66	7.49		7.16	6.94	6.67	6.57	6.07	5.79	6.92		7.89	7.19	6.42

H1 lead leg		strides		15	15	15	15		16	16	17	17	17		143			

Youth FINAL

date 05-Oct-19

Wamani (2023) - race analysis of men's and women's 400m hurdles in the 2022 season

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Yamamoto, Ami (JPN) (2002		time	6.71	11.19	15.82	20.54	25.38		30.35	35.44	40.61	46.03	51.53		57.77	4 / 1			
reaction time	0.211	interval		4.48	4.63	4.72	4.84		4.97	5.09	5.17	5.42	5.50	6.24	**PB**		13.83	14.90	16.09
		velocity	6.71	7.81	7.56	7.42	7.23		7.04	6.88	6.77	6.46	6.36	6.41	6.92		7.59	7.05	6.53
H1 lead leg		strides		17	17	17	17		17	17	17	18	18		155				

2019 IAAF World Championships (Doha, QAT)

Sugimoto (2019) - world championship competition performance analysis- women's hurdles

FINAL

date 04-Oct-19

Henson (2020) - Athlete First: 2019 year end hurdle report (TV Analysis)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.19	10.11	14.23	18.49	22.86		27.24	31.72	36.39	41.21	46.23		52.16	6 / 1		*Sugimoto (2019)*	
reaction time	0.200	interval		3.92	4.12	4.26	4.37		4.38	4.48	4.67	4.82	5.02	5.93	**WR**		12.30	13.23	14.51
		velocity	7.27	8.93	8.50	8.22	8.01		7.99	7.81	7.49	7.26	6.97	6.75	7.67		8.54	7.94	7.24
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
McLaughlin, Sydney (USA) (		time	6.27	10.27	14.38	18.65	22.98		27.42	31.96	36.73	41.57	46.58		52.23	4 / 2		*Henson (2020)*	
reaction time	0.161	interval		4.00	4.11	4.27	4.33		4.44	4.54	4.77	4.84	5.01	5.65	**PB**		12.38	13.31	14.62
		velocity	7.18	8.75	8.52	8.20	8.08		7.88	7.71	7.34	7.23	6.99	7.08	7.66		8.48	7.89	7.18
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	19.2	180.2				
Clayton, Rushell (JAM) (199		time	6.42	10.61	14.87	19.24	23.79		28.38	33.16	38.00	42.91	47.91		53.74	5 / 3		*Henson (2020)*	
reaction time	0.137	interval		4.19	4.26	4.37	4.55		4.59	4.78	4.84	4.91	5.00	5.83	**PB**		12.82	13.92	14.75
		velocity	7.01	8.35	8.22	8.01	7.69		7.63	7.32	7.23	7.13	7.00	6.86	7.44		8.19	7.54	7.12
H1 lead leg	L	strides	23	15	15	15	15		15	16	15	16	16	19	180				
Sprunger, Leá (SUI) (1990)		time	6.28	10.47	14.71	19.00	23.49		28.11	32.93	37.93	42.94	48.08		54.06	9 / 4		*Henson (2020)*	
reaction time	0.199	interval		4.19	4.24	4.29	4.49		4.62	4.82	5.00	5.01	5.14	5.98	**NR PB**		12.72	13.93	15.15
		velocity	7.17	8.35	8.25	8.16	7.80		7.58	7.26	7.00	6.99	6.81	6.69	7.40		8.25	7.54	6.93
H1 lead leg	R	strides	23	14	14	14	14		15	15	15	15	15	18.5	172.5				
Hejnová, Zuzana (CZE) (198		time	6.47	10.71	14.98	19.32	23.82		28.36	33.03	37.94	42.91	48.05		54.23	8 / 5		*Henson (2020)*	
reaction time	0.141	interval		4.24	4.27	4.34	4.50		4.54	4.67	4.91	4.97	5.14	6.18			12.85	13.71	15.02
		velocity	6.96	8.25	8.20	8.06	7.78		7.71	7.49	7.13	7.04	6.81	6.47	7.38		8.17	7.66	6.99
H1 lead leg	R	strides	22	15	15		15		15	15	16		16	20	149				
Spencer, Ashley (USA) (1993		time	6.44	10.71	14.98	19.35	23.82			33.03	37.87	42.97	48.08		54.45	2 / 6		*Henson (2020)*	
reaction time	0.163	interval		4.27	4.27	4.37	4.47			9.21	4.84	5.10	5.11	6.37			12.91	13.68	15.05
		velocity	6.99	8.20	8.20	8.01	7.83			7.60	7.23	6.86	6.85	6.28	7.35		8.13	7.68	6.98
H1 lead leg	L	strides	22	15	15		15				15		16	19	117				
Ryzhykova, Anna (UKR) (19		time	6.40	10.48	14.65	18.98	23.45		28.13	33.00	38.00	43.04	48.35		54.45	3 / 7		*Henson (2020)*	
reaction time	0.173	interval		4.08	4.17	4.33	4.47		4.68	4.87	5.00	5.04	5.31	6.10			12.58	14.02	15.35
		velocity	7.03	8.58	8.39	8.08	7.83		7.48	7.19	7.00	6.94	6.59	6.56	7.35		8.35	7.49	6.84
H1 lead leg	R	strides	22	14	14		14		15	15	15		16	19.2	144.2				
Watson, Sage (CAN) (1994)		time	6.27	10.48	14.75	19.12	23.66		28.26	33.06	38.07	43.24	48.61		54.82	7 / 8		*Henson (2020)*	
reaction time	0.186	interval		4.21	4.27	4.37	4.54		4.60	4.80	5.01	5.17	5.37	6.21			12.85	13.94	15.55
		velocity	7.18	8.31	8.20	8.01	7.71		7.61	7.29	6.99	6.77	6.52	6.44	7.30		8.17	7.53	6.75
H1 lead leg	R	strides	22	15	15	15	15		15	15	16		17	20	165				

Semi-Final 3 (TV A

date 02-Oct-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.30	10.41	14.71	19.00	23.48		27.99	32.69	37.60	42.57	47.74		53.81	5 / 1			
reaction time	0.170	interval		4.11	4.30	4.29	4.48		4.51	4.70	4.91	4.97	5.17	6.07			12.70	13.69	15.05
		velocity	7.14	8.52	8.14	8.16	7.81		7.76	7.45	7.13	7.04	6.77	6.59	7.43		8.27	7.67	6.98
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	18.5	178.5				
Sprunger, Leá (SUI) (1990)		time	6.37	10.47	14.75		23.55		28.25	33.10	38.10	43.21	48.45		54.52	6 / 2			
reaction time	0.191	interval		4.10	4.28		8.80		4.70	4.85	5.00	5.11	5.24	6.07					15.35
		velocity	7.06	8.54	8.18		7.95		7.45	7.22	7.00	6.85	6.68	6.59	7.34				6.84
H1 lead leg	R	strides	23	14	14	14	15		15	15	15	15	15	18.5	173.5				
Salmon, Shiann (JAM) (1999		time	6.34	10.57	14.95		24.09		28.82	33.73	38.68	43.81	48.98		55.16	7 / 3			
reaction time	0.186	interval		4.23	4.38		9.14		4.73	4.91	4.95	5.13	5.17	6.18	**PB**				15.25
		velocity	7.10	8.27	7.99		7.66		7.40	7.13	7.07	6.82	6.77	6.47	7.25				6.89
H1 lead leg	R	strides	22	15	15				15	16	16		17	20.5	136.5				
Pedroso, Yadisleidis (ITA) (1		time	6.54	10.84	15.18		24.26		28.93	33.76	38.74	43.84	49.15		55.40	8 / 4			
reaction time	0.208	interval		4.30	4.34		9.08		4.67	4.83	4.98	5.10	5.31	6.25					15.39
		velocity	6.88	8.14	8.06		7.71		7.49	7.25	7.03	6.86	6.59	6.40	7.22				6.82
H1 lead leg	R	strides	24	16	16				16	16	17		17	21	143				
Jamal, Aminat (BRN) (1997)		time	6.37	10.54	14.85		23.76			33.43	38.54	43.88	49.28		55.54	4 / 5			
reaction time	0.210	interval		4.17	4.31		8.91			9.67	5.11	5.34	5.40	6.26					15.85
		velocity	7.06	8.39	8.12		7.86			7.24	6.85	6.55	6.48	6.39	7.20				6.62
H1 lead leg	R	strides	22	15	15						16		17	19.7	104.7				

Woodruff, Gianna (PAN) (19		time	6.34	10.37	14.61		23.59		33.50	38.57	43.78	49.21		55.61	2 / 6		
reaction time	0.223	interval		4.03	4.24		8.98		9.91	5.07	5.21	5.43	6.40	AR			15.71
		velocity	7.10	8.68	8.25		7.80		7.06	6.90	6.72	6.45	6.25	7.19			6.68
H1 lead leg	L	strides	23	15	15					16	17	17	20	123			
Turner, Jessica (GBR) (1995)		time	6.60	11.08	15.58		24.72	29.46	34.20	39.14	44.34	49.65		55.87	9 / 7		
reaction time	0.189	interval		4.48	4.50		9.14	4.74	4.74	4.94	5.20	5.31	6.22				15.45
		velocity	6.82	7.81	7.78		7.66	7.38	7.38	7.09	6.73	6.59	6.43	7.16			6.80
H1 lead leg	L	strides	24	16	16			16	16	17		17	20.7	142.7			
Boden, Lauren (AUS) (1988)		time	6.47	10.71	15.01		23.86		33.33	38.47	43.78	49.31		55.94	3 / 8		
reaction time	0.173	interval		4.24	4.30		8.85		9.47	5.14	5.31	5.53	6.63				15.98
		velocity	6.96	8.25	8.14		7.91		7.39	6.81	6.59	6.33	6.03	7.15			6.57
H1 lead leg	L	strides	22	15	15					16	16	17	20.5	121.5			

Semi-Final 2 (TV A

date 02-Oct-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Clayton, Rushell (JAM) (199		time	6.44	10.64	14.88	19.28	23.84		28.52	33.36	38.32	43.36	48.36		54.17	7 / 1			
reaction time	0.148	interval		4.20	4.24	4.40	4.56		4.68	4.84	4.96	5.04	5.00	5.81			12.84	14.08	15.00
		velocity	6.99	8.33	8.25	7.95	7.68		7.48	7.23	7.06	6.94	7.00	6.88	7.38		8.18	7.46	7.00
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19	181				
Hejnová, Zuzana (CZE) (198		time	6.64	10.92	15.24	19.64	24.12		28.72	33.40	38.28	43.24	48.36		54.41	5 / 2			
reaction time	0.162	interval		4.28	4.32	4.40	4.48		4.60	4.68	4.88	4.96	5.12	6.05			13.00	13.76	14.96
		velocity	6.78	8.18	8.10	7.95	7.81		7.61	7.48	7.17	7.06	6.84	6.61	7.35		8.08	7.63	7.02
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.7	179.7				
Spencer, Ashley (USA) (1993		time	6.24	10.40	14.52	18.88	23.32		27.92	32.64	37.76	42.96	48.28		54.42	8 / 3			
reaction time	0.171	interval		4.16	4.12	4.36	4.44		4.60	4.72	5.12	5.20	5.32	6.14			12.64	13.76	15.64
		velocity	7.21	8.41	8.50	8.03	7.88		7.61	7.42	6.84	6.73	6.58	6.51	7.35		8.31	7.63	6.71
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16	19.2	179.2				
Iuel, Amalie (NOR) (1994)		time	6.32	10.52	14.76	19.16	23.68		28.36	33.20	38.28	43.48	48.84		55.03	4 / 4			
reaction time	0.151	interval		4.20	4.24	4.40	4.52		4.68	4.84	5.08	5.20	5.36	6.19			12.84	14.04	15.64
		velocity	7.12	8.33	8.25	7.95	7.74		7.48	7.23	6.89	6.73	6.53	6.46	7.27		8.18	7.48	6.71
H1 lead leg	L	strides	23	15	15	15	15		15	15	16		16	19	164				
Folorunso, Ayomide (ITA) (1		time	6.52	10.68	14.92	19.24	23.68		28.40	33.28	38.40	43.52	48.92		55.36	6 / 5			
reaction time	0.198	interval		4.16	4.24	4.32	4.44		4.72	4.88	5.12	5.12	5.40	6.44			12.72	14.04	15.64
		velocity	6.90	8.41	8.25	8.10	7.88		7.42	7.17	6.84	6.84	6.48	6.21	7.23		8.25	7.48	6.71
H1 lead leg	R	strides	22	15	15	15	15		16	17	17	17	17	21	187				
Linkiewicz, Joanna (POL) (19		time	6.48	10.72	15.04	19.56	24.24		29.04	33.96	38.92	44.00	49.24		55.38	9 / 6			
reaction time	0.166	interval		4.24	4.32	4.52	4.68		4.80	4.92	4.96	5.08	5.24	6.14			13.08	14.40	15.28
		velocity	6.94	8.25	8.10	7.74	7.48		7.29	7.11	7.06	6.89	6.68	6.51	7.22		8.03	7.29	6.87
H1 lead leg	L	strides	24	16	16	16	16		17	17	17		17	20.5	176.5				
Carli, Sarah (AUS) (1994)		time	6.36	10.52	14.80	19.24	23.88		28.76	33.68	38.72	44.00	49.36		55.43	2 / 7			
reaction time	0.167	interval		4.16	4.28	4.44	4.64		4.88	4.92	5.04	5.28	5.36	6.07	PB		12.88	14.44	15.68
		velocity	7.08	8.41	8.18	7.88	7.54		7.17	7.11	6.94	6.63	6.53	6.59	7.22		8.15	7.27	6.70
H1 lead leg	L	strides	23	15	15	15	15		16	16	16		17	20	168				
Krafzik, Carolina (GER) (199		time	6.36	10.44	14.64	19.04	23.60		28.52	33.56	38.80	44.20	49.88		56.41	3 / 8			
reaction time	0.191	interval		4.08	4.20	4.40	4.56		4.92	5.04	5.24	5.40	5.68	6.53			12.68	14.52	16.32
		velocity	7.08	8.58	8.33	7.95	7.68		7.11	6.94	6.68	6.48	6.16	6.13	7.09		8.28	7.23	6.43
H1 lead leg	L	strides	23	15	15	15	15		16	17	17		18		151				

Semi-Final 1 (TV A

date 02-Oct-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.14	10.07	14.25	18.55	23.08		27.63	32.36	37.30	42.37	47.64		53.91	5 / 1			
reaction time	0.167	interval		3.93	4.18	4.30	4.53		4.55	4.73	4.94	5.07	5.27	6.27			12.41	13.81	15.28
		velocity	7.33	8.91	8.37	8.14	7.73		7.69	7.40	7.09	6.90	6.64	6.38	7.42		8.46	7.60	6.87
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	19.2	180.2				
Watson, Sage (CAN) (1994)		time	6.34	10.51	14.71		23.59		28.16	33.03	37.97	43.13	48.35		54.32	4 / 2			
reaction time	0.183	interval		4.17	4.20		8.88		4.57	4.87	4.94	5.16	5.22	5.97	NR PB				15.32
		velocity	7.10	8.39	8.33		7.88		7.66	7.19	7.09	6.78	6.70	6.70	7.36				6.85
H1 lead leg	R	strides	22	15	15				15	16	16	16	16	20	151				
Ryzhykova, Anna (UKR) (19		time	6.54	10.67	14.85	19.22	23.75		28.46	33.30	38.24	43.21	48.35		54.45	6 / 3			
reaction time	0.171	interval		4.13	4.18	4.37	4.53		4.71	4.84	4.94	4.97	5.14	6.10			12.68	14.08	15.05
		velocity	6.88	8.47	8.37	8.01	7.73		7.43	7.23	7.09	7.04	6.81	6.56	7.35		8.28	7.46	6.98
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	15	15	19.2	172.2				
Hechavarria, Zurian (CUB) (1		time	6.44	10.54	14.75		23.62		28.36	33.20	38.24	43.48	48.85		55.03	7 / 4			
reaction time	0.216	interval		4.10	4.21		8.87		4.74	4.84	5.04	5.24	5.37	6.18					15.65
		velocity	6.99	8.54	8.31		7.89		7.38	7.23	6.94	6.68	6.52	6.47	7.27				6.71
H1 lead leg	L	strides	23	15	15				16	16	16	17	17	21.2	156.2				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Claes, Hanne (BEL) (1991)		time	6.34	10.47	14.71		23.56			33.10	38.10	43.34	48.81		55.25	3 / 5			
reaction time	0.159	interval		4.13	4.24		8.85			9.54	5.00	5.24	5.47	6.44					15.71
		velocity	7.10	8.47	8.25		7.91			7.34	7.00	6.68	6.40	6.21	7.24				6.68
H1 lead leg	R	strides	23	15	15							17	17	21	108				
Rudakova, Vera (ANA) (1992		time	6.50	10.74	15.05	19.55	24.22		28.99	33.90	38.94	44.14	49.38		55.57	8 / 6			
reaction time	0.246	interval		4.24	4.31	4.50	4.67		4.77	4.91	5.04	5.20	5.24	6.19			13.05	14.35	15.48
		velocity	6.92	8.25	8.12	7.78	7.49		7.34	7.13	6.94	6.73	6.68	6.46	7.20		8.05	7.32	6.78
H1 lead leg	L	strides	21	15	15		15		15	15	16	16	16		144				
Bol, Femke (NED) (2000)		time	6.64	10.88	15.18	19.65	24.26			33.97	39.00	44.48	49.98		56.37	2 / 7			
reaction time	0.219	interval		4.24	4.30	4.47	4.61			9.71	5.03	5.48	5.50	6.39			13.01	14.32	16.01
		velocity	6.78	8.25	8.14	7.83	7.59			7.21	6.96	6.39	6.36	6.26	7.10		8.07	7.33	6.56
H1 lead leg	L	strides	22				15					16	16		69				
Beesley, Meghan (GBR) (198		time	6.34	10.54	14.81		23.82		28.59	33.46	38.70	44.28	50.05		56.89	9 / 8			
reaction time	0.173	interval		4.20	4.27		9.01		4.77	4.87	5.24	5.58	5.77	6.84					16.59
		velocity	7.10	8.33	8.20		7.77		7.34	7.19	6.68	6.27	6.07	5.85	7.03				6.33
H1 lead leg	L	strides	24	16	16		16			17		19	19		127				

Heat 5 (TV Analysis)

date 01-Oct-19

Henson (2021) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Clayton, Rushell (JAM) (199		time	6.60	10.76	15.04	19.36	23.88			33.60	38.68	43.88	49.16		55.23	7 / 1			
reaction time	0.176	interval		4.16	4.28	4.32	4.52			9.72	5.08	5.20	5.28	6.07			12.76	14.24	15.56
		velocity	6.82	8.41	8.18	8.10	7.74			7.20	6.89	6.73	6.63	6.59	7.24		8.23	7.37	6.75
H1 lead leg	L	strides	23	1`5	15	15	15				16	16	16	19	135				

Heat 4 (TV Analysis)

date 01-Oct-19

Henson (2021) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Iuel, Amalie (NOR) (1994)		time	6.32	10.48	14.76	19.08	23.72		28.40	33.18	38.16	43.20	48.56		54.72	5 / 1			
reaction time	0.157	interval		4.16	4.28	4.32	4.64		4.68	4.78	4.98	5.04	5.36	6.16	**NR PB**		12.76	14.10	15.38
		velocity	7.12	8.41	8.18	8.10	7.54		7.48	7.32	7.03	6.94	6.53	6.49	7.31		8.23	7.45	6.83
H1 lead leg	L	strides	23	15	15	15			15	15	15	16	16	19	164				

Heat 3 (TV Analysis)

date 01-Oct-19

Henson (2021) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.24	10.28	14.60	18.96	23.56		28.40	33.24	38.20	43.44	48.68		54.87	5 / 1			
reaction time	0.194	interval		4.04	4.32	4.36	4.60		4.84	4.84	4.96	5.24	5.24	6.19			12.72	14.28	15.44
		velocity	7.21	8.66	8.10	8.03	7.61		7.23	7.23	7.06	6.68	6.68	6.46	7.29		8.25	7.35	6.80
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.2	179.2				

Heat 1 (TV Analysis)

date 01-Oct-19

Henson (2021) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.48	10.64	14.92	19.40	23.92			33.40	38.52	43.44	48.52		54.45	8 / 1			
reaction time	0.176	interval		4.16	4.28	4.48	4.52			9.48	5.12	4.92	5.08	5.93			12.92	14.00	15.12
		velocity	6.94	8.41	8.18	7.81	7.74			7.38	6.84	7.11	6.89	6.75	7.35		8.13	7.50	6.94
H1 lead leg	R	strides	23	15	15	15	15				16	16	16	18.2	149.2				
Sprunger, Leá (SUI) (1990)		time	6.36	10.52	14.76	19.16	23.64		28.36	33.24	38.28	43.40	48.68		54.98	4 / 2			
reaction time	0.182	interval		4.16	4.24	4.40	4.48		4.72	4.88	5.04	5.12	5.28	6.30			12.80	14.08	15.44
		velocity	7.08	8.41	8.25	7.95	7.81		7.42	7.17	6.94	6.84	6.63	6.35	7.28		8.20	7.46	6.80
H1 lead leg	R	strides	21	14	14		14		15	15	15	15	15	19	157				

2019 The Match - Europe v USA (Minsk, BLR) (TV Analysis)

FINAL

date 10-Sep-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ryzhykova, Anna (UKR) (19		time	6.54	10.67	14.88	19.18	23.65		28.42	33.40	38.47	43.71	49.01		55.32	6 / 1			
reaction time		interval		4.13	4.21	4.30	4.47		4.77	4.98	5.07	5.24	5.30	6.31			12.64	14.22	15.61
		velocity	6.88	8.47	8.31	8.14	7.83		7.34	7.03	6.90	6.68	6.60	6.34	7.23		8.31	7.38	6.73
H1 lead leg	R	strides		14	14	14	14		15	15	15	16	16	19.7	152.7				
Sprunger, Leá (SUI) (1990)		time	6.47	10.71		19.41	23.92		28.69		38.77	44.07	49.45		55.46	4 / 2			
reaction time		interval		4.24		8.70	4.51		4.77		10.08	5.30	5.38	6.01			12.94		
		velocity	6.96	8.25		8.05	7.76		7.34		6.94	6.60	6.51	6.66	7.21		8.11		
H1 lead leg	R	strides		14	14		14		15			16	16	18.5	107.5				
Beesley, Meghan (GBR) (198		time	6.34	10.54		19.18	23.72		28.46		38.53	43.84	49.25		55.49	2 / 3			
reaction time		interval		4.20		8.64	4.54		4.74		10.07	5.31	5.41	6.24			12.84		
		velocity	7.10	8.33		8.10	7.71		7.38		6.95	6.59	6.47	6.41	7.21		8.18		
H1 lead leg	L	strides		16	16		16		17			18	18	22.2	123.2				
Spencer, Ashley (USA) (1993		time	6.47	10.71	15.05	19.48	23.99		28.66	33.43	38.50	43.61	48.88		dnf	5 / --			
reaction time		interval		4.24	4.34	4.43	4.51		4.67	4.77	5.07	5.11	5.27				13.01	13.95	15.45
		velocity	6.96	8.25	8.06	7.90	7.76		7.49	7.34	6.90	6.85	6.64				8.07	7.53	6.80
H1 lead leg	L	strides		15	15		15		15	15	16	16	16		123				

2019 Weltklasse (Zürich, SUI) (TV Analysis)

FINAL

date 29-Aug-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.32	10.44		19.02	23.56	25.4	28.16	32.76	37.40	42.32	47.24		52.85	3 / 1			
reaction time	0.147	interval		4.12		8.58	4.54		4.60	4.60	4.64	4.92	4.92	5.61			12.70	13.74	14.48
		velocity	7.12	8.50		8.16	7.71	7.87	7.61	7.61	7.54	7.11	7.11	7.13	7.57		8.27	7.64	7.25
H1 lead leg	R	strides	23	15			15		15	15	15	16	16	19	149				
Little, Shamier (USA) (1995)		time	6.18	10.40		18.96	23.38	25.3	27.92	32.68		42.56	47.74		53.86	2 / 2			
reaction time	0.202	interval		4.22		8.56	4.42		4.54	4.76		9.88	5.18	6.12			12.78	13.72	15.06
		velocity	7.28	8.29		8.18	7.92	7.91	7.71	7.35		7.09	6.76	6.54	7.43		8.22	7.65	6.97
H1 lead leg	L	strides	22	15			15		15	15			16	20	118				
Muhammad, Dalilah (USA) (		time	6.24	10.20	14.48	19.06	23.64	25.6	28.22	32.78	37.54	42.46	47.48		54.13	4 / 3			
reaction time	0.193	interval		3.96	4.28	4.58	4.58		4.58	4.56	4.76	4.92	5.02	6.65			12.82	13.72	14.70
		velocity	7.21	8.84	8.18	7.64	7.64	7.81	7.64	7.68	7.35	7.11	6.97	6.02	7.39		8.19	7.65	7.14
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	19.5	180.5				
Hejnová, Zuzana (CZE) (198		time	6.64	10.96	15.32	19.76	24.24	26.2	28.88	33.56	38.44	43.48	48.64		54.75	6 / 4			
reaction time	0.144	interval		4.32	4.36	4.44	4.48		4.64	4.68	4.88	5.04	5.16	6.11			13.12	13.80	15.08
		velocity	6.78	8.10	8.03	7.88	7.81	7.63	7.54	7.48	7.17	6.94	6.78	6.55	7.31		8.00	7.61	6.96
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Sprunger, Leá (SUI) (1990)		time	6.32	10.48		19.04	23.48	25.4	28.16	33.00	38.00	43.12	48.60		55.14	7 / 5			
reaction time	0.140	interval		4.16		8.56	4.44		4.68	4.84	5.00	5.12	5.48	6.54			12.72	13.96	15.60
		velocity	7.12	8.41		8.18	7.88	7.87	7.48	7.23	7.00	6.84	6.39	6.12	7.25		8.25	7.52	6.73
H1 lead leg	R	strides	21	14			14		15	15		15	16	20	130				
Ryzhykova, Anna (UKR) (19		time	6.48	10.64		19.24	23.88	25.9	28.72	33.68	38.72	43.88	49.20		55.28	1 / 6			
reaction time	0.149	interval		4.16		8.60	4.64		4.84	4.96	5.04	5.16	5.32	6.08			12.76	14.44	15.52
		velocity	6.94	8.41		8.14	7.54	7.72	7.23	7.06	6.94	6.78	6.58	6.58	7.24		8.23	7.27	6.77
H1 lead leg	R	strides	22	14			15		15	15		15	16	19.7	131.7				
Russell, Janieve (JAM) (1993		time	6.60	10.92		19.92	24.60	26.5	29.40	34.36	39.36				55.87	8 / 7			
reaction time	0.144	interval		4.32		9.00	4.68		4.80	4.96	5.00						13.32	14.44	
		velocity	6.82	8.10		7.78	7.48	7.55	7.29	7.06	7.00				7.16		7.88	7.27	
H1 lead leg	R	strides	23	15			15		16	16	16				101				
Spencer, Ashley (USA) (1993		time	6.44	10.68	15.00	19.52	24.16	26.2	28.96	33.92	39.04	44.48			56.90	5 / 8			
reaction time	0.132	interval		4.24	4.32	4.52	4.64		4.80	4.96	5.12	5.44					13.08	14.40	
		velocity	6.99	8.25	8.10	7.74	7.54	7.63	7.29	7.06	6.84	6.43			7.03		8.03	7.29	
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16			144				

2019 Chinese National Grand Prix Final (Daqing, CHN)

FINAL date 23-Aug-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)		time	6.80	11.28	15.94	20.62	25.44		30.40	35.56	40.86	46.28	51.97		58.44	7 / 1			
reaction time	0.238	interval		4.48	4.66	4.68	4.82		4.96	5.16	5.30	5.42	5.69	6.47			13.82	14.94	16.41
		velocity	6.62	7.81	7.51	7.48	7.26		7.06	6.78	6.60	6.46	6.15	6.18	6.84		7.60	7.03	6.40
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	18	19	23	205				
Lu Zhangwei (CHN) (2001)		time	6.87	11.23	15.85	20.64	25.48		30.60	35.65	41.01	46.65	52.57		59.30	5 / 2			
reaction time	0.247	interval		4.36	4.62	4.79	4.84		5.12	5.05	5.36	5.64	5.92	6.73			13.77	15.01	16.92
		velocity	6.55	8.03	7.58	7.31	7.23		6.84	6.93	6.53	6.21	5.91	5.94	6.75		7.63	7.00	6.21
H1 lead leg	R	strides	24	17	17	17	17		17	17	17	18	18	23	202				
Lan Tianlu (CHN) (1999)		time	6.80	11.28	15.92	20.82	25.80		30.94	36.14	41.41	47.06	53.10		60.04	8 / 3			
reaction time	0.228	interval		4.48	4.64	4.90	4.98		5.14	5.20	5.27	5.65	6.04	6.94			14.02	15.32	16.96
		velocity	6.62	7.81	7.54	7.14	7.03		6.81	6.73	6.64	6.19	5.79	5.76	6.66		7.49	6.85	6.19
H1 lead leg	L	strides	23	16	16	17	17		17	17	17	18	19	22.5	199.5				
Hu Lihong (CHN) (1999)		time	7.00	11.60	16.42	21.30	26.30		31.38	36.66	42.14	47.81	53.79		60.89	9 / 4			
reaction time	0.217	interval		4.60	4.82	4.88	5.00		5.08	5.28	5.48	5.67	5.98	7.10			14.30	15.36	17.13
		velocity	6.43	7.61	7.26	7.17	7.00		6.89	6.63	6.39	6.17	5.85	5.63	6.57		7.34	6.84	6.13
H1 lead leg	L	strides	23	16	16	16	16		16	16	17	17	17	21	191				
Tao Xue (CHN) (1999)		time	7.14	11.68	16.33	21.15	26.16		31.38	36.80	42.71	48.70	54.82		61.74	3 / 5			
reaction time	0.294	interval		4.54	4.65	4.82	5.01		5.22	5.42	5.91	5.99	6.12	6.92			14.01	15.65	18.02
		velocity	6.30	7.71	7.53	7.26	6.99		6.70	6.46	5.92	5.84	5.72	5.78	6.48		7.49	6.71	5.83
H1 lead leg	L	strides	23	16	16	16	16		17	17	18	18	18	21	196				
Jiang Liyunzhe (CHN) (2002)		time	6.72	11.26	15.83	20.65	25.68		30.95	36.27	41.86	48.03	54.77		63.02	2 / 6			
reaction time	0.224	interval		4.54	4.57	4.82	5.03		5.27	5.32	5.59	6.17	6.74	8.25			13.93	15.62	18.50
		velocity	6.70	7.71	7.66	7.26	6.96		6.64	6.58	6.26	5.67	5.19	4.85	6.35		7.54	6.72	5.68
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	20	23.5	200.5				
Ou Ying (CHN) (2001)		time	7.04	11.56	16.22	20.94	25.93		31.03	36.39	42.04	fell			68.86	4 / --			
reaction time	0.234	interval		4.52	4.66	4.72	4.99		5.10	5.36	5.65				DQ		13.90	15.45	
		velocity	6.39	7.74	7.51	7.42	7.01		6.86	6.53	6.19				5.81		7.55	6.80	
H1 lead leg	L	strides	24	17	17	17	17		17	17	17				143				

Zhou Yu (CHN) (1999)		time	6.91	11.41	fell									dnf	6 / --			
reaction time	0.238	interval		4.50														
		velocity	6.51	7.78														
H1 lead leg	L	strides	24	16										40				

Heat 2

date 22-Aug-19 *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zhou Yu (CHN) (1999)		time	7.00	11.53	16.28	21.09	26.01		31.08	36.44	41.89	47.56	53.29		59.70	4 / 1			
reaction time	0.233	interval		4.53	4.75	4.81	4.92		5.07	5.36	5.45	5.67	5.73	6.41			14.09	15.35	16.85
		velocity	6.43	7.73	7.37	7.28	7.11		6.90	6.53	6.42	6.17	6.11	6.24	6.70		7.45	6.84	6.23
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	18	18	21.8	195.8				
Ou Ying (CHN) (2001)		time	7.04	11.60	16.25	20.97	25.89		31.13	36.47	41.99	47.65	53.49		59.81	6 / 2			
reaction time	0.249	interval		4.56	4.65	4.72	4.92		5.24	5.34	5.52	5.66	5.84	6.32			13.93	15.50	17.02
		velocity	6.39	7.68	7.53	7.42	7.11		6.68	6.55	6.34	6.18	5.99	6.33	6.69		7.54	6.77	6.17
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	18	21	200				
Hu Lihong (CHN) (1999)		time	7.06	11.72	16.54	21.38	26.38		31.38	36.52	41.98	47.56	53.37		60.18	9 / 3			
reaction time	0.216	interval		4.66	4.82	4.84	5.00		5.00	5.14	5.46	5.58	5.81	6.81			14.32	15.14	16.85
		velocity	6.37	7.51	7.26	7.23	7.00		7.00	6.81	6.41	6.27	6.02	5.87	6.65		7.33	6.94	6.23
H1 lead leg	L	strides	23	16	16	16	16		16	16	17	17	17	20.8	190.8				
Tao Xue (CHN) (1999)		time	7.26	11.90	16.73	21.59	26.64		32.00	37.54	43.16	49.03	54.92		61.66	7 / 4			
reaction time	0.317	interval		4.64	4.83	4.86	5.05		5.36	5.54	5.62	5.87	5.89	6.74			14.33	15.95	17.38
		velocity	6.20	7.54	7.25	7.20	6.93		6.53	6.32	6.23	5.96	5.94	5.93	6.49		7.33	6.58	6.04
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18	21	195				
Liu Hongjuan (CHN) (1996)		time	7.10	11.78	16.54	21.52	26.71		32.28	37.95	43.96	50.03	56.19		63.27	8 / 5			
reaction time	0.284	interval		4.68	4.76	4.98	5.19		5.57	5.67	6.01	6.07	6.16	7.08			14.42	16.43	18.24
		velocity	6.34	7.48	7.35	7.03	6.74		6.28	6.17	5.82	5.77	5.68	5.65	6.32		7.28	6.39	5.76
H1 lead leg	L	strides	23	16	16	16	16		18	18	19	19	19	22.2	202.2				
Chen Zhuo (CHN) (2001)		time	7.12	11.95	16.88	22.01	27.36		32.90	38.82	44.90	51.17	57.49		64.44	3 / 6			
reaction time	0.223	interval		4.83	4.93	5.13	5.35		5.54	5.92	6.08	6.27	6.32	6.95			14.89	16.81	18.67
		velocity	6.32	7.25	7.10	6.82	6.54		6.32	5.91	5.76	5.58	5.54	5.76	6.21		7.05	6.25	5.62
H1 lead leg	L	strides	23	17	17	17	17		17	18	18	19	19	22	204				

Heat 1

date 22-Aug-19 *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Lu Zhangwei (CHN) (2001)		time	6.84	11.33	15.97	20.75	25.68		30.74	35.97	41.46	47.08	52.85		59.39	6 / 1			
reaction time	0.256	interval		4.49	4.64	4.78	4.93		5.06	5.23	5.49	5.62	5.77	6.54			13.91	15.22	16.88
		velocity	6.58	7.80	7.54	7.32	7.10		6.92	6.69	6.38	6.23	6.07	6.12	6.74		7.55	6.90	6.22
H1 lead leg	R	strides	24	17	17	17	17		17	17	18	18	19	22.5	203.5				
Huang Yan (CHN) (1996)		time	6.80	11.30	15.92	20.59	25.41		30.31	35.55	41.14	46.95	52.80		59.43	4 / 2			
reaction time	0.255	interval		4.50	4.62	4.67	4.82		4.90	5.24	5.59	5.81	5.85	6.63			13.79	14.96	17.25
		velocity	6.62	7.78	7.58	7.49	7.26		7.14	6.68	6.26	6.02	5.98	6.03	6.73		7.61	7.02	6.09
H1 lead leg	L	strides	24	17	17	17	17		17	18	19	19	19	22.5	206.5				
Lan Tianlu (CHN) (1999)		time	7.02	11.63	16.38	21.29	26.24		31.45	36.70	42.06	47.56	53.55		60.49	7 / 3			
reaction time	0.306	interval		4.61	4.75	4.91	4.95		5.21	5.25	5.36	5.50	5.99	6.94			14.27	15.41	16.85
		velocity	6.41	7.59	7.37	7.13	7.07		6.72	6.67	6.53	6.36	5.84	5.76	6.61		7.36	6.81	6.23
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	18	22	195				
Jiang Liyunzhe (CHN) (2002)		time	6.76	11.44	16.30	21.32	26.40		31.65	37.02	42.53	48.20	54.29		61.32	8 / 4			
reaction time	0.171	interval		4.68	4.86	5.02	5.08		5.25	5.37	5.51	5.67	6.09	7.03			14.56	15.70	17.27
		velocity	6.66	7.48	7.20	6.97	6.89		6.67	6.52	6.35	6.17	5.75	5.69	6.52		7.21	6.69	6.08
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	18	21.5	195.5				
Chen Liying (CHN) (1994)		time	6.96	11.56	16.34	21.28	26.36		31.50	36.99	42.94	48.98	55.14		62.07	9 / 5			
reaction time	0.226	interval		4.60	4.78	4.94	5.08		5.14	5.49	5.95	6.04	6.16	6.93			14.32	15.71	18.15
		velocity	6.47	7.61	7.32	7.09	6.89		6.81	6.38	5.88	5.79	5.68	5.77	6.44		7.33	6.68	5.79
H1 lead leg	R	strides	24	18	17	17	17		17	18	19	19	19	22	207				
Di Chengqian (CHN) (1999)		time	7.07	11.95	16.93	22.12	27.49		33.20	39.12	45.46		59.00		66.19	3 / 6			
reaction time	0.228	interval		4.88	4.98	5.19	5.37		5.71	5.92	6.34		13.54	7.19			15.05	17.00	19.88
		velocity	6.36	7.17	7.03	6.74	6.52		6.13	5.91	5.52		5.17	5.56	6.04		6.98	6.18	5.28
H1 lead leg	L	strides	23	16	16	16	16		17	17	19			21.2	161.2				

2019 Chinese National Youth Games (Taiyuan, CHN)

U20 FINAL

date 17-Aug-19 *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.66	11.08	15.66	20.38	25.26		30.26	35.42	40.58	46.04	51.58		57.76	6 / 1			
reaction time	0.241	interval		4.42	4.58	4.72	4.88		5.00	5.16	5.16	5.46	5.54	6.18			13.72	15.04	16.16
		velocity	6.76	7.92	7.64	7.42	7.17		7.00	6.78	6.78	6.41	6.32	6.47	6.93		7.65	6.98	6.50
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18	20.8	194.8				
Lu Zhangwei (CHN) (2001)		time	6.84	11.32	15.96	20.74	25.62		30.64	35.88	41.18	46.70	52.28		58.53	5 / 2			
reaction time	0.206	interval		4.48	4.64	4.78	4.88		5.02	5.24	5.30	5.52	5.58	6.25	PB		13.90	15.14	16.40

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	6.58	7.81	7.54	7.32	7.17	6.97	6.68	6.60	6.34	6.27	6.40	6.83		7.55	6.94	6.40
H1 lead leg	R	strides	24	17	17	17	17	17	17	17	18	18	21.5	200.5				
Zou Yifan (CHN) (2000)		time	7.14	11.66	16.18	20.82	25.66	30.74	36.08	41.68	47.38	53.22		59.56	4 / 3			
reaction time	0.314	interval		4.52	4.52	4.64	4.84	5.08	5.34	5.60	5.70	5.84	6.34	PB		13.68	15.26	17.14
		velocity	6.30	7.74	7.74	7.54	7.23	6.89	6.55	6.25	6.14	5.99	6.31	6.72		7.68	6.88	6.13
H1 lead leg	R	strides	24	16	17	17	17	17	18	18	18	18	21	201				
Wang Jiaqi (CHN) (2000)		time	6.88	11.40	16.08	20.92	25.90	31.02	36.42	41.98	47.62	53.38		59.89	8 / 4			
reaction time	0.255	interval		4.52	4.68	4.84	4.98	5.12	5.40	5.56	5.64	5.76	6.51	PB		14.04	15.50	16.96
		velocity	6.54	7.74	7.48	7.23	7.03	6.84	6.48	6.29	6.21	6.08	6.14	6.68		7.48	6.77	6.19
H1 lead leg	R	strides	24	17	17	17	17	17	18	18	18	18	22	203				
Liang Yina (CHN) (2001)		time	6.94	11.52	16.20	21.04	26.14	31.54	37.10	42.74	48.54	54.48		61.35	7 / 5			
reaction time	0.364	interval		4.58	4.68	4.84	5.10	5.40	5.56	5.64	5.80	5.94	6.87			14.10	16.06	17.38
		velocity	6.48	7.64	7.48	7.23	6.86	6.48	6.29	6.21	6.03	5.89	5.82	6.52		7.45	6.54	6.04
H1 lead leg	L	strides	24	17	17	17	17	18	18	18	18	18	22	204				
Fu Yijia (CHN) (2001)		time	7.12	11.84	16.72	21.70	26.88	32.30	37.98	43.78	49.92	56.58		63.84	9 / 6			
reaction time	0.408	interval		4.72	4.88	4.98	5.18	5.42	5.68	5.80	6.14	6.66	7.26			14.58	16.28	18.60
		velocity	6.32	7.42	7.17	7.03	6.76	6.46	6.16	6.03	5.70	5.26	5.51	6.27		7.20	6.45	5.65
H1 lead leg	L	strides	24	17	17	17	17	17	18	18	19	20	22	206				
Chen Zhuo (CHN) (2001)		time	7.08	11.80	16.66	21.82	27.34	33.06	39.12	45.38	51.74	58.22		65.23	2 / 7			
reaction time	0.198	interval		4.72	4.86	5.16	5.52	5.72	6.06	6.26	6.36	6.48	7.01			14.74	17.30	19.10
		velocity	6.36	7.42	7.20	6.78	6.34	6.12	5.78	5.59	5.50	5.40	5.71	6.13		7.12	6.07	5.50
H1 lead leg	L	strides	23	16	16	16	17	17	18	18	19	19	22	201				
Dou Lingyu (CHN) (2000)		time	6.94	11.52	16.34	21.36	26.72	32.44	38.56	45.16	51.80	58.52		66.01	3 / 8			
reaction time	0.203	interval		4.58	4.82	5.02	5.36	5.72	6.12	6.60	6.64	6.72	7.49			14.42	17.20	19.96
		velocity	6.48	7.64	7.26	6.97	6.53	6.12	5.72	5.30	5.27	5.21	5.34	6.06		7.28	6.10	5.26
H1 lead leg	L	strides	25	17	17	17	18	18	19	20	20	21	24	216				

U18 FINAL

date 17-Aug-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zhou Xiaohan (CHN) (2002)		time	6.82	11.36	16.16	20.98	25.92		31.00	36.20	41.72	47.22	52.82		59.37	5 / 1			
reaction time	0.236	interval		4.54	4.80	4.82	4.94		5.08	5.20	5.52	5.50	5.60	6.55			14.16	15.22	16.62
		velocity	6.60	7.71	7.29	7.26	7.09		6.89	6.73	6.34	6.36	6.25	6.11	6.74		7.42	6.90	6.32
H1 lead leg	R	strides	24	16	16	17	17		17	18	18	18	19	23	203				
Xiong Yiqi (CHN) (2002)		time	7.20	12.02	16.92	21.92	27.14		32.64	38.26	44.00	49.90	55.78		62.41	8 / 2			
reaction time	0.223	interval		4.82	4.90	5.00	5.22		5.50	5.62	5.74	5.90	5.88	6.63			14.72	16.34	17.52
		velocity	6.25	7.26	7.14	7.00	6.70		6.36	6.23	6.10	5.93	5.95	6.03	6.41		7.13	6.43	5.99
H1 lead leg	L	strides	25	17	17	17	17		19	19	19	19	19	23.2	211.2				
Chen Leyi (CHN) (2003)		time	7.24	11.94	16.80	21.76	26.82		32.20	37.70	43.48	49.40	55.42		62.45	4 / 3			
reaction time	0.397	interval		4.70	4.86	4.96	5.06		5.38	5.50	5.78	5.92	6.02	7.03			14.52	15.94	17.72
		velocity	6.22	7.45	7.20	7.06	6.92		6.51	6.36	6.06	5.91	5.81	5.69	6.41		7.23	6.59	5.93
H1 lead leg	R	strides	26	17	17	17	17		18	18	19	19	19	23	210				
Li Yirong (CHN) (2002)		time	7.08	11.86	16.78	21.82	26.92		32.24	37.66	43.40	49.50	55.94		63.46	6 / 4			
reaction time	0.188	interval		4.78	4.92	5.04	5.10		5.32	5.42	5.74	6.10	6.44	7.52			14.74	15.84	18.28
		velocity	6.36	7.32	7.11	6.94	6.86		6.58	6.46	6.10	5.74	5.43	5.32	6.30		7.12	6.63	5.74
H1 lead leg	L	strides	25	17	17	17	17		18	18	19	20	21	24.5	213.5				
Pan Jianan (CHN) (2002)		time	6.92	11.32	16.20	21.16	26.34		31.70	37.22	43.32	49.60	55.98		63.98	9 / 5			
reaction time	0.249	interval		4.40	4.88	4.96	5.18		5.36	5.52	6.10	6.28	6.38	8.00			14.24	16.06	18.76
		velocity	6.50	7.95	7.17	7.06	6.76		6.53	6.34	5.74	5.57	5.49	5.00	6.25		7.37	6.54	5.60
H1 lead leg	L	strides	23	15	17	17	17		17	17	19	19	19	24.2	204.2				
Chen Qian (CHN) (2002)		time	7.22	12.06	17.00	21.96	27.12		32.46	38.22	44.30	50.64	57.20		65.02	2 / 6			
reaction time	0.144	interval		4.84	4.94	4.96	5.16		5.34	5.76	6.08	6.34	6.56	7.82			14.74	16.26	18.98
		velocity	6.23	7.23	7.09	7.06	6.78		6.55	6.08	5.76	5.52	5.34	5.12	6.15		7.12	6.46	5.53
H1 lead leg	L	strides	24	17	17	17	17		17	18	19	20	20	24	210				
Wang Shuzhen (CHN) (2002		time	7.20	12.36	17.40	22.44	27.76		33.36	39.32	45.72	52.32	59.06		67.12	3 / 7			
reaction time	0.204	interval		5.16	5.04	5.04	5.32		5.60	5.96	6.40	6.60	6.74	8.06			15.24	16.88	19.74
		velocity	6.25	6.78	6.94	6.94	6.58		6.25	5.87	5.47	5.30	5.19	4.96	5.96		6.89	6.22	5.32
H1 lead leg	L	strides	24	17	17	17	17		17	18	19	19	19	23	207				
He Xueying (CHN) (2002)		time	6.80	11.56	16.44	21.40	26.52		31.62	36.70	41.94	*fell*			dnf	7 / --			
reaction time		interval		4.76	4.88	4.96	5.12		5.10	5.08	5.24						14.60	15.30	
		velocity	6.62	7.35	7.17	7.06	6.84		6.86	6.89	6.68						7.19	6.86	
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	19			162				

U20 Heat 2

date 17-Aug-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zou Yifan (CHN) (2000)		time	7.24	11.86	16.54	21.32	26.26		31.38	36.78	42.30	48.20	54.36		61.15	4 / 1			
reaction time	0.269	interval		4.62	4.68	4.78	4.94		5.12	5.40	5.52	5.90	6.16	6.79			14.08	15.46	17.58

		velocity	6.22	7.58	7.48	7.32	7.09	6.84	6.48	6.34	5.93	5.68	5.89	6.54		7.46	6.79	5.97
H1 lead leg	L	strides	24	17	17	17	17	17	17	17	19	19	21.2	202.2				
Lu Zhangwei (CHN) (2001)		time	7.06	11.68	16.44	21.26	26.26	31.42	36.72	42.20	48.06	54.18		61.70	7 / 2			
reaction time	0.191	interval		4.62	4.76	4.82	5.00	5.16	5.30	5.48	5.86	6.12	7.52			14.20	15.46	17.46
		velocity	6.37	7.58	7.35	7.26	7.00	6.78	6.60	6.39	5.97	5.72	5.32	6.48		7.39	6.79	6.01
H1 lead leg	R	strides	23	17	17	17	17	17	17	17	18	20	23	203				
Wang Jiaqi (CHN) (2000)		time	7.18	11.70	16.34	21.10	26.10	31.40	37.02	42.96	49.18	55.78		62.86	3 / 3			
reaction time	0.394	interval		4.52	4.64	4.76	5.00	5.30	5.62	5.94	6.22	6.60	7.08			13.92	15.92	18.76
		velocity	6.27	7.74	7.54	7.35	7.00	6.60	6.23	5.89	5.63	5.30	5.65	6.36		7.54	6.60	5.60
H1 lead leg	R	strides	24	17	17	17	17	18	18	19	19	21	22.5	209.5				
Wang Yuanyuan (CHN) (200		time	7.32	12.12	17.00	22.04	27.28	32.80	38.54	44.48	50.70	56.90		63.49	5 / 4			
reaction time	0.191	interval		4.80	4.88	5.04	5.24	5.52	5.74	5.94	6.22	6.20	6.59			14.72	16.50	18.36
		velocity	6.15	7.29	7.17	6.94	6.68	6.34	6.10	5.89	5.63	5.65	6.07	6.30		7.13	6.36	5.72
H1 lead leg	L	strides	24	17	17	17	18	18	18	19	19	19	22	208				
Ou Ying (CHN) (2001)		time	7.26	11.98	16.76	21.82	26.88	32.14	37.40	42.80	53.34	59.54		66.39	6 / 5			
reaction time	0.246	interval		4.72	4.78	5.06	5.06	5.26	5.26	5.40	10.54	6.20	6.85			14.56	15.58	22.14
		velocity	6.20	7.42	7.32	6.92	6.92	6.65	6.65	6.48	3.32	5.65	5.84	6.03		7.21	6.74	4.74
H1 lead leg	L	strides	24	17	17	17	17	17	17	17	*fell*	19	21.5	183.5				
Xie Hanmeng (CHN) (2001)		time	7.36	12.16	17.20	22.58	28.38	34.82	41.86			66.74		76.27	2 / 6			
reaction time	0.232	interval		4.80	5.04	5.38	5.80	6.44	7.04			24.88	9.53			15.22	19.28	24.88
		velocity	6.11	7.29	6.94	6.51	6.03	5.43	4.97			4.22	4.20	5.24		6.90	5.45	4.22
H1 lead leg	L	strides	24	17	17	17	18	19	20	21				153				
Luo Ouxuan (CHN) (2000)		time	7.32	12.26	17.24	22.36								dnf	9 / --			
reaction time		interval		4.94	4.98	5.12										15.04		
		velocity	6.15	7.09	7.03	6.84										6.98		
H1 lead leg	R	strides	24	16	16	16								72				

U20 Heat 1

date 17-Aug-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.78	11.34	16.10	20.94	25.94		31.14	36.54	41.94	47.78	53.66		60.37	6 / 1			
reaction time	0.222	interval		4.56	4.76	4.84	5.00		5.20	5.40	5.40	5.84	5.88	6.71			14.16	15.60	17.12
		velocity	6.64	7.68	7.35	7.23	7.00		6.73	6.48	6.48	5.99	5.95	5.96	6.63		7.42	6.73	6.13
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				
Liang Yina (CHN) (2001)		time	6.98	11.70	16.58	21.56	26.80		32.32	38.08	43.84	49.84	55.92		62.37	7 / 2			
reaction time	0.241	interval		4.72	4.88	4.98	5.24		5.52	5.76	5.76	6.00	6.08	6.45			14.58	16.52	17.84
		velocity	6.45	7.42	7.17	7.03	6.68		6.34	6.08	6.08	5.83	5.76	6.20	6.41		7.20	6.36	5.89
H1 lead leg	R	strides	25	16	17	17	17		18	18	18	19	19	21.5	205.5				
Fu Yijia (CHN) (2001)		time	7.06	11.92	16.90	21.94	27.14		32.46	38.02	43.72	49.80	55.90		63.00	5 / 3			
reaction time	0.258	interval		4.86	4.98	5.04	5.20		5.32	5.56	5.70	6.08	6.10	7.10			14.88	16.08	17.88
		velocity	6.37	7.20	7.03	6.94	6.73		6.58	6.29	6.14	5.76	5.74	5.63	6.35		7.06	6.53	5.87
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	19	19	21.2	204.2				
Chen Zhuo (CHN) (2001)		time	6.88	11.64	16.52	21.50	26.68		32.10	37.80	43.72	49.94	56.24		63.25	3 / 4			
reaction time	0.172	interval		4.76	4.88	4.98	5.18		5.42	5.70	5.92	6.22	6.30	7.01			14.62	16.30	18.44
		velocity	6.54	7.35	7.17	7.03	6.76		6.46	6.14	5.91	5.63	5.56	5.71	6.32		7.18	6.44	5.69
H1 lead leg	L	strides	23	17	17	17	17		17	17	17	18	19	21.5	200.5				
Dou Lingyu (CHN) (2000)		time	6.82	11.40	16.14	20.98	26.16		31.62	37.38	43.34	49.56	55.90		63.46	2 / 5			
reaction time	0.188	interval		4.58	4.74	4.84	5.18		5.46	5.76	5.96	6.22	6.34	7.56	**PB**		14.16	16.40	18.52
		velocity	6.60	7.64	7.38	7.23	6.76		6.41	6.08	5.87	5.63	5.52	5.29	6.30		7.42	6.40	5.67
H1 lead leg	L	strides	25	17	17	17	18		18	19	19	20	20	24	214				
Yang Xinyue (CHN) (2001)		time	7.10	11.96	16.90	21.82	26.96		32.32	38.12	44.34	50.68	57.28		65.56	8 / 6			
reaction time	0.174	interval		4.86	4.94	4.92	5.14		5.36	5.80	6.22	6.34	6.60	8.28			14.72	16.30	19.16
		velocity	6.34	7.20	7.09	7.11	6.81		6.53	6.03	5.63	5.52	5.30	4.83	6.10		7.13	6.44	5.48
H1 lead leg	L	strides	24	17	17	17	17		17	19	19	19	19		185				

2019 Pan American Games (Lima, PER) (TV Analysis)

FINAL

date 08-Aug-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Watson, Sage (CAN) (1994)		time	6.34	10.52	14.76	19.10			28.20	33.03	38.13	43.33	48.82		55.16	6 / 1			
reaction time	0.220	interval		4.18	4.24	4.34			9.10	4.83	5.10	5.20	5.49	6.34			12.76	13.93	15.79
		velocity	7.10	8.37	8.25	8.06			7.69	7.25	6.86	6.73	6.38	6.31	7.25		8.23	7.54	6.65
H1 lead leg	R	strides	22	15	15	15				15	16	16	17	20	151				
Cockrell, Anna (USA) (1997)		time	6.34	10.38	14.83	19.38	24.03		28.79	33.72	38.76	43.89			55.50	8 / 2			
reaction time	0.247	interval		4.04	4.45	4.55	4.65		4.76	4.93	5.04	5.13					13.04	14.34	
		velocity	7.10	8.66	7.87	7.69	7.53		7.35	7.10	6.94	6.82			7.21		8.05	7.32	
H1 lead leg	L	strides	22	14	15	15	15		15	15	16	16			143				
Clayton, Rushell (JAM) (199		time	6.38	10.44	14.65	18.96			28.24	33.14	38.27	43.58	49.00		55.53	4 / 3			

reaction time	0.188	interval		4.06	4.21	4.31		9.28	4.90	5.13	5.31	5.42	6.53			12.58	14.18	15.86
		velocity	7.05	8.62	8.31	8.12		7.54	7.14	6.82	6.59	6.46	6.13	7.20		8.35	7.40	6.62
H1 lead leg	L	strides	23	15	15	15			16	16	17	17	21.2	155.2				

2019 Japanese National High School Championships (Okinawa, JPN)

FINAL date 06-Aug-19

Kota (2019) - 72nd high school championships: JAF scientific committee - biomechanics data collection

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tsugawa, Rui (JPN) (2001)	time	6.85	11.38	16.03	20.82	25.66		30.65	35.60	40.60	46.03	51.73		58.14	3 / 1			
reaction time	interval		4.53	4.65	4.79	4.84		4.99	4.95	5.00	5.43	5.70	6.41	PB		13.97	14.78	16.13
	velocity	6.57	7.73	7.53	7.31	7.23		7.01	7.07	7.00	6.45	6.14	6.24	6.88		7.52	7.10	6.51
H1 lead leg	strides		17	17	17	17		17	17	17	19	19		157				
Tawa, Rina (JPN) (2002)	time	6.88	11.48	16.07	20.79	25.88		30.93	36.20	41.54	46.92	52.43		58.60	4 / 2			
reaction time	interval		4.60	4.59	4.72	5.09		5.05	5.27	5.34	5.38	5.51	6.17	PB		13.91	15.41	16.23
	velocity	6.54	7.61	7.63	7.42	6.88		6.93	6.64	6.55	6.51	6.35	6.48	6.83		7.55	6.81	6.47
H1 lead leg	strides		16	16	16	17		17	18	18	18	18		154				
Nakano, Nano (JPN) (2001)	time	6.95	11.56	16.27	21.09	26.03		31.21	36.40	41.68	47.19	52.70		58.92	5 / 3			
reaction time	interval		4.61	4.71	4.82	4.94		5.18	5.19	5.28	5.51	5.51	6.22	PB		14.14	15.31	16.30
	velocity	6.47	7.59	7.43	7.26	7.09		6.76	6.74	6.63	6.35	6.35	6.43	6.79		7.43	6.86	6.44
H1 lead leg	strides		17	17	17	17		19	19	19	19	19		163				
Aoki, Honoka (JPN) (2001)	time	6.83	11.39	16.05	20.80	25.78		30.91	36.07	41.42	46.97	52.71		58.94	8 / 4			
reaction time	interval		4.56	4.66	4.75	4.98		5.13	5.16	5.35	5.55	5.74	6.23			13.97	15.27	16.64
	velocity	6.59	7.68	7.51	7.37	7.03		6.82	6.78	6.54	6.31	6.10	6.42	6.79		7.52	6.88	6.31
H1 lead leg	strides		17	17	17	17		17	17	18	18	18		156				
Shimizu, Hana (JPN) (2001)	time	6.80	11.33	15.97	20.79	25.85		31.01	36.14	41.31	46.85	52.55		59.07	6 / 5			
reaction time	interval		4.53	4.64	4.82	5.06		5.16	5.13	5.17	5.54	5.70	6.52	PB		13.99	15.35	16.41
	velocity	6.62	7.73	7.54	7.26	6.92		6.78	6.82	6.77	6.32	6.14	6.13	6.77		7.51	6.84	6.40
H1 lead leg	strides		17	17	17	17		17	17	17	19	19		157				
Saka, Nozomi (JPN) (2001)	time	6.67	11.16	15.75	20.47	25.38		30.53	35.72	41.02	46.60	52.63		59.48	2 / 6			
reaction time	interval		4.49	4.59	4.72	4.91		5.15	5.19	5.30	5.58	6.03	6.85	PB		13.80	15.25	16.91
	velocity	6.75	7.80	7.63	7.42	7.13		6.80	6.74	6.60	6.27	5.80	5.84	6.72		7.61	6.89	6.21
H1 lead leg	strides		16	16	16	16		17	17	17	17	19		151				
Kawamura, Yuka (JPN) (2001	time	6.83	11.46	16.18	20.97	25.95		31.16	36.37	41.61	47.20	53.00		59.91	7 / 7			
reaction time	interval		4.63	4.72	4.79	4.98		5.21	5.21	5.24	5.59	5.80	6.91			14.14	15.40	16.63
	velocity	6.59	7.56	7.42	7.31	7.03		6.72	6.72	6.68	6.26	6.03	5.79	6.68		7.43	6.82	6.31
H1 lead leg	strides		17	17	17	17		17	17	18	18	19		157				
Shiomi, Mikoto (JPN) (2001)	time	6.93	11.75	16.60	21.62	26.77		32.08	37.50	42.88	48.38	54.04		59.96	1 / 8			
reaction time	interval		4.82	4.85	5.02	5.15		5.31	5.42	5.38	5.50	5.66	5.92			14.69	15.88	16.54
	velocity	6.49	7.26	7.22	6.97	6.80		6.59	6.46	6.51	6.36	6.18	6.76	6.67		7.15	6.61	6.35
H1 lead leg	strides		17	17	17	17		18	18	18	18	18		158				

2019 Chinese World Championship Trials (Shenyang, CHN)

FINAL date 03-Aug-19

CAA Hurdle Development (2019)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)	time	6.96	11.51	16.23	21.00	25.89		30.95	36.14	41.42	46.85	52.29		58.39	1 / 1			
reaction time 0.263	interval		4.55	4.72	4.77	4.89		5.06	5.19	5.28	5.43	5.44	6.10			14.04	15.14	16.15
	velocity	6.47	7.69	7.42	7.34	7.16		6.92	6.74	6.63	6.45	6.43	6.56	6.85		7.48	6.94	6.50
H1 lead leg L	strides	24	17	17	17	17		17	18	18	18	18	22	203				
Lan Tianlu (CHN) (1999)	time	6.88	11.56	16.26	21.08	26.04		31.22	36.42	41.70	46.98	52.36		58.48	7 / 2			
reaction time 0.256	interval		4.68	4.70	4.82	4.96		5.18	5.20	5.28	5.28	5.38	6.12	PB		14.20	15.34	15.94
	velocity	6.54	7.48	7.45	7.26	7.06		6.76	6.73	6.63	6.63	6.51	6.54	6.84		7.39	6.84	6.59
H1 lead leg L	strides	23	16	16	16	16		17	17	17	17	17	21	193				
Lu Zhangwei (CHN) (2001)	time	6.88	11.38	15.98	20.72	25.62		30.72	35.94	41.30	46.92	52.54		58.90	6 / 3			
reaction time 0.275	interval		4.50	4.60	4.74	4.90		5.10	5.22	5.36	5.62	5.62	6.36	PB		13.84	15.22	16.60
	velocity	6.54	7.78	7.61	7.38	7.14		6.86	6.70	6.53	6.23	6.23	6.29	6.79		7.59	6.90	6.33
H1 lead leg R	strides	24	17	17	17	17		17	17	17	18	18	22.2	201.2				
Ding Yirui (CHN) (2002)	time	6.84	11.33	15.98	20.69	25.64		30.86	36.24	41.77	47.50	53.12		59.63	2 / 4			
reaction time 0.245	interval		4.49	4.65	4.71	4.95		5.22	5.38	5.53	5.73	5.62	6.51	PB		13.85	15.55	16.88
	velocity	6.58	7.80	7.53	7.43	7.07		6.70	6.51	6.33	6.11	6.23	6.14	6.71		7.58	6.75	6.22
H1 lead leg L	strides	23	15	15	15	16		16	17	17	17	17	21	189				
Wu Fangfang (CHN) (1997)	time	6.96	11.65	16.32	21.12	26.11		31.35	36.65	42.16	47.73	53.52		60.01	5 / 5			
reaction time 0.244	interval		4.69	4.67	4.80	4.99		5.24	5.30	5.51	5.57	5.79	6.49			14.16	15.53	16.87
	velocity	6.47	7.46	7.49	7.29	7.01		6.68	6.60	6.35	6.28	6.04	6.16	6.67		7.42	6.76	6.22
H1 lead leg L	strides	24	16	16	16	16		17	17	17	17	17	21.5	194.5				
Chen Liying (CHN) (1994)	time	6.84	11.45	16.07	20.82	25.68		30.76	36.07	41.54	47.29	53.34		60.13	4 / 6			
reaction time 0.185	interval		4.61	4.62	4.75	4.86		5.08	5.31	5.47	5.75	6.05	6.79	PB		13.98	15.25	17.27
	velocity	6.58	7.59	7.58	7.37	7.20		6.89	6.59	6.40	6.09	5.79	5.89	6.65		7.51	6.89	6.08
H1 lead leg R	strides	24	16	16	16	16		17	17	17	18	19	22.2	198.2				

Hu Lihong (CHN) (1999)		time	7.02	11.66	16.36	21.08	26.00	31.02	36.22	41.60	47.22	53.10		60.34	8 / 7			
reaction time	0.231	interval		4.64	4.70	4.72	4.92	5.02	5.20	5.38	5.62	5.88	7.24			14.06	15.14	16.88
		velocity	6.41	7.54	7.45	7.42	7.11	6.97	6.73	6.51	6.23	5.95	5.52	6.63		7.47	6.94	6.22
H1 lead leg	L	strides	23	16	16	16	16	16	16	17	17	17	21	191				
Liu Hongjuan (CHN) (1996)		time	7.02	11.78	16.57	21.44	26.46	31.68	37.02	42.61	48.28	54.20		61.02	3 / 8			
reaction time	0.251	interval		4.76	4.79	4.87	5.02	5.22	5.34	5.59	5.67	5.92	6.82			14.42	15.58	17.18
		velocity	6.41	7.35	7.31	7.19	6.97	6.70	6.55	6.26	6.17	5.91	5.87	6.56		7.28	6.74	6.11
H1 lead leg	L	strides	23	16	16	16	16	17	17	18	18	19	22.2	198.2				

Heat 2

date 03-Aug-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Lu Zhangwei (CHN) (2001)		time	6.90	11.48	16.26	21.12	26.16		31.46	36.78	42.16	47.74	53.38		59.81	6 / 1			
reaction time	0.229	interval		4.58	4.78	4.86	5.04		5.30	5.32	5.38	5.58	5.64	6.43			14.22	15.66	16.60
		velocity	6.52	7.64	7.32	7.20	6.94		6.60	6.58	6.51	6.27	6.21	6.22	6.69		7.38	6.70	6.33
H1 lead leg	R	strides	24	17	17	17	17		17	17	17	18	18	21.5	200.5				
Chen Liying (CHN) (1994)		time	6.92	11.63	16.31	21.08	25.93		31.08	36.52	42.07	47.70	53.55		60.34	1 / 2			
reaction time	0.193	interval		4.71	4.68	4.77	4.85		5.15	5.44	5.55	5.63	5.85	6.79			14.16	15.44	17.03
		velocity	6.50	7.43	7.48	7.34	7.22		6.80	6.43	6.31	6.22	5.98	5.89	6.63		7.42	6.80	6.17
H1 lead leg	R	strides	24	16	16	16	16		17	18	18	18	18	22	199				
Hu Lihong (CHN) (1999)		time	7.08	11.80	16.68	21.54	26.54		31.72	36.88	42.26	47.84	53.62		60.44	8 / 3			
reaction time	0.229	interval		4.72	4.88	4.86	5.00		5.18	5.16	5.38	5.58	5.78	6.82			14.46	15.34	16.74
		velocity	6.36	7.42	7.17	7.20	7.00		6.76	6.78	6.51	6.27	6.06	5.87	6.62		7.26	6.84	6.27
H1 lead leg	L	strides	23	16	16	16	16		16	16	17	17	17	20.7	190.7				
Huang Yan (CHN) (1996)		time	6.96	11.79	16.55	21.31	26.26		31.50	36.85	42.24	47.98	53.89		60.51	3 / 4			
reaction time	0.212	interval		4.83	4.76	4.76	4.95		5.24	5.35	5.39	5.74	5.91	6.62			14.35	15.54	17.04
		velocity	6.47	7.25	7.35	7.35	7.07		6.68	6.54	6.49	6.10	5.92	6.04	6.61		7.32	6.76	6.16
H1 lead leg	L	strides	25	17	17	17	17		18	18	18	19	19	21.7	206.7				
Ding Yirui (CHN) (2002)		time	6.84	11.46	16.33	21.29	26.44		31.95	37.29	42.71	48.26	54.09		60.85	4 / 5			
reaction time	0.250	interval		4.62	4.87	4.96	5.15		5.51	5.34	5.42	5.55	5.83	6.76			14.45	16.00	16.80
		velocity	6.58	7.58	7.19	7.06	6.80		6.35	6.55	6.46	6.31	6.00	5.92	6.57		7.27	6.56	6.25
H1 lead leg	L	strides	23	15	16	16	17		17	17	17	17	18	21.2	194.2				
Jiang Liyunzhe (CHN) (2002		time	7.02	11.97	17.02	22.26	27.58		33.10	38.52	44.02	49.66	55.60		62.33	7 / 6			
reaction time	0.179	interval		4.95	5.05	5.24	5.32		5.52	5.42	5.50	5.64	5.94	6.73			15.24	16.26	17.08
		velocity	6.41	7.07	6.93	6.68	6.58		6.34	6.46	6.36	6.21	5.89	5.94	6.42		6.89	6.46	6.15
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	20.5	193.5				
Zhou Yu (CHN) (1999)		time	7.09	11.86	16.75	21.71	26.78		32.23	37.76	43.57	49.56	55.67		62.55	5 / 7			
reaction time	0.236	interval		4.77	4.89	4.96	5.07		5.45	5.53	5.81	5.99	6.11	6.88			14.62	16.05	17.91
		velocity	6.35	7.34	7.16	7.06	6.90		6.42	6.33	6.02	5.84	5.73	5.81	6.39		7.18	6.54	5.86
H1 lead leg	R	strides	25	16	16	16	16		17	17	18	19	19	22	201				

Heat 1

date 03-Aug-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Liu Hongjuan (CHN) (1996)		time	7.09	11.84	16.70	21.70	26.83		32.22	37.74	43.24	49.02	54.87		61.69	4 / 1			
reaction time	0.228	interval		4.75	4.86	5.00	5.13		5.39	5.52	5.50	5.78	5.85	6.82			14.61	16.04	17.13
		velocity	6.35	7.37	7.20	7.00	6.82		6.49	6.34	6.36	6.06	5.98	5.87	6.48		7.19	6.55	6.13
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18	21.2	195.2				
Wu Fangfang (CHN) (1997)		time	7.19	12.04	17.00	22.09	27.68		33.58	39.51	45.71	52.10	58.41		65.54	5 / 2			
reaction time	0.247	interval		4.85	4.96	5.09	5.59		5.90	5.93	6.20	6.39	6.31	7.13			14.90	17.42	18.90
		velocity	6.26	7.22	7.06	6.88	6.26		5.93	5.90	5.65	5.48	5.55	5.61	6.10		7.05	6.03	5.56
H1 lead leg	L	strides	24	16	16	16	18		19	17	19	19	19	21.2	204.2				
Lan Tianlu (CHN) (1999)		time	7.16	12.16	17.21	22.51	27.91		33.67	39.97	46.15	52.55	58.93		66.40	2 / 3			
reaction time	0.269	interval		5.00	5.05	5.30	5.40		5.76	6.30	6.18	6.40	6.38	7.47			15.35	17.46	18.96
		velocity	6.28	7.00	6.93	6.60	6.48		6.08	5.56	5.66	5.47	5.49	5.35	6.02		6.84	6.01	5.54
H1 lead leg	L	strides	23	16	16	16	16		17	18	18	18	18	22	198				

2019 USATF National Championships (Des Moines, IA)

Henson (2020) - Athlete First: 2019 year end hurdle report

FINAL

date 28-Jul-19 — *Vazel (2019) - statistical analysis and historical context of the new 400H world record*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.25	10.15	14.27	18.48	22.79		27.19	31.66	36.39	41.26	46.32		52.20	4 / 1			*Vazel (2019)*
reaction time	0.287	interval		3.90	4.12	4.21	4.31		4.40	4.47	4.73	4.87	5.06	5.88	**WR**		12.23	13.18	14.66
		velocity	7.20	8.97	8.50	8.31	8.12		7.95	7.83	7.40	7.19	6.92	6.80	7.66		8.59	7.97	7.16
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	20	181				
McLaughlin, Sydney (USA) (		time	6.37	10.54	14.71	18.98	23.32		28.12	32.72	37.52	42.55	47.52		52.88	6 / 2			*Henson (2020)*
reaction time	0.198	interval		4.17	4.17	4.27	4.34		4.80	4.60	4.80	5.03	4.97	5.36			12.61	13.74	14.80
		velocity	7.06	8.39	8.39	8.20	8.06		7.29	7.61	7.29	6.96	7.04	7.46	7.56		8.33	7.64	7.09
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	18.5	178.5				
Spencer, Ashley (USA) (1993		time	6.57	10.74	14.98	19.32	23.76			33.13	37.60	42.44	47.34		53.11	3 / 3			*Henson (2020)*

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time	0.202	interval		4.17	4.24	4.34	4.44		9.37	4.47	4.84	4.90	5.77	=PB		12.75	13.81	14.21
		velocity	6.85	8.39	8.25	8.06	7.88		7.47	7.83	7.23	7.14	6.93	7.53		8.24	7.60	7.39
H1 lead leg	L	strides	22	15	15	15	15			15	15	15	18.2	145.2				
Little, Shamier (USA) (1995)		time	6.15	10.11	14.28	18.45	22.78	27.36	32.13	37.07	42.10	47.34		53.91	5 / 4		*Henson (2020)*	
reaction time	0.198	interval		3.96	4.17	4.17	4.33	4.58	4.77	4.94	5.03	5.24	6.57			12.30	13.68	15.21
		velocity	7.32	8.84	8.39	8.39	8.08	7.64	7.34	7.09	6.96	6.68	6.09	7.42		8.54	7.68	6.90
H1 lead leg	L	strides	23	14	14	14	14	15	16	16	16	17	21	180				
Tate, Cassandra (USA) (1990		0.224	no information available											54.91	7 / 5			
Cockrell, Anna (USA) (1997)		0.204	no information available											56.14	2 / 6			
Seymour, Kiah (USA) (1994)		0.207	no information available											56.24	8 / 7			
Bookman, Deonca (USA) (19		0.270	no information available											57.37	1 / 8			

2019 Müller Anniversary Games (London, GBR) (TV Analysis)

FINAL date 21-Jul-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Clayton, Rushell (JAM) (199		time	6.52	10.70	15.00	19.40	23.92		28.64	33.48	38.40	43.36	48.36		54.16	4 / 1			
reaction time	0.165	interval		4.18	4.30	4.40	4.52		4.72	4.84	4.92	4.96	5.00	5.80	PB		12.88	14.08	14.88
		velocity	6.90	8.37	8.14	7.95	7.74		7.42	7.23	7.11	7.06	7.00	6.90	7.39		8.15	7.46	7.06
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.5	181.5				
Hejnová, Zuzana (CZE) (198		time	6.60	10.88	15.24	19.68	24.20		28.80	33.48	38.28	43.24	48.28		54.33	5 / 2			
reaction time	0.150	interval		4.28	4.36	4.44	4.52		4.60	4.68	4.80	4.96	5.04	6.05			13.08	13.80	14.80
		velocity	6.82	8.18	8.03	7.88	7.74		7.61	7.48	7.29	7.06	6.94	6.61	7.36		8.03	7.61	7.09
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Belle, Tia Adana (BAR) (199		time	6.44	10.64	14.88	19.28	23.84		28.48	33.32	38.28	43.36	48.56		54.54	7 / 3			
reaction time	0.152	interval		4.20	4.24	4.40	4.56		4.64	4.84	4.96	5.08	5.20	5.98			12.84	14.04	15.24
		velocity	6.99	8.33	8.25	7.95	7.68		7.54	7.23	7.06	6.89	6.73	6.69	7.33		8.18	7.48	6.89
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.7	181.7				
Ryzhykova, Anna (UKR) (19		time	6.60	10.80	15.04	19.40	23.92		28.60	33.40	38.32	43.40	48.56		54.64	2 / 4			
reaction time	0.158	interval		4.20	4.24	4.36	4.52		4.68	4.80	4.92	5.08	5.16	6.08			12.80	14.00	15.16
		velocity	6.82	8.33	8.25	8.03	7.74		7.48	7.29	7.11	6.89	6.78	6.58	7.32		8.20	7.50	6.93
H1 lead leg	R	strides	22	14	14	14	15		15	15	15	15	16	19.5	174.5				
Russell, Janieve (JAM) (1993		time	6.52	10.72	15.12	19.64	24.16		28.84	33.52	38.44	43.48	48.76		55.14	6 / 5			
reaction time	0.162	interval		4.20	4.40	4.52	4.52		4.68	4.68	4.92	5.04	5.28	6.38			13.12	13.88	15.24
		velocity	6.90	8.33	7.95	7.74	7.74		7.48	7.48	7.11	6.94	6.63	6.27	7.25		8.00	7.56	6.89
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20.2	181.2				
Beesley, Meghan (GBR) (198		time	6.44	10.64	15.00	19.40	23.92		28.60	33.44	38.48	43.80	49.12		55.20	8 / 6			
reaction time	0.152	interval		4.20	4.36	4.40	4.52		4.68	4.84	5.04	5.32	5.32	6.08			12.96	14.04	15.68
		velocity	6.99	8.33	8.03	7.95	7.74		7.48	7.23	6.94	6.58	6.58	6.58	7.25		8.10	7.48	6.70
H1 lead leg	R	strides	24	16	16	16	16			17	17	18	18	22.5	180.5				
Watson, Sage (CAN) (1994)		time	6.40	10.56	14.80	19.12	23.52		28.20	33.08	38.20	43.60	49.12		55.32	9 / 7			
reaction time	0.180	interval		4.16	4.24	4.32	4.40		4.68	4.88	5.12	5.40	5.52	6.20			12.72	13.96	16.04
		velocity	7.03	8.41	8.25	8.10	7.95		7.48	7.17	6.84	6.48	6.34	6.45	7.23		8.25	7.52	6.55
H1 lead leg	R	strides	22	15	15	15	15			16	16	17	17	20	168				
Nel, Wenda (RSA) (1988)		time	6.60	10.96	15.44	20.04	24.68		29.36	34.28	39.28	44.48	50.04		56.39	1 / 8			
reaction time	0.175	interval		4.36	4.48	4.60	4.64		4.68	4.92	5.00	5.20	5.56	6.35			13.44	14.24	15.76
		velocity	6.82	8.03	7.81	7.61	7.54		7.48	7.11	7.00	6.73	6.29	6.30	7.09		7.81	7.37	6.66
H1 lead leg	L	strides	23	16		16	16		16	17	17	17	18		156				

2019 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)

FINAL date 12-Jul-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.26	10.44	14.74	19.08	23.54	25.4	28.06	32.68	37.60	42.58	47.68		53.32	4 / 1			
reaction time	0.151	interval		4.18	4.30	4.34	4.46		4.52	4.62	4.92	4.98	5.10	5.64			12.82	13.60	15.00
		velocity	7.19	8.37	8.14	8.06	7.85	7.87	7.74	7.58	7.11	7.03	6.86	7.09	7.50		8.19	7.72	7.00
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	18.5	179.5				
Spencer, Ashley (USA) (1993		time	6.42	10.68	15.06	19.52	24.06	26.1		33.32	38.16	43.34	48.50		54.46	3 / 2			
reaction time	0.152	interval		4.26	4.38	4.46	4.54			9.26	4.84	5.18	5.16	5.96			13.10	13.80	15.18
		velocity	7.01	8.22	7.99	7.85	7.71	7.66		7.56	7.23	6.76	6.78	6.71	7.34		8.02	7.61	6.92
H1 lead leg	L	strides	22	15	15	15	15				15	16	16	18.5	147.5				
Hejnová, Zuzana (CZE) (198		time	6.58	10.86	15.14	19.50	23.98	25.9	28.58	33.34	38.28	43.34	48.46		54.55	6 / 3			
reaction time	0.162	interval		4.28	4.28	4.36	4.48		4.60	4.76	4.94	5.06	5.12	6.09			12.92	13.84	15.12
		velocity	6.84	8.18	8.18	8.03	7.81	7.72	7.61	7.35	7.09	6.92	6.84	6.57	7.33		8.13	7.59	6.94
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20.2	180.2				
Russell, Janieve (JAM) (1993		time	6.40	10.68	15.08	19.60	24.20	26.2		33.54	38.44	43.48	48.64		54.70	5 / 4			
reaction time	0.150	interval		4.28	4.40	4.52	4.60			9.34	4.90	5.04	5.16	6.06			13.20	13.94	15.10
		velocity	7.03	8.18	7.95	7.74	7.61	7.63		7.49	7.14	6.94	6.78	6.60	7.31		7.95	7.53	6.95
H1 lead leg	R	strides	22	15	15	15	15				16	16	16	20	150				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Clayton, Rushell (JAM) (199		time	6.48	10.56	14.80	19.20		25.6		33.24	38.32	43.56	48.84		54.82	1 / 5			
reaction time	0.183	interval		4.08	4.24	4.40				14.04	5.08	5.24	5.28	5.98			12.72	14.04	15.60
		velocity	6.94	8.58	8.25	7.95		7.81		7.48	6.89	6.68	6.63	6.69	7.30		8.25	7.48	6.73
H1 lead leg	L	strides	22	15	15	15					16	17	17	19.5	136.5				
Sprunger, Leá (SUI) (1990)		time	6.44	10.72	15.08	19.48	24.04	26.0		33.76	38.88	44.24	49.60		55.60	2 / 6			
reaction time	0.143	interval		4.28	4.36	4.40	4.56			9.72	5.12	5.36	5.36	6.00			13.04	14.28	15.84
		velocity	6.99	8.18	8.03	7.95	7.68	7.69		7.20	6.84	6.53	6.53	6.67	7.19		8.05	7.35	6.63
H1 lead leg	R	strides	21	14	14	14	14				15	16	16	18.7	142.7				
Carter, Kori (USA) (1992)		time	6.28	10.48	14.80	19.16	23.72	25.7		33.44	38.56	43.80	49.20		55.63	7 / 7			
reaction time	0.140	interval		4.20	4.32	4.36	4.56			9.72	5.12	5.24	5.40	6.43			12.88	14.28	15.76
		velocity	7.17	8.33	8.10	8.03	7.68	7.78		7.20	6.84	6.68	6.48	6.22	7.19		8.15	7.35	6.66
H1 lead leg	L	strides	23	15	15	15	15				17	17	17	20.2	154.2				
Ryzhykova, Anna (UKR) (19		time	6.56	10.80	15.10	19.52		26.3	29.04	34.08	39.16	44.36	49.64		55.65	8 / 8			
reaction time	0.170	interval		4.24	4.30	4.42			9.52	5.04	5.08	5.20	5.28	6.01			12.96	14.56	15.56
		velocity	6.86	8.25	8.14	7.92		7.60	7.35	6.94	6.89	6.73	6.63	6.66	7.19		8.10	7.21	6.75
H1 lead leg	R	strides	22	14	14	14				15	15	15	16		125				

2019 Chinese National Championships (Shenyang, CHN)

FINAL

date 10-Jul-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.61	10.89	15.28	19.87	24.55		29.46	34.47	39.59	44.93	50.61		56.70	3 / 1			
reaction time	0.293	interval		4.28	4.39	4.59	4.68		4.91	5.01	5.12	5.34	5.68	6.09	PB		13.26	14.60	16.14
		velocity	6.81	8.18	7.97	7.63	7.48		7.13	6.99	6.84	6.55	6.16	6.57	7.05		7.92	7.19	6.51
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21.5	196.5				
Zhou Yu (CHN) (1999)		time	6.72	11.14	15.80	20.53	25.39		30.30	35.35	40.52	46.00	51.60		58.04	5 / 2			
reaction time	0.210	interval		4.42	4.66	4.73	4.86		4.91	5.05	5.17	5.48	5.60	6.44	PB		13.81	14.82	16.25
		velocity	6.70	7.92	7.51	7.40	7.20		7.13	6.93	6.77	6.39	6.25	6.21	6.89		7.60	7.09	6.46
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	18	18	22.2	196.2				
Huang Yan (CHN) (1996)		time	6.77	11.26	15.83	20.45	25.21		30.08	35.05	40.32	45.88	51.53		58.11	4 / 3			
reaction time	0.199	interval		4.49	4.57	4.62	4.76		4.87	4.97	5.27	5.56	5.65	6.58			13.68	14.60	16.48
		velocity	6.65	7.80	7.66	7.58	7.35		7.19	7.04	6.64	6.29	6.19	6.08	6.88		7.68	7.19	6.37
H1 lead leg	L	strides	24	17	17	17	17		17	17	18	19	19	23.2	205.2				
Lan Tianlu (CHN) (1999)		time	6.87	11.47	16.10	20.73	25.52		30.56	35.67	40.97	46.41	52.23		58.79	6 / 4			
reaction time	0.203	interval		4.60	4.63	4.63	4.79		5.04	5.11	5.30	5.44	5.82	6.56	PB		13.86	14.94	16.56
		velocity	6.55	7.61	7.56	7.56	7.31		6.94	6.85	6.60	6.43	6.01	6.10	6.80		7.58	7.03	6.34
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	18	21.7	194.7				
Wu Fangfang (CHN) (1997)		time	6.92	11.51	16.15	20.90	25.72		30.78	35.98	41.34	46.79	52.45		58.84	1 / 5			
reaction time	0.225	interval		4.59	4.64	4.75	4.82		5.06	5.20	5.36	5.45	5.66	6.39	PB		13.98	15.08	16.47
		velocity	6.50	7.63	7.54	7.37	7.26		6.92	6.73	6.53	6.42	6.18	6.26	6.80		7.51	6.96	6.38
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	22	195				
Lu Zhangwei (CHN) (2001)		time	6.84	11.24	15.85	20.58	25.44		30.48	35.67	41.02	46.70	52.48		59.05	2 / 6			
reaction time	0.273	interval		4.40	4.61	4.73	4.86		5.04	5.19	5.35	5.68	5.78	6.57	PB		13.74	15.09	16.81
		velocity	6.58	7.95	7.59	7.40	7.20		6.94	6.74	6.54	6.16	6.06	6.09	6.77		7.64	6.96	6.25
H1 lead leg	R	strides	24	17	17	17	17		17	17	17	18	18	22.5	201.5				
Ou Ying (CHN) (2001)		time	6.94	11.52	16.18	20.94	25.89		31.06	36.37	41.77	47.26	52.93		59.30	7 / 7			
reaction time	0.245	interval		4.58	4.66	4.76	4.95		5.17	5.31	5.40	5.49	5.67	6.37			14.00	15.43	16.56
		velocity	6.48	7.64	7.51	7.35	7.07		6.77	6.59	6.48	6.38	6.17	6.28	6.75		7.50	6.80	6.34
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	18	21.2	199.2				
Liu Xin (CHN) (1992)		time	7.20	11.86	16.82	21.95	27.32		33.01	38.72	44.56				64.88	8 / 8			
reaction time	0.428	interval		4.66	4.96	5.13	5.37		5.69	5.71	5.84						14.75	16.77	
		velocity	6.25	7.51	7.06	6.82	6.52		6.15	6.13	5.99				6.17		7.12	6.26	
H1 lead leg	L	strides	25	17	17	17	18		18	19	19				150				

Heat 3

date 09-Jul-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.70	11.18	15.71	20.42	25.21		30.23	35.42	40.81	46.51	52.27		58.75	4 / 1			
reaction time	0.295	interval		4.48	4.53	4.71	4.79		5.02	5.19	5.39	5.70	5.76	6.48			13.72	15.00	16.85
		velocity	6.72	7.81	7.73	7.43	7.31		6.97	6.74	6.49	6.14	6.08	6.17	6.81		7.65	7.00	6.23
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21.2	196.2				
Ou Ying (CHN) (2001)		time	7.19	11.86	16.65	21.52	26.57		31.80	37.03	42.34	47.81	53.40		59.61	8 / 2			
reaction time	0.299	interval		4.67	4.79	4.87	5.05		5.23	5.23	5.31	5.47	5.59	6.21			14.33	15.51	16.37
		velocity	6.26	7.49	7.31	7.19	6.93		6.69	6.69	6.59	6.40	6.26	6.44	6.71		7.33	6.77	6.41
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	18	21.2	199.2				
Wu Fangfang (CHN) (1997)		time	6.99	11.71	16.41	21.28	26.24		31.40	36.62	41.94	47.64	53.13		59.64	5 / 3			
reaction time	0.226	interval		4.72	4.70	4.87	4.96		5.16	5.22	5.32	5.70	5.49	6.51			14.29	15.34	16.51
		velocity	6.44	7.42	7.45	7.19	7.06		6.78	6.70	6.58	6.14	6.38	6.14	6.71		7.35	6.84	6.36

H1 lead leg	L	strides	24	16	16	16	16	17	17	17	17	17	21.5	194.5				
Lu Zhangwei (CHN) (2001)		time	6.90	11.39	15.96	20.75	25.67	30.81	36.15	41.50	47.17	53.13		60.11	6 / 4			
reaction time	0.244	interval		4.49	4.57	4.79	4.92	5.14	5.34	5.35	5.67	5.96	6.98			13.85	15.40	16.98
		velocity	6.52	7.80	7.66	7.31	7.11	6.81	6.55	6.54	6.17	5.87	5.73	6.65		7.58	6.82	6.18
H1 lead leg	R	strides	24	17	17	17	17	17	17	17	18	19	23	203				
Wang Jiahui (CHN) (2000)		time	6.95	11.64	16.46	21.42	26.52	31.76	37.25	42.92	48.66	54.49		60.97	7 / 5			
reaction time	0.213	interval		4.69	4.82	4.96	5.10	5.24	5.49	5.67	5.74	5.83	6.48	PB		14.47	15.83	17.24
		velocity	6.47	7.46	7.26	7.06	6.86	6.68	6.38	6.17	6.10	6.00	6.17	6.56		7.26	6.63	6.09
H1 lead leg	R	strides	23	17	17	17	17	17	18	18	19	19	22.2	204.2				
Huo Xinghua (CHN) (1996)		time	6.94	11.39	16.08	20.97	26.06	31.50	37.13	43.19	49.60	56.17		64.20	3 / 6			
reaction time	0.371	interval		4.45	4.69	4.89	5.09	5.44	5.63	6.06	6.41	6.57	8.03			14.03	16.16	19.04
		velocity	6.48	7.87	7.46	7.16	6.88	6.43	6.22	5.78	5.46	5.33	4.98	6.23		7.48	6.50	5.51
H1 lead leg	L	strides	23	15	16	16	16	17	17	18	19	19	24	200				

Heat 2

date 09-Jul-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)		time	6.85	11.41	16.13	20.89	25.71		30.64	35.92	41.24	46.88	52.65		59.33	4 / 1			
reaction time	0.225	interval		4.56	4.72	4.76	4.82		4.93	5.28	5.32	5.64	5.77	6.68			14.04	15.03	16.73
		velocity	6.57	7.68	7.42	7.35	7.26		7.10	6.63	6.58	6.21	6.07	5.99	6.74		7.48	6.99	6.28
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	19	19	23	206				
Lan Tianlu (CHN) (1999)		time	6.90	11.52	16.16	20.99	25.86		30.90	36.03	41.34	46.88	52.68		59.40	7 / 2			
reaction time	0.228	interval		4.62	4.64	4.83	4.87		5.04	5.13	5.31	5.54	5.80	6.72	PB		14.09	15.04	16.65
		velocity	6.52	7.58	7.54	7.25	7.19		6.94	6.82	6.59	6.32	6.03	5.95	6.73		7.45	6.98	6.31
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	18	21.5	194.5				
Jiang Liyunzhe (CHN) (2002)		time	6.79	11.47	16.20	21.20	26.16		31.24	36.42	41.67	47.23	53.08		59.69	6 / ~~3~~			
reaction time	0.180	interval		4.68	4.73	5.00	4.96		5.08	5.18	5.25	5.56	5.85	6.61	DQ		14.41	15.22	16.66
		velocity	6.63	7.48	7.40	7.00	7.06		6.89	6.76	6.67	6.29	5.98	6.05	6.70		7.29	6.90	6.30
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	18	20.5	194.5				
Hu Lihong (CHN) (1999)		time	6.94	11.51	16.26	21.05	25.96		31.13	36.33	41.66	47.29	53.35		60.39	5 / ~~4~~ 3			
reaction time	0.211	interval		4.57	4.75	4.79	4.91		5.17	5.20	5.33	5.63	6.06	7.04			14.11	15.28	17.02
		velocity	6.48	7.66	7.37	7.31	7.13		6.77	6.73	6.57	6.22	5.78	5.68	6.62		7.44	6.87	6.17
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	21	193				
Tao Xue (CHN) (1999)		time	7.09	11.73	16.43	21.18	26.07		31.21	36.53	42.03	47.84	53.95		61.55	3 / ~~5~~ 4			
reaction time	0.286	interval		4.64	4.70	4.75	4.89		5.14	5.32	5.50	5.81	6.11	7.60			14.09	15.35	17.42
		velocity	6.35	7.54	7.45	7.37	7.16		6.81	6.58	6.36	6.02	5.73	5.26	6.50		7.45	6.84	6.03
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	18	22	195				

Heat 1

date 09-Jul-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zhou Yu (CHN) (1999)		time	6.82	11.32	15.98	20.72	25.57		30.53	35.68	41.00	46.56	52.17		58.71	8 / 1			
reaction time	0.239	interval		4.50	4.66	4.74	4.85		4.96	5.15	5.32	5.56	5.61	6.54			13.90	14.96	16.49
		velocity	6.60	7.78	7.51	7.38	7.22		7.06	6.80	6.58	6.29	6.24	6.12	6.81		7.55	7.02	6.37
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	18	18	21.5	195.5				
Liu Xin (CHN) (1992)		time	7.19	11.78	16.40	21.12	25.92		30.93	36.07	41.39	46.96	52.75		59.86	7 / 2			
reaction time	0.281	interval		4.59	4.62	4.72	4.80		5.01	5.14	5.32	5.57	5.79	7.11			13.93	14.95	16.68
		velocity	6.26	7.63	7.58	7.42	7.29		6.99	6.81	6.58	6.28	6.04	5.63	6.68		7.54	7.02	6.29
H1 lead leg	L	strides	25	17	17	17	17		18	18	19	19	19	24	210				
Chen Liying (CHN) (1994)		time	6.90	11.48	16.13	20.83	25.66		30.69	35.94	41.41	47.16	53.37		60.26	6 / 3			
reaction time	0.194	interval		4.58	4.65	4.70	4.83		5.03	5.25	5.47	5.75	6.21	6.89	PB		13.93	15.11	17.43
		velocity	6.52	7.64	7.53	7.45	7.25		6.96	6.67	6.40	6.09	5.64	5.81	6.64		7.54	6.95	6.02
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	18	20	22.5	199.5				
Liu Hongjuan (CHN) (1996)		time	6.94	11.58	16.25	21.10	26.04		31.21	36.48	41.89	47.71	53.58		60.57	3 / 4			
reaction time	0.291	interval		4.64	4.67	4.85	4.94		5.17	5.27	5.41	5.82	5.87	6.99			14.16	15.38	17.10
		velocity	6.48	7.54	7.49	7.22	7.09		6.77	6.64	6.47	6.01	5.96	5.72	6.60		7.42	6.83	6.14
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18	22.5	196.5				
Zhuang Dongmei (CHN) (20		time	6.70	11.19	15.78	20.49	25.44		30.76	36.40	42.39	49.03	56.07		64.93	5 / 5			
reaction time	0.250	interval		4.49	4.59	4.71	4.95		5.32	5.64	5.99	6.64	7.04	8.86			13.79	15.91	19.67
		velocity	6.72	7.80	7.63	7.43	7.07		6.58	6.21	5.84	5.27	4.97	4.51	6.16		7.61	6.60	5.34
H1 lead leg	L	strides	24	17	17	17	17		18	18	19	20	20	25.7	212.7				

2019 Athletissima (Lausanne, SUI) (TV Analysis)

FINAL

date 05-Jul-19 — *Henson (2020) - Athlete First: 2019 year end hurdle report*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.12	10.24	14.50	18.88	23.32	25.3	27.90	32.74	37.72	42.80	48.00		53.73	5 / 1			
reaction time	0.223	interval		4.12	4.26	4.38	4.44		4.58	4.84	4.98	5.08	5.20	5.73			12.76	13.86	15.26
		velocity	7.35	8.50	8.22	7.99	7.88	7.91	7.64	7.23	7.03	6.89	6.73	6.98	7.44		8.23	7.58	6.88
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	17	19.7	182.7				

Hejnová, Zuzana (CZE) (1986		time	6.54	10.88	15.22		24.14	26.1	28.74	33.36	38.16	43.10	48.16		54.11	4 / 2			
reaction time	0.149	interval		4.34	4.34		8.92		4.60	4.62	4.80	4.94	5.06	5.95					14.80
		velocity	6.88	8.06	8.06		7.85	7.66	7.61	7.58	7.29	7.09	6.92	6.72	7.39				7.09
H1 lead leg	R	strides	22	15	15				15	15	16	16	16	19.7	149.7				
Spencer, Ashley (USA) (1993		time	6.44	10.62	14.90		23.94	25.9	28.60	33.22	38.00	42.96	48.24		54.11	3 / 3			
reaction time	0.146	interval		4.18	4.28		9.04		4.66	4.62	4.78	4.96	5.28	5.87					15.02
		velocity	6.99	8.37	8.18		7.74	7.72	7.51	7.58	7.32	7.06	6.63	6.81	7.39				6.99
H1 lead leg	L	strides	22	14	14				15	15	15	15	16	19	145				
Russell, Janieve (JAM) (1993		time	6.56	10.80	15.20		24.20	26.1	28.88	33.60	38.44	43.64	49.04		55.13	2 / 4			
reaction time	0.150	interval		4.24	4.40		9.00		4.68	4.72	4.84	5.20	5.40	6.09					15.44
		velocity	6.86	8.25	7.95		7.78	7.66	7.48	7.42	7.23	6.73	6.48	6.57	7.26				6.80
H1 lead leg	R	strides	22	15	15				15	15	15	17	17	19.5	150.5				
Sprunger, Leá (SUI) (1990)		time	6.44	10.64	14.96	19.44	24.00	26.0	28.80	33.68	38.68	43.96	49.32		55.24	7 / 5			
reaction time	0.125	interval		4.20	4.32	4.48	4.56		4.80	4.88	5.00	5.28	5.36	5.92			13.00	14.24	15.64
		velocity	6.99	8.33	8.10	7.81	7.68	7.69	7.29	7.17	7.00	6.63	6.53	6.76	7.24		8.08	7.37	6.71
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	16	16		154				
Iuel, Amalie (NOR) (1994)		time	6.44	10.64	14.92	19.40	24.04	26.1	28.84	33.72	38.72	44.08	49.36		55.48	8 / 6			
reaction time	0.156	interval		4.20	4.28	4.48	4.64		4.80	4.88	5.00	5.36	5.28	6.12			12.96	14.32	15.64
		velocity	6.99	8.33	8.18	7.81	7.54	7.66	7.29	7.17	7.00	6.53	6.63	6.54	7.21		8.10	7.33	6.71
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16		160				
Carter, Kori (USA) (1992)		time	6.36	10.56	14.84	19.20	23.72	25.8	28.60	33.52	38.68	43.96	49.28		55.55	6 / 7			
reaction time	0.129	interval		4.20	4.28	4.36	4.52		4.88	4.92	5.16	5.28	5.32	6.27			12.84	14.32	15.76
		velocity	7.08	8.33	8.18	8.03	7.74	7.75	7.17	7.11	6.78	6.63	6.58	6.38	7.20		8.18	7.33	6.66
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	17	17		165				
Tate, Cassandra (USA) (1990		time	6.36	10.40	14.76		23.72	25.7	28.60	33.56	38.76	44.24	50.00		56.90	1 / 8			
reaction time	0.201	interval		4.04	4.36		8.96		4.88	4.96	5.20	5.48	5.76	6.90					16.44
		velocity	7.08	8.66	8.03		7.81	7.78	7.17	7.06	6.73	6.39	6.08	5.80	7.03				6.39
H1 lead leg	R	strides	22	14	15				16	15	16	17	17		132				

2019 Japanese National Championships (Fukuoka, JPN)

FINAL date 30-Jun-19

Yamanaka (2019) - research on athlete performance and technique- 2019 data book

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ito, Akiko (JPN) (1995)		time	6.47	10.73	15.17	19.74	24.44		29.28	34.28	39.51	44.91	50.52		57.09	4 / 1			
reaction time	0.151	interval		4.26	4.44	4.57	4.70		4.84	5.00	5.23	5.40	5.61	6.57	PB		13.27	14.54	16.24
		velocity	6.96	8.22	7.88	7.66	7.45		7.23	7.00	6.69	6.48	6.24	6.09	7.01		7.91	7.22	6.47
H1 lead leg	L	strides	23	15	15	15	16		16	16	17	17	17	21.2	188.2				
Koyama, Kana (JPN) (1998)		time	6.77	11.16	15.65	20.32	25.18		30.03	35.14	40.44	45.85	51.40		57.61	6 / 2			
reaction time	0.172	interval		4.39	4.49	4.67	4.86		4.85	5.11	5.30	5.41	5.55	6.21			13.55	14.82	16.26
		velocity	6.65	7.97	7.80	7.49	7.20		7.22	6.85	6.60	6.47	6.31	6.44	6.94		7.75	7.09	6.46
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	17	20.7	187.7				
Sekimoto, Moeka (JPN) (2000		time	6.75	11.11	15.55	20.15	24.84		29.70	34.65	39.81	45.18	50.88		57.73	5 / 3			
reaction time	0.182	interval		4.36	4.44	4.60	4.69		4.86	4.95	5.16	5.37	5.70	6.85	PB		13.40	14.50	16.23
		velocity	6.67	8.03	7.88	7.61	7.46		7.20	7.07	6.78	6.52	6.14	5.84	6.93		7.84	7.24	6.47
H1 lead leg	R	strides	22	15	15	15	15		16	16	17	17	17	22	187				
Shibata, Haruka (JPN) (1991)		time	6.72	11.19	15.83	20.57	25.43		30.45	35.60	40.86	46.28	51.82		58.18	3 / 4			
reaction time	0.174	interval		4.47	4.64	4.74	4.86		5.02	5.15	5.26	5.42	5.54	6.36			13.85	15.03	16.22
		velocity	6.70	7.83	7.54	7.38	7.20		6.97	6.80	6.65	6.46	6.32	6.29	6.88		7.58	6.99	6.47
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	17	17	21.2	193.2				
Oshiden, Moe (JPN) (1993)		time	6.77	11.24	15.90	20.67	25.53		30.53	35.64	40.91	46.40	52.07		58.60	2 / 5			
reaction time	0.151	interval		4.47	4.66	4.77	4.86		5.00	5.11	5.27	5.49	5.67	6.53			13.90	14.97	16.43
		velocity	6.65	7.83	7.51	7.34	7.20		7.00	6.85	6.64	6.38	6.17	6.13	6.83		7.55	7.01	6.39
H1 lead leg	R	strides	23	16	16	16	16		17	17	17	17	17	21.7	193.7				
Takeishi, Konomi (JPN) (199		time	6.66	11.14	15.88	20.82	25.81		30.90	36.30	41.86	47.28	52.69		58.76	8 / 6			
reaction time	0.148	interval		4.48	4.74	4.94	4.99		5.09	5.40	5.56	5.42	5.41	6.07			14.16	15.48	16.39
		velocity	6.76	7.81	7.38	7.09	7.01		6.88	6.48	6.29	6.46	6.47	6.59	6.81		7.42	6.78	6.41
H1 lead leg	R	strides	23	15	15	16	16		16	17	18	17	17		170				
Iburahimu, Aisya (JPN) (1998		time	6.76	11.19	15.80	20.49	25.31		30.35	35.57	41.09	46.98	52.90		59.43	9 / 7			
reaction time	0.231	interval		4.43	4.61	4.69	4.82		5.04	5.22	5.52	5.89	5.92	6.53			13.73	15.08	17.33
		velocity	6.66	7.90	7.59	7.46	7.26		6.94	6.70	6.34	5.94	5.91	6.13	6.73		7.65	6.96	6.06
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	17	16		161				

2019 Bislett Games (Oslo, NOR) (TV Analysis)

FINAL date 13-Jun-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.36	10.64	14.96		23.76	25.6	28.30	33.00	38.02	43.14	48.38		54.16	4 / 1			
reaction time	0.213	interval		4.28	4.32		8.80		4.54	4.70	5.02	5.12	5.24	5.78					15.38
		velocity	7.08	8.18	8.10		7.95	7.81	7.71	7.45	6.97	6.84	6.68	6.92	7.39				6.83

H1 lead leg	R	strides	23	15	15				15	15	16	16	16	19	150				
Muhammad, Dalilah (USA) (		time	6.10	10.04	14.20	18.58	23.12	25.0	27.72	32.40	37.28	42.44	47.88		54.35	5 / 2			
reaction time	0.205	interval		3.94	4.16	4.38	4.54		4.60	4.68	4.88	5.16	5.44	6.47			12.48	13.82	15.48
		velocity	7.38	8.88	8.41	7.99	7.71	8.00	7.61	7.48	7.17	6.78	6.43	6.18	7.36		8.41	7.60	6.78
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	17	20.5	181.5				
Little, Shamier (USA) (1995)		time	6.32	10.42	14.62	18.88	23.38	25.3	28.06	32.90	37.86	43.10	48.50		54.92	6 / 3			
reaction time	0.273	interval		4.10	4.20	4.26	4.50		4.68	4.84	4.96	5.24	5.40	6.42			12.56	14.02	15.60
		velocity	7.12	8.54	8.33	8.22	7.78	7.91	7.48	7.23	7.06	6.68	6.48	6.23	7.28		8.36	7.49	6.73
H1 lead leg	R	strides	24	15	15	15	15		16	16	16	17	17	20	186				
Carter, Kori (USA) (1992)		time	6.24	10.28	14.40		23.08	25.0	27.76	32.80	38.00	43.44	49.12		55.67	3 / 4			
reaction time	0.137	interval		4.04	4.12		8.68		4.68	5.04	5.20	5.44	5.68	6.55					16.32
		velocity	7.21	8.66	8.50		8.06	8.00	7.48	6.94	6.73	6.43	6.16	6.11	7.19				6.43
H1 lead leg	L	strides	23	15	15				16	17	17	18	18	20.7	159.7				
Iuel, Amalie (NOR) (1994)		time	6.36	10.52	14.84	19.24	23.88	25.9	28.68	33.72	38.72	44.04	49.48		55.80	8 / 5			
reaction time	0.169	interval		4.16	4.32	4.40	4.64		4.80	5.04	5.00	5.32	5.44	6.32			12.88	14.48	15.76
		velocity	7.08	8.41	8.10	7.95	7.54	7.72	7.29	6.94	7.00	6.58	6.43	6.33	7.17		8.15	7.25	6.66
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.2	181.2				
Ryzhykova, Anna (UKR) (19		time	6.52	10.72	14.96		24.20	26.2	29.04	34.04	39.04	44.28	49.80		56.26	2 / 6			
reaction time	0.178	interval		4.20	4.24		9.24		4.84	5.00	5.00	5.24	5.52	6.46					15.76
		velocity	6.90	8.33	8.25		7.58	7.63	7.23	7.00	7.00	6.68	6.34	6.19	7.11				6.66
H1 lead leg	R	strides	22	14	14				15	15	15	15	16	21	147				
Sprunger, Leá (SUI) (1990)		time	6.40	10.64	15.04	19.44	24.08	26.1	28.92	33.96	39.08	44.48	50.16		56.46	7 / 7			
reaction time	0.179	interval		4.24	4.40	4.40	4.64		4.84	5.04	5.12	5.40	5.68	6.30			13.04	14.52	16.20
		velocity	7.03	8.25	7.95	7.95	7.54	7.66	7.23	6.94	6.84	6.48	6.16	6.35	7.08		8.05	7.23	6.48
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	16	16	19.2	173.2				
Beesley, Meghan (GBR) (198		time	6.40	10.64	15.00		24.16	26.1	28.80	33.96	39.12	44.64	50.36		57.13	1 / 8			
reaction time	0.166	interval		4.24	4.36		9.16		4.64	5.16	5.16	5.52	5.72	6.77					16.40
		velocity	7.03	8.25	8.03		7.64	7.66	7.54	6.78	6.78	6.34	6.12	5.91	7.00				6.40
H1 lead leg	R	strides	24	16	16				16	17	17	18	19	23.5	166.5				

2019 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

FINAL date 06-Jun-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.24	10.26	14.58	19.10	23.76		28.40	33.00	37.68	42.58	47.70		53.67	5 / 1			
reaction time	0.147	interval		4.02	4.32	4.52	4.66		4.64	4.60	4.68	4.90	5.12	5.97			12.86	13.90	14.70
		velocity	7.21	8.71	8.10	7.74	7.51		7.54	7.61	7.48	7.14	6.84	6.70	7.45		8.16	7.55	7.14
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	15	16	19.5	178.5				
Little, Shamier (USA) (1995)		time	6.28	10.44	14.72	19.12	23.64		28.32	33.08	38.04	43.12	48.30		54.40	4 / 2			
reaction time	0.215	interval		4.16	4.28	4.40	4.52		4.68	4.76	4.96	5.08	5.18	6.10			12.84	13.96	15.22
		velocity	7.17	8.41	8.18	7.95	7.74		7.48	7.35	7.06	6.89	6.76	6.56	7.35		8.18	7.52	6.90
H1 lead leg	R	strides	24	15	15	15	15		16	16	16	16	16	20	184				
Hejnová, Zuzana (CZE) (198		time	6.66	10.96	15.34	19.80	24.40		29.04	33.74	38.58	43.62	48.78		54.82	7 / 3			
reaction time	0.162	interval		4.30	4.38	4.46	4.60		4.64	4.70	4.84	5.04	5.16	6.04			13.14	13.94	15.04
		velocity	6.76	8.14	7.99	7.85	7.61		7.54	7.45	7.23	6.94	6.78	6.62	7.30		7.99	7.53	6.98
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Carter, Kori (USA) (1992)		time	6.32	10.36	14.60	18.92	23.44		28.12	33.00	38.08	43.20	48.56		55.09	2 / 4			
reaction time	0.153	interval		4.04	4.24	4.32	4.52		4.68	4.88	5.08	5.12	5.36	6.53			12.60	14.08	15.56
		velocity	7.12	8.66	8.25	8.10	7.74		7.48	7.17	6.89	6.84	6.53	6.13	7.26		8.33	7.46	6.75
H1 lead leg	L	strides	23	15	16	16	16		16	16	17	17	18	21	191				
Russell, Janieve (JAM) (1993		time	6.64	10.88	15.20	19.56	24.08		28.84	33.68	38.68	43.88	49.20		55.42	3 / 5			
reaction time	0.173	interval		4.24	4.32	4.36	4.52		4.76	4.84	5.00	5.20	5.32	6.22			12.92	14.12	15.52
		velocity	6.78	8.25	8.10	8.03	7.74		7.35	7.23	7.00	6.73	6.58	6.43	7.22		8.13	7.44	6.77
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	17	17	20	185				
Ryzhykova, Anna (UKR) (19		time	6.44	10.64	14.92	19.40	24.08		28.96	33.84	38.80	44.00	49.40		55.64	8 / 6			
reaction time	0.157	interval		4.20	4.28	4.48	4.68		4.88	4.88	4.96	5.20	5.40	6.24			12.96	14.44	15.56
		velocity	6.99	8.33	8.18	7.81	7.48		7.17	7.17	7.06	6.73	6.48	6.41	7.19		8.10	7.27	6.75
H1 lead leg	R	strides	22	14	14	14	15		15	15	15	15	16	19.5	174.5				
Watson, Sage (CAN) (1994)		time	6.52	10.80	15.20	19.72	24.32		29.00	33.92	38.96	44.20	49.60		55.71	1 / 7			
reaction time	0.171	interval		4.28	4.40	4.52	4.60		4.68	4.92	5.04	5.24	5.40	6.11			13.20	14.20	15.68
		velocity	6.90	8.18	7.95	7.74	7.61		7.48	7.11	6.94	6.68	6.48	6.55	7.18		7.95	7.39	6.70
H1 lead leg	R	strides	22	15	15	15	15		15	16	16	16	17	19.7	181.7				
Folorunso, Ayomide (IRA) (		time	6.56	10.84	15.20	19.68	24.28		29.04	33.88	38.88	44.04	49.60		55.99	9 / 8			
reaction time	0.194	interval		4.28	4.36	4.48	4.60		4.76	4.84	5.00	5.16	5.56	6.39			13.12	14.20	15.72
		velocity	6.86	8.18	8.03	7.81	7.61		7.35	7.23	7.00	6.78	6.29	6.26	7.14		8.00	7.39	6.68
H1 lead leg	R	strides	23	16	16	16	16		16	16	17	17	17	21	191				

Sprunger, Leá (SUI) (1990)		time	6.48	10.80	15.20	19.76	24.44	29.32	34.32	39.34	44.72	50.24		56.36	6 / 9			
reaction time	0.143	interval		4.32	4.40	4.56	4.68	4.88	5.00	5.02	5.38	5.52	6.12			13.28	14.56	15.92
		velocity	6.94	8.10	7.95	7.68	7.48	7.17	7.00	6.97	6.51	6.34	6.54	7.10		7.91	7.21	6.60
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	16	16	19	173				

2019 Chinese National Grand Prix 4 (Luoyang, CHN)

FINAL date 29-May-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zhou Yu (CHN) (1999)		time	6.95	11.52	16.14	20.77	25.57		30.54	35.83	41.17	46.74	52.33		58.48	6 / 1			
reaction time		interval		4.57	4.62	4.63	4.80		4.97	5.29	5.34	5.57	5.59	6.15	PB		13.82	15.06	16.50
		velocity	6.47	7.66	7.58	7.56	7.29		7.04	6.62	6.55	6.28	6.26	6.50	6.84		7.60	6.97	6.36
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	18	18	21.2	195.2				
Ou Ying (CHN) (2001)		time	7.07	11.73	16.48	21.27	26.32		31.56	36.88	42.31	47.88	53.55		59.71	4 / 2			
reaction time		interval		4.66	4.75	4.79	5.05		5.24	5.32	5.43	5.57	5.67	6.16			14.20	15.61	16.67
		velocity	6.36	7.51	7.37	7.31	6.93		6.68	6.58	6.45	6.28	6.17	6.49	6.70		7.39	6.73	6.30
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	18	21	200				
Hu Lihong (CHN) (1999)		time	7.02	11.64	16.35	21.17	26.17		31.33	36.70	42.12	47.86	53.87		60.75	5 / 3			
reaction time		interval		4.62	4.71	4.82	5.00		5.16	5.37	5.42	5.74	6.01	6.88			14.15	15.53	17.17
		velocity	6.41	7.58	7.43	7.26	7.00		6.78	6.52	6.46	6.10	5.82	5.81	6.58		7.42	6.76	6.12
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	20.7	192.7				
Chen Liying (CHN) (1994)		time	7.05	11.61	16.28	20.95	25.79		30.88	36.28	42.01	47.86	53.95		60.83	7 / 4			
reaction time		interval		4.56	4.67	4.67	4.84		5.09	5.40	5.73	5.85	6.09	6.88			13.90	15.33	17.67
		velocity	6.38	7.68	7.49	7.49	7.23		6.88	6.48	6.11	5.98	5.75	5.81	6.58		7.55	6.85	5.94
H1 lead leg	R	strides	24	16	16	16	16		17	17	19	18	19	22	200				
Wu Fangfang (CHN) (1997)		time	7.29	11.99	16.71	21.58	26.59		31.86	37.38	43.06	48.90	55.18		61.76	8 / 5			
reaction time		interval		4.70	4.72	4.87	5.01		5.27	5.52	5.68	5.84	6.28	6.58			14.29	15.80	17.80
		velocity	6.17	7.45	7.42	7.19	6.99		6.64	6.34	6.16	5.99	5.57	6.08	6.48		7.35	6.65	5.90
H1 lead leg	L	strides	24	16	16	17	16		17	17	17	17	19	21.2	197.2				
Zhuang Dongmei (CHN) (20		time	6.82	11.42	16.06	20.82	25.88		31.09	36.57	42.42	48.78	55.30		61.94	2 / 6			
reaction time		interval		4.60	4.64	4.76	5.06		5.21	5.48	5.85	6.36	6.52	6.64			14.00	15.75	18.73
		velocity	6.60	7.61	7.54	7.35	6.92		6.72	6.39	5.98	5.50	5.37	6.02	6.46		7.50	6.67	5.61
H1 lead leg	L	strides	24	17	17	17	17		17	17	19	20	20	22.2	207.2				
Tao Xue (CHN) (1999)		time	6.92	11.29	15.78	20.40									dnf	1 / --			
reaction time		interval		4.37	4.49	4.62											13.48		
		velocity	6.50	8.01	7.80	7.58											7.79		
H1 lead leg	L	strides	13	15	15	16									59				

2019 Shimane High School Championships (Honshu, JPN)

FINAL date 25-May-19

Shimizu (2019) - shimane high school championships 2019 - biomechanics data analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
拝上 芽生		time	7.72	12.79	18.24	23.98	29.78		35.70	41.70	47.86	53.88	59.95		66.71	4 / 1			
reaction time		interval		5.07	5.45	5.74	5.80		5.92	6.00	6.16	6.02	6.07	6.76			16.26	17.72	18.25
		velocity	5.83	6.90	6.42	6.10	6.03		5.91	5.83	5.68	5.81	5.77	5.92	6.00		6.46	5.93	5.75
H1 lead leg		strides	25	17	17	19	19		19	19	19	19	19	24	216				
矢倉 侑芽		time	7.72	12.89	18.71	24.78	30.68		36.58	42.49	48.51	54.53	60.68		67.74	3 / 2			
reaction time		interval		5.17	5.82	6.07	5.90		5.90	5.91	6.02	6.02	6.15	7.06			17.06	17.71	18.19
		velocity	5.83	6.77	6.01	5.77	5.93		5.93	5.92	5.81	5.81	5.69	5.67	5.90		6.15	5.93	5.77
H1 lead leg		strides	25	17	19	19	19		19	19	19	19	19	23	217				
藤井 佑衣		time	7.69	13.04	18.73	24.53	30.32		36.30	42.49	48.96	55.56	62.25		69.45	6 / 3			
reaction time		interval		5.35	5.69	5.80	5.79		5.98	6.19	6.47	6.60	6.69	7.20			16.84	17.96	19.76
		velocity	5.85	6.54	6.15	6.03	6.04		5.85	5.65	5.41	5.30	5.23	5.56	5.76		6.24	5.85	5.31
H1 lead leg		strides	26	19	19	19	19		19	19	20	21	21	25	227				
神田 早紀		time	7.89	13.77	19.84	25.81	31.80		37.85	43.92	50.19	56.48	62.96		70.37	8 / 4			
reaction time		interval		5.88	6.07	5.97	5.99		6.05	6.07	6.27	6.29	6.48	7.41			17.92	18.11	19.04
		velocity	5.70	5.95	5.77	5.86	5.84		5.79	5.77	5.58	5.56	5.40	5.40	5.68		5.86	5.80	5.51
H1 lead leg		strides	29	21	21	21	21		21	21	22	22	22	27	248				
松井 菜摘		time	7.82	13.27	19.19	25.15	31.12		37.27	43.46	49.92	56.41	63.05		70.51	2 / 5			
reaction time		interval		5.45	5.92	5.96	5.97		6.15	6.19	6.46	6.49	6.64	7.46			17.33	18.31	19.59
		velocity	5.75	6.42	5.91	5.87	5.86		5.69	5.65	5.42	5.39	5.27	5.36	5.67		6.06	5.73	5.36
H1 lead leg		strides	25	18	19	19	19		19	19	20	20	21	25	224				
大國 那月		time	7.77	13.29	19.23	25.23	31.22		37.52	44.02	50.61	57.08	63.60		70.60	7 / 6			
reaction time		interval		5.52	5.94	6.00	5.99		6.30	6.50	6.59	6.47	6.52	7.00			17.46	18.79	19.58
		velocity	5.79	6.34	5.89	5.83	5.84		5.56	5.38	5.31	5.41	5.37	5.71	5.67		6.01	5.59	5.36
H1 lead leg		strides	25	17	19	19	19		21	21	21	21	21	25	229				
藤岡 志帆		time	7.77	13.62	19.56	25.46	31.42		37.75	44.32	50.71	57.25	63.77		70.60	9 / 7			
reaction time		interval		5.85	5.94	5.90	5.96		6.33	6.57	6.39	6.54	6.52	6.83			17.69	18.86	19.45

		velocity	5.79	5.98	5.89	5.93	5.87	5.53	5.33	5.48	5.35	5.37	5.86	5.67		5.94	5.57	5.40
	H1 lead leg	strides	26	19	19	19	19	21	21	21	21	21	23	230				
元上 一葉		time	7.92	13.36	19.34	25.40	31.48	37.75	44.22	50.83	57.41	64.12		72.10	5 / 8			
	reaction time	interval		5.44	5.98	6.06	6.08	6.27	6.47	6.61	6.58	6.71	7.98			17.48	18.82	19.90
		velocity	5.68	6.43	5.85	5.78	5.76	5.58	5.41	5.30	5.32	5.22	5.01	5.55		6.01	5.58	5.28
	H1 lead leg	strides	27	20	20	20	21	21	21	21	21	21	27	240				

2019 Seiko Golden Grand Prix (Osaka, JPN)

FINAL

date 19-May-19

Hirokawa (2019) - research on athlete performance and technique- 2019 data book

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.21	10.23	14.51	18.94	23.47		28.16	32.75	37.49	42.46	47.80		53.88	5 / 1			
reaction time	0.181	interval		4.02	4.28	4.43	4.53		4.69	4.59	4.74	4.97	5.34	6.08			12.73	13.81	15.05
		velocity	7.25	8.71	8.18	7.90	7.73		7.46	7.63	7.38	7.04	6.55	6.58	7.42		8.25	7.60	6.98
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Belle, Tia Adana (BAR) (199		time	6.51	10.64	14.85	19.24	23.77		28.56	33.60	38.66	43.88	49.23		55.42	6 / 2			
reaction time	0.177	interval		4.13	4.21	4.39	4.53		4.79	5.04	5.06	5.22	5.35	6.19			12.73	14.36	15.63
		velocity	6.91	8.47	8.31	7.97	7.73		7.31	6.94	6.92	6.70	6.54	6.46	7.22		8.25	7.31	6.72
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	20	182				
Tate, Cassandra (USA) (1990		time	6.34	10.38	14.58	19.17	23.89		28.65	33.52	38.44	43.66	49.18		55.45	8 / 3			
reaction time	0.233	interval		4.04	4.20	4.59	4.72		4.76	4.87	4.92	5.22	5.52	6.27			12.83	14.35	15.66
		velocity	7.10	8.66	8.33	7.63	7.42		7.35	7.19	7.11	6.70	6.34	6.38	7.21		8.18	7.32	6.70
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19.7	178.7				
Linkiewicz, Joanna (POL) (19		time	6.56	10.84	15.30	19.81	24.57		29.51	34.52	39.57	44.76	50.07		56.35	7 / 4			
reaction time	0.112	interval		4.28	4.46	4.51	4.76		4.94	5.01	5.05	5.19	5.31	6.28			13.25	14.71	15.55
		velocity	6.86	8.18	7.85	7.76	7.35		7.09	6.99	6.93	6.74	6.59	6.37	7.10		7.92	7.14	6.75
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	21	194				
Utsunomiya, Eri (JPN) (1993)		time	6.52	10.82	15.33	19.87	24.56		29.60	34.70	39.96	45.33	50.83		57.31	9 / 5			
reaction time	0.167	interval		4.30	4.51	4.54	4.69		5.04	5.10	5.26	5.37	5.50	6.48			13.35	14.83	16.13
		velocity	6.90	8.14	7.76	7.71	7.46		6.94	6.86	6.65	6.52	6.36	6.17	6.98		7.87	7.08	6.51
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	21.2	187.2				
Koyama, Kana (JPN) (1998)		time	6.67	10.99	15.53	20.29	25.21		30.18	35.25	40.42	45.85	51.32		57.45	3 / 6			
reaction time	0.173	interval		4.32	4.54	4.76	4.92		4.97	5.07	5.17	5.43	5.47	6.13	PB		13.62	14.96	16.07
		velocity	6.75	8.10	7.71	7.35	7.11		7.04	6.90	6.77	6.45	6.40	6.53	6.96		7.71	7.02	6.53
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	17	22	189				
Ito, Akiko (JPN) (1995)		time	6.49	10.79	15.25	19.95	24.82		29.86	34.87	40.14	45.63	51.16		57.61	2 / 7			
reaction time	0.141	interval		4.30	4.46	4.70	4.87		5.04	5.01	5.27	5.49	5.53	6.45	PB		13.46	14.92	16.29
		velocity	6.93	8.14	7.85	7.45	7.19		6.94	6.99	6.64	6.38	6.33	6.20	6.94		7.80	7.04	6.45
H1 lead leg	L	strides	23	15	15	16	16		16	16	17	17	17	21	189				
Seymour, Katrina (BAH) (19		time	6.72	11.23	15.80	20.59	25.51		30.56	35.52	40.56	45.85	51.42		58.04	4 / 8			
reaction time	0.163	interval		4.51	4.57	4.79	4.92		5.05	4.96	5.04	5.29	5.57	6.62			13.87	14.93	15.90
		velocity	6.70	7.76	7.66	7.31	7.11		6.93	7.06	6.94	6.62	6.28	6.04	6.89		7.57	7.03	6.60
H1 lead leg	R	strides	22	15	15	15	15		16	16	16	16	17	20.2	183.2				
Aoki, Honoka (JPN) (2001)		time	6.74	11.09	15.65	20.35	25.28		30.43	35.62	40.97	46.55	52.17		58.45	1 / 9			
reaction time	0.167	interval		4.35	4.56	4.70	4.93		5.15	5.19	5.35	5.58	5.62	6.28	PB		13.61	15.27	16.55
		velocity	6.68	8.05	7.68	7.45	7.10		6.80	6.74	6.54	6.27	6.23	6.37	6.84		7.71	6.88	6.34
H1 lead leg	R	strides	23	16	17	17	17		17	17	18	18	19	21	200				

2019 Kinami Memorial (Osaka, JPN)

A FINAL

date 06-May-19

Matsubayashi (2019) - research on athlete performance and technique- 2019 data book

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Utsunomiya, Eri (JPN) (1993)		time	6.52	10.83	15.30	19.90	24.69		29.75	34.82	40.05	45.40	50.79		57.05	7 / 1			
reaction time		interval		4.31	4.47	4.60	4.79		5.06	5.07	5.23	5.35	5.39	6.26			13.38	14.92	15.97
		velocity	6.90	8.12	7.83	7.61	7.31		6.92	6.90	6.69	6.54	6.49	6.39	7.01		7.85	7.04	6.57
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	21	187				
Koyama, Kana (JPN) (1998)		time	6.76	11.11	15.57	20.24	25.14		30.11	35.09	40.22	45.62	51.20		57.77	3 / 2			
reaction time		interval		4.35	4.46	4.67	4.90		4.97	4.98	5.13	5.40	5.58	6.57	PB		13.48	14.85	16.11
		velocity	6.66	8.05	7.85	7.49	7.14		7.04	7.03	6.82	6.48	6.27	6.09	6.92		7.79	7.07	6.52
H1 lead leg		strides		15	15	15	16		16	17	17	17	17	21.5	166.5				
Sekimoto, Moeka (JPN) (200		time	6.72	11.21	15.72	20.32	25.11		30.04	35.04	40.26	45.74	51.53		58.40	6 / 3			
reaction time		interval		4.49	4.51	4.60	4.79		4.93	5.00	5.22	5.48	5.79	6.87	PB		13.60	14.72	16.49
		velocity	6.70	7.80	7.76	7.61	7.31		7.10	7.00	6.70	6.39	6.04	5.82	6.85		7.72	7.13	6.37
H1 lead leg	R	strides	22	15	15	15	15		16	16	17	17	17	22	187				
Oshiden, Moe (JPN) (1993)		time	6.87	11.44	16.20	20.95	25.96		31.08	36.32	41.57	46.96	52.45		58.88	2 / 4			
reaction time		interval		4.57	4.76	4.75	5.01		5.12	5.24	5.25	5.39	5.49	6.43			14.08	15.37	16.13
		velocity	6.55	7.66	7.35	7.37	6.99		6.84	6.68	6.67	6.49	6.38	6.22	6.79		7.46	6.83	6.51
H1 lead leg		strides		16	16	16	16		17	17	17	17	17	21	170				

Higa, Kazuki (JPN) (1998)		time	6.97	11.53	16.22	20.99	25.88		30.91	36.04	41.32	46.78	52.43		59.03	5 / 5		
reaction time		interval		4.56	4.69	4.77	4.89		5.03	5.13	5.28	5.46	5.65	6.60			14.02	15.05	16.39
		velocity	6.46	7.68	7.46	7.34	7.16		6.96	6.82	6.63	6.41	6.19	6.06	6.78		7.49	6.98	6.41
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	21.7	194.7				

B FINAL

date 06-May-19

Matsubayashi (2019) - research on athlete performance and technique- 2019 data book

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Iburahimu, Aisya (JPN) (199		time	6.71	11.13	15.72	20.35	25.19		30.18	35.35	40.57	46.08	51.69		58.09	9 / 1			
reaction time		interval		4.42	4.59	4.63	4.84		4.99	5.17	5.22	5.51	5.61	6.40	**PB**		13.64	15.00	16.34
		velocity	6.71	7.92	7.63	7.56	7.23		7.01	6.77	6.70	6.35	6.24	6.25	6.89		7.70	7.00	6.43
H1 lead leg	R	strides		15	15	15	15		15	15	15	16	16	19.7	156.7				
Shibata, Haruka (JPN) (1991)		time	6.67	11.09	15.56	20.27	25.21		30.18	35.32	40.54	46.10	51.85		58.24	8 / 2			
reaction time		interval		4.42	4.47	4.71	4.94		4.97	5.14	5.22	5.56	5.75	6.39			13.60	15.05	16.53
		velocity	6.75	7.92	7.83	7.43	7.09		7.04	6.81	6.70	6.29	6.09	6.26	6.87		7.72	6.98	6.35
H1 lead leg	L	strides	24	16	16	17	17		17	17	17	18	18	21.2	198.2				
Carothers, Keina (JPN) (199		time	6.81	11.34	16.00	20.77	25.59		30.63	35.77	41.14	46.61	52.32		58.90	3 / 3			
reaction time		interval		4.53	4.66	4.77	4.82		5.04	5.14	5.37	5.47	5.71	6.58	**PB**		13.96	15.00	16.55
		velocity	6.61	7.73	7.51	7.34	7.26		6.94	6.81	6.52	6.40	6.13	6.08	6.79		7.52	7.00	6.34
H1 lead leg	R	strides		16	16	16	16		17	17	17	17	17	21.7	170.7				

2019 Doha Diamond League (Doha, QAT) (TV Analysis)

FINAL

date 03-May-19

Henson (2020) - Athlete First: 2019 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.24	10.31	14.68	19.11	23.59	25.5	28.02	32.56	37.23	42.28	47.48		53.61	5 / 1			
reaction time	0.179	interval		4.07	4.37	4.43	4.48		4.43	4.54	4.67	5.05	5.20	6.13			12.87	13.45	14.92
		velocity	7.21	8.60	8.01	7.90	7.81	7.84	7.90	7.71	7.49	6.93	6.73	6.53	7.46		8.16	7.81	7.04
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Spencer, Ashley (USA) (1993		time	6.47	10.70	15.06	19.55	24.20	26.1	28.81	33.56	38.40	43.42	48.64		54.72	2 / 2			
reaction time	0.156	interval		4.23	4.36	4.49	4.65		4.61	4.75	4.84	5.02	5.22	6.08			13.08	14.01	15.08
		velocity	6.96	8.27	8.03	7.80	7.53	7.66	7.59	7.37	7.23	6.97	6.70	6.58	7.31		8.03	7.49	6.96
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	19	176				
Ryzhykova, Anna (UKR) (19		time	6.58	10.70	14.91	19.35	23.99	25.9	28.73	33.60	38.60	43.64	48.84		54.82	4 / 3			
reaction time	0.149	interval		4.12	4.21	4.44	4.64		4.74	4.87	5.00	5.04	5.20	5.98			12.77	14.25	15.24
		velocity	6.84	8.50	8.31	7.88	7.54	7.72	7.38	7.19	7.00	6.94	6.73	6.69	7.30		8.22	7.37	6.89
H1 lead leg	R	strides	22	14	14	14	15		15	15	15	15	16	19.2	174.2				
Russell, Janieve (JAM) (1993		time	6.60	10.78	15.08	19.52	23.99	26.0	28.63	33.46	38.47	43.64	48.92		55.28	6 / 4			
reaction time	0.131	interval		4.18	4.30	4.44	4.47		4.64	4.83	5.01	5.17	5.28	6.36			12.92	13.94	15.46
		velocity	6.82	8.37	8.14	7.88	7.83	7.69	7.54	7.25	6.99	6.77	6.63	6.29	7.24		8.13	7.53	6.79
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	17	17	20	185				
Boden, Lauren (AUS) (1988)		time	6.54	10.74	15.05	19.48	23.96	25.9	28.56	33.30	38.34	43.54	49.01		55.60	9 / 5			
reaction time	0.147	interval		4.20	4.31	4.43	4.48		4.60	4.74	5.04	5.20	5.47	6.59			12.94	13.82	15.71
		velocity	6.88	8.33	8.12	7.90	7.81	7.72	7.61	7.38	6.94	6.73	6.40	6.07	7.19		8.11	7.60	6.68
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	21	182				
Beesley, Meghan (GBR) (198		time	6.34	10.51	14.88	19.18	23.79	25.7	28.53	33.50	38.84	44.28	49.75		56.01	3 / 6			
reaction time	0.157	interval		4.17	4.37	4.30	4.61		4.74	4.97	5.34	5.44	5.47	6.26			12.84	14.32	16.25
		velocity	7.10	8.39	8.01	8.14	7.59	7.78	7.38	7.04	6.55	6.43	6.40	6.39	7.14		8.18	7.33	6.46
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	18	22.7	198.7				
Nel, Wenda (RSA) (1988)		time	6.54	10.88	15.35	19.95	24.62	26.5	29.23	34.10	39.10	44.21	49.75		56.16	7 / 7			
reaction time	0.206	interval		4.34	4.47	4.60	4.67		4.61	4.87	5.00	5.11	5.54	6.41			13.41	14.15	15.65
		velocity	6.88	8.06	7.83	7.61	7.49	7.55	7.59	7.19	7.00	6.85	6.32	6.24	7.12		7.83	7.42	6.71
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	18	22	194				
van der Walt, Zenéy (RSA) (2		time	6.54	10.88			24.52	26.5	29.36		39.54	44.91	50.35		56.45	1 / 8			
reaction time	0.167	interval		4.34			13.64		4.84		10.18	5.37	5.44	6.10					
		velocity	6.88	8.06			7.70	7.55	7.23		6.88	6.52	6.43	6.56	7.09				
H1 lead leg	L	strides	23	15					16			17	17	20.5	108.5				
Pedroso, Yadisleidis (ITA) (1		time	6.71	11.08	15.51	20.12	24.72	26.8	29.46	34.37	39.44	44.64	50.38		57.20	8 / 9			
reaction time	0.257	interval		4.37	4.43	4.61	4.60		4.74	4.91	5.07	5.20	5.74	6.82			13.41	14.25	16.01
		velocity	6.71	8.01	7.90	7.59	7.61	7.46	7.38	7.13	6.90	6.73	6.10	5.87	6.99		7.83	7.37	6.56
H1 lead leg	R	strides	24	16	16	16	16		16	16	17	17	18	22	194				

2019 Shizuoka International Athletics Meeting (Fukuroi, JPN)

A FINAL

date 03-May-19

Kobayashi (2019) - research on athlete performance and technique- 2019 data book

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Koyama, Kana (JPN) (1998)		time	6.77	11.13	15.55	20.14	25.03		29.86	34.95	40.24	45.78	51.45		57.80	/ 1			
reaction time		interval		4.36	4.42	4.59	4.89		4.83	5.09	5.29	5.54	5.67	6.35	**=PB**		13.37	14.81	16.50
		velocity	6.65	8.03	7.92	7.63	7.16		7.25	6.88	6.62	6.32	6.17	6.30	6.92		7.85	7.09	6.36
H1 lead leg		strides		15	15	15	16		16	17	17	17	17		145				
Ito, Akiko (JPN) (1995)		time	6.62	11.01	15.53	20.22	25.13		30.15	35.10	40.39	45.90	51.55		58.08	/ 2			

reaction time	interval		4.39	4.52	4.69	4.91	5.02	4.95	5.29	5.51	5.65	6.53			13.60	14.88	16.45
	velocity	6.80	7.97	7.74	7.46	7.13	6.97	7.07	6.62	6.35	6.19	6.13	6.89		7.72	7.06	6.38
H1 lead leg	strides		15	15	16	16	16	16	17	17	17		145				
Utsunomiya, Eri (JPN) (1993)	time	6.52	10.81	15.28	19.85	24.69	29.71	34.87	40.26	45.81	51.72		58.68	/ 3			
reaction time	interval		4.29	4.47	4.57	4.84	5.02	5.16	5.39	5.55	5.91	6.96			13.33	15.02	16.85
	velocity	6.90	8.16	7.83	7.66	7.23	6.97	6.78	6.49	6.31	5.92	5.75	6.82		7.88	6.99	6.23
H1 lead leg	strides		15	15	15	15	16	16	17	17	18		144				
Yoshida, Kasumi (JPN) (1999)	time	6.77	11.28	15.82	20.54	25.44	30.50	35.74	41.21	47.03	53.07		59.90	/ 4			
reaction time	interval		4.51	4.54	4.72	4.90	5.06	5.24	5.47	5.82	6.04	6.83			13.77	15.20	17.33
	velocity	6.65	7.76	7.71	7.42	7.14	6.92	6.68	6.40	6.01	5.79	5.86	6.68		7.63	6.91	6.06
H1 lead leg	strides		16	16	16	16	17	17	17	19	19		153				

B FINAL

date 03-May-19

Kobayashi (2019) - research on athlete performance and technique- 2019 data book

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Oshiden, Moe (JPN) (1993)	time	6.87	11.41	16.15	20.97	25.94		31.11	36.37	41.73	47.31	53.17		59.54	/ 1			
reaction time	interval		4.54	4.74	4.82	4.97		5.17	5.26	5.36	5.58	5.86	6.37			14.10	15.40	16.80
	velocity	6.55	7.71	7.38	7.26	7.04		6.77	6.65	6.53	6.27	5.97	6.28	6.72		7.45	6.82	6.25
H1 lead leg	strides		16	16	16	16		17	17	17	17	17		149				
Sekimoto, Moeka (JPN) (2000)	time	6.89	11.31	15.82	20.42	25.13		30.00	35.22	40.64	46.41	52.64		59.55	/ 2			
reaction time	interval		4.42	4.51	4.60	4.71		4.87	5.22	5.42	5.77	6.23	6.91			13.53	14.80	17.42
	velocity	6.53	7.92	7.76	7.61	7.43		7.19	6.70	6.46	6.07	5.62	5.79	6.72		7.76	7.09	6.03
H1 lead leg	strides		15	15	15	15		15	16	16	17	18		142				
Kawabata, Szuka (JPN) (1993)	time	6.76	11.21	15.87	20.64	25.58		30.66	36.05	41.68	47.36	53.32		59.87	/ 3			
reaction time	interval		4.45	4.66	4.77	4.94		5.08	5.39	5.63	5.68	5.96	6.55			13.88	15.41	17.27
	velocity	6.66	7.87	7.51	7.34	7.09		6.89	6.49	6.22	6.16	5.87	6.11	6.68		7.56	6.81	6.08
H1 lead leg	strides		15	16	16	16		16	17	18	18	19		151				

C FINAL

date 03-May-19

Kobayashi (2019) - research on athlete performance and technique- 2019 data book

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Aoki, Honoka (JPN) (2001)	time	7.01	11.49	16.10	20.80	25.66		30.78	36.14	41.71	47.38	53.07		59.25	/ 1			
reaction time	interval		4.48	4.61	4.70	4.86		5.12	5.36	5.57	5.67	5.69	6.18			13.79	15.34	16.93
	velocity	6.42	7.81	7.59	7.45	7.20		6.84	6.53	6.28	6.17	6.15	6.47	6.75		7.61	6.84	6.20
H1 lead leg	strides		17	17	17	17		17	18	18	18	18		157				

2019 Asian Athletics Championships (Doha, QAT)

FINAL

date 22-Apr-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)		time	6.80	11.33	16.01	20.73	25.61		30.72	36.00	41.27	46.64	52.06		58.29	8 / 7			
reaction time	0.194	interval		4.53	4.68	4.72	4.88		5.11	5.28	5.27	5.37	5.42	6.23			13.93	15.27	16.06
		velocity	6.62	7.73	7.48	7.42	7.17		6.85	6.63	6.64	6.52	6.46	6.42	6.86		7.54	6.88	6.54
H1 lead leg	L	strides	24	17	17	17	17		18	18	18	18	18	22	204				
Mo Jiadie (CHN) (2000)		time	6.89	11.39	15.96	20.72	25.55		30.53	35.68	41.04	46.78	52.56		59.20	9 / 8			
reaction time	0.181	interval		4.50	4.57	4.76	4.83		4.98	5.15	5.36	5.74	5.78	6.64			13.83	14.96	16.88
		velocity	6.53	7.78	7.66	7.35	7.25		7.03	6.80	6.53	6.10	6.06	6.02	6.76		7.59	7.02	6.22
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	18	21.5	197.5				

Heat 2

date 21-Apr-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)		time	6.57	11.06	15.70	20.40	25.22		30.13	35.38	40.71	46.18	51.87		58.46	6 / 3			
reaction time	0.180	interval		4.49	4.64	4.70	4.82		4.91	5.25	5.33	5.47	5.69	6.59			13.83	14.98	16.49
		velocity	6.85	7.80	7.54	7.45	7.26		7.13	6.67	6.57	6.40	6.15	6.07	6.84		7.59	7.01	6.37
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	18	19	22.5	204.5				

Heat 1

date 21-Apr-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.64	11.02	15.58	20.23	25.12		30.23	35.42	40.70	46.31	51.92		58.28	6 / 3			
reaction time	0.224	interval		4.38	4.56	4.65	4.89		5.11	5.19	5.28	5.61	5.61	6.36			13.59	15.19	16.50
		velocity	6.78	7.99	7.68	7.53	7.16		6.85	6.74	6.63	6.24	6.24	6.29	6.86		7.73	6.91	6.36
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21.2	196.2				

2019 Chinese National Grand Prix 2 (Huangshi, CHN)

FINAL

date 12-Apr-19

CAA Hurdle Development (2019)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tao Xue (CHN) (1999)		time	7.12	11.66	16.35	21.14	26.04		31.36	36.47	41.89	47.36	53.04		59.57	6 / 1			
reaction time	0.287	interval		4.54	4.69	4.79	4.90		5.32	5.11	5.42	5.47	5.68	6.53			14.02	15.33	16.57
		velocity	6.32	7.71	7.46	7.31	7.14		6.58	6.85	6.46	6.40	6.16	6.13	6.71		7.49	6.85	6.34
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	18	21.2	194.2				
Wu Xueting (CHN) (1995)		time	7.00	11.52	16.34	21.24	26.30		31.44	36.88	42.70	48.50	54.42		60.92	4 / 2			
reaction time	0.224	interval		4.52	4.82	4.90	5.06		5.14	5.44	5.82	5.80	5.92	6.50			14.24	15.64	17.54
		velocity	6.43	7.74	7.26	7.14	6.92		6.81	6.43	6.01	6.03	5.91	6.15	6.57		7.37	6.71	5.99
H1 lead leg	L	strides	23	16	16	16	16		16	17	18	18	18	21	195				

Liu Xin (CHN) (1992)		time	7.42	12.22	16.96	21.76	26.76	31.98	37.32	42.86	48.62	54.40		60.97	2 / 3			
reaction time	0.355	interval		4.80	4.74	4.80	5.00	5.22	5.34	5.54	5.76	5.78	6.57			14.34	15.56	17.08
		velocity	6.06	7.29	7.38	7.29	7.00	6.70	6.55	6.32	6.08	6.06	6.09	6.56		7.32	6.75	6.15
H1 lead leg	L	strides	25	17	17	17	17	18	18	19	19	19	23.5	209.5				
Jiang Liyunzhe (CHN) (2002)		time	7.02	11.76	16.63	21.67	26.81	32.01	37.30	42.74	48.42	54.38		61.11	8 / 4			
reaction time	0.264	interval		4.74	4.87	5.04	5.14	5.20	5.29	5.44	5.68	5.96	6.73			14.65	15.63	17.08
		velocity	6.41	7.38	7.19	6.94	6.81	6.73	6.62	6.43	6.16	5.87	5.94	6.55		7.17	6.72	6.15
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	17	18	21.2	195.2				
Zhou Yu (CHN) (1999)		time	6.95	11.63	16.40	21.29	26.24	31.38	36.60	41.97	47.53	53.40		61.11	7 / 5			
reaction time	0.205	interval		4.68	4.77	4.89	4.95	5.14	5.22	5.37	5.56	5.87	7.71			14.34	15.31	16.80
		velocity	6.47	7.48	7.34	7.16	7.07	6.81	6.70	6.52	6.29	5.96	5.19	6.55		7.32	6.86	6.25
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	18	19	23	199				
Liu Hongjuan (CHN) (1996)		time	6.98	11.57	16.34	21.30	26.32	31.58	37.18	42.92	48.72	54.62		61.30	5 / 6			
reaction time	0.265	interval		4.59	4.77	4.96	5.02	5.26	5.60	5.74	5.80	5.90	6.68			14.32	15.88	17.44
		velocity	6.45	7.63	7.34	7.06	6.97	6.65	6.25	6.10	6.03	5.93	5.99	6.53		7.33	6.61	6.02
H1 lead leg	L	strides	23	16	16	16	16	17	18	18	19	19	22.2	200.2				
Wang Jiaqi (CHN) (2000)		time	7.20	11.74	16.42	21.24	26.46	31.88	37.50	43.34	49.20	55.24		61.96	3 / 7			
reaction time	0.300	interval		4.54	4.68	4.82	5.22	5.42	5.62	5.84	5.86	6.04	6.72			14.04	16.26	17.74
		velocity	6.25	7.71	7.48	7.26	6.70	6.46	6.23	5.99	5.97	5.79	5.95	6.46		7.48	6.46	5.92
H1 lead leg	R	strides	24	17	17	17	18	18	19	19	19	19	22.2	209.2				
Lu Zhangwei (CHN) (2001)		time	7.04	11.53					36.58	42.46	48.53	54.75		62.25	9 / 8			
reaction time	0.326	interval		4.49					25.05	5.88	6.07	6.22	7.50					18.17
		velocity	6.39	7.80					6.99	5.95	5.77	5.63	5.33	6.43				5.78
H1 lead leg	R	strides	24	17						19	19	19	23	121				

Heat 5

date 12-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wang Jiaqi (CHN) (2000)		time	7.10	11.64	16.34	21.26	26.42		31.94	37.62	43.30	49.18	55.05		61.69	3 / 1			
reaction time	0.265	interval		4.54	4.70	4.92	5.16		5.52	5.68	5.68	5.88	5.87	6.64			14.16	16.36	17.43
		velocity	6.34	7.71	7.45	7.11	6.78		6.34	6.16	6.16	5.95	5.96	6.02	6.48		7.42	6.42	6.02
H1 lead leg	R	strides		17	17	17	18		18	19	19	19	19	22.2	185.2				
Liu Xin (CHN) (1992)		time	7.09	11.71	16.55	21.52	26.72		32.25	37.77	43.36	49.20	55.07		61.85	8 / 2			
reaction time	0.310	interval		4.62	4.84	4.97	5.20		5.53	5.52	5.59	5.84	5.87	6.78			14.43	16.25	17.30
		velocity	6.35	7.58	7.23	7.04	6.73		6.33	6.34	6.26	5.99	5.96	5.90	6.47		7.28	6.46	6.07
H1 lead leg	L	strides	25	17	17	17	18		19	19	19	20	20	24	215				
Ma Jie (CHN) (1998)		time	7.10	11.82	16.70	22.00	27.66		33.56						67.77	2 / 7			
reaction time	0.335	interval		4.72	4.88	5.30	5.66		5.90								14.90		
		velocity	6.34	7.42	7.17	6.60	6.18		5.93						5.90		7.05		
H1 lead leg	L	strides		16	16	17	17		17						83				

Heat 4

date 12-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tao Xue (CHN) (1999)		time	7.17	11.77	16.55	21.30	26.26		31.34	36.70	42.24	47.81	53.50		60.12	8 / 1			
reaction time	0.349	interval		4.60	4.78	4.75	4.96		5.08	5.36	5.54	5.57	5.69	6.62			14.13	15.40	16.80
		velocity	6.28	7.61	7.32	7.37	7.06		6.89	6.53	6.32	6.28	6.15	6.04	6.65		7.43	6.82	6.25
H1 lead leg	R	strides	24	16	16	16	16		16	17	17	17	17	21.2	193.2				
Jiang Liyunzhe (CHN) (2002)		time	7.04	11.71	16.58	21.57	26.63		31.67	36.90	42.32	48.16	54.23		61.37	7 / 2			
reaction time	0.188	interval		4.67	4.87	4.99	5.06		5.04	5.23	5.42	5.84	6.07	7.14			14.53	15.33	17.33
		velocity	6.39	7.49	7.19	7.01	6.92		6.94	6.69	6.46	5.99	5.77	5.60	6.52		7.23	6.85	6.06
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	18	22	198				

Heat 3

date 12-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zhou Yu (CHN) (1999)		time	6.97	11.66	16.50	21.39	26.39		31.63	36.91	42.17	47.71	53.54		59.98	9 / 1			
reaction time	0.252	interval		4.69	4.84	4.89	5.00		5.24	5.28	5.26	5.54	5.83	6.44	PB		14.42	15.52	16.63
		velocity	6.46	7.46	7.23	7.16	7.00		6.68	6.63	6.65	6.32	6.00	6.21	6.67		7.28	6.77	6.31
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	19	22.2	198.2				
Liu Hongjuan (CHN) (1996)		time	6.86	11.43	16.19	21.10	26.06		31.30	36.57	42.04	47.69	53.48		60.19	7 / 2			
reaction time	0.227	interval		4.57	4.76	4.91	4.96		5.24	5.27	5.47	5.65	5.79	6.71			14.24	15.47	16.91
		velocity	6.56	7.66	7.35	7.13	7.06		6.68	6.64	6.40	6.19	6.04	5.96	6.65		7.37	6.79	6.21
H1 lead leg	L	strides	23	16	16	16	16		17	17	18	19	19	22.5	199.5				
Wang Chen (CHN) (1999)		time	7.09	11.81	16.72	21.83	27.01		32.35	37.84	43.67	49.80	56.86		63.98	8 / 4			
reaction time	0.259	interval		4.72	4.91	5.11	5.18		5.34	5.49	5.83	6.13	7.06	7.12			14.74	16.01	19.02
		velocity	6.35	7.42	7.13	6.85	6.76		6.55	6.38	6.00	5.71	4.96	5.62	6.25		7.12	6.56	5.52
H1 lead leg	L	strides	24	17	17	17	17		17	17	18	20	21	23	208				

Heat 2

date 12-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wu Xueting (CHN) (1995)		time	7.03	11.63	16.47	21.40	26.51		31.73	37.12	42.76	48.63	54.54		61.24	9 / 1			

reaction time	0.309	interval		4.60	4.84	4.93	5.11	5.22	5.39	5.64	5.87	5.91	6.70			14.37	15.72	17.42
		velocity	6.40	7.61	7.23	7.10	6.85	6.70	6.49	6.21	5.96	5.92	5.97	6.53		7.31	6.68	6.03
H1 lead leg	L	strides	23	16	16	16	16	16	17	17	18	18	21.2	194.2				
Lu Zhangwei (CHN) (2001)		time	6.98	11.52	16.12	20.84	25.74	30.94	36.56	42.20	48.04	54.20		61.28	3 / 3			
reaction time	0.237	interval		4.54	4.60	4.72	4.90	5.20	5.62	5.64	5.84	6.16	7.08			13.86	15.72	17.64
		velocity	6.45	7.71	7.61	7.42	7.14	6.73	6.23	6.21	5.99	5.68	5.65	6.53		7.58	6.68	5.95
H1 lead leg	R	strides		17	17	17	17	17	18	18	19	19	22.5	181.5				

Heat 1

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			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Xiao Xia (CHN) (1991)		time	7.04	11.82	16.75	21.82	26.94		32.41	37.92	43.67	49.46	55.17		61.97	9 / 1			
reaction time	0.399	interval		4.78	4.93	5.07	5.12		5.47	5.51	5.75	5.79	5.71	6.80			14.78	16.10	17.25
		velocity	6.39	7.32	7.10	6.90	6.84		6.40	6.35	6.09	6.04	6.13	5.88	6.45		7.10	6.52	6.09
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	21.2	193.2				
Hu Lihong (CHN) (1999)		time	6.97	11.53	16.25	21.02	26.02		31.31	36.73	42.41	48.36	54.65		62.30	7 / 2			
reaction time	0.210	interval		4.56	4.72	4.77	5.00		5.29	5.42	5.68	5.95	6.29	7.65			14.05	15.71	17.92
		velocity	6.46	7.68	7.42	7.34	7.00		6.62	6.46	6.16	5.88	5.56	5.23	6.42		7.47	6.68	5.86
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	18	22	195				

2019 Chinese National Grand Prix 1 (Zhaoqing, CHN)

FINAL

date 08-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.84	11.31	15.88	20.62	25.44		30.44	35.58	40.87	46.48	52.12		58.34	7 / 1			
reaction time	0.283	interval		4.47	4.57	4.74	4.82		5.00	5.14	5.29	5.61	5.64	6.22			13.78	14.96	16.54
		velocity	6.58	7.83	7.66	7.38	7.26		7.00	6.81	6.62	6.24	6.21	6.43	6.86		7.62	7.02	6.35
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21.5	196.5				
Lu Zhangwei (CHN) (2001)		time	6.91	11.44	16.03	20.75	25.71		30.84	36.08	41.48	47.21	52.88		59.22	6 / 2			
reaction time	0.260	interval		4.53	4.59	4.72	4.96		5.13	5.24	5.40	5.73	5.67	6.34	PB		13.84	15.33	16.80
		velocity	6.51	7.73	7.63	7.42	7.06		6.82	6.68	6.48	6.11	6.17	6.31	6.75		7.59	6.85	6.25
H1 lead leg	R	strides	24	17	17	17	17		17	17	17	18	18	22	201				
Liu Hongjuan (CHN) (1996)		time	6.88	11.40	15.96	20.76	25.64		30.82	36.06	41.54	47.12	52.92		59.65	4 / 3			
reaction time	0.250	interval		4.52	4.56	4.80	4.88		5.18	5.24	5.48	5.58	5.80	6.73			13.88	15.30	16.86
		velocity	6.54	7.74	7.68	7.29	7.17		6.76	6.68	6.39	6.27	6.03	5.94	6.71		7.56	6.86	6.23
H1 lead leg	L	strides	23	16	16	16	16		17	17	18	18	19	22.5	198.5				
Jiang Liyunzhe (CHN) (2002)		time	6.72	11.30	16.00	20.83	25.86		30.94	36.26	41.76	47.71	53.88		60.80	3 / 4			
reaction time	0.194	interval		4.58	4.70	4.83	5.03		5.08	5.32	5.50	5.95	6.17	6.92	PB		14.11	15.43	17.62
		velocity	6.70	7.64	7.45	7.25	6.96		6.89	6.58	6.36	5.88	5.67	5.78	6.58		7.44	6.80	5.96
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21.5	196.5				
Lan Tianlu (CHN) (1999)		time	6.85	11.26	15.88	20.60	25.47		30.56	35.83	41.47	47.44	53.76		61.06	9 / 5			
reaction time	0.303	interval		4.41	4.62	4.72	4.87		5.09	5.27	5.64	5.97	6.32	7.30			13.75	15.23	17.93
		velocity	6.57	7.94	7.58	7.42	7.19		6.88	6.64	6.21	5.86	5.54	5.48	6.55		7.64	6.89	5.86
H1 lead leg	L	strides	23	16	16	16	16		17	17	18	19	19	23	200				
Liu Xin (CHN) (1992)		time	7.16	11.85	16.68	21.53	26.66		32.06	37.48	43.04	48.78	54.65		61.71	8 / 6			
reaction time	0.269	interval		4.69	4.83	4.85	5.13		5.40	5.42	5.56	5.74	5.87	7.06			14.37	15.95	17.17
		velocity	6.28	7.46	7.25	7.22	6.82		6.48	6.46	6.29	6.10	5.96	5.67	6.48		7.31	6.58	6.12
H1 lead leg	L	strides	25	17	17	17	18		18	19	19	19	20	24	213				
Hu Lihong (CHN) (1999)		time	6.98	11.50	16.20	21.00	26.02		31.24	36.68	42.30	48.22	54.46		62.02	2 / 7			
reaction time	0.191	interval		4.52	4.70	4.80	5.02		5.22	5.44	5.62	5.92	6.24	7.56			14.02	15.68	17.78
		velocity	6.45	7.74	7.45	7.29	6.97		6.70	6.43	6.23	5.91	5.61	5.29	6.45		7.49	6.70	5.91
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	22	194				
Di Chengqian (CHN) (1999)		time	6.88	11.50	16.26	21.24	26.42		31.86	37.50	43.26	49.56			63.58	5 / 8			
reaction time	0.197	interval		4.62	4.76	4.98	5.18		5.44	5.64	5.76	6.30					14.36	16.26	
		velocity	6.54	7.58	7.35	7.03	6.76		6.43	6.21	6.08	5.56			6.29		7.31	6.46	
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	19			157				

Heat 5

date 07-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Liu Hongjuan (CHN) (1996)		time	6.99	11.63	16.35	21.25	26.13		31.35	36.78	42.37	48.15	53.99		60.55	7 / 1			
reaction time	0.278	interval		4.64	4.72	4.90	4.88		5.22	5.43	5.59	5.78	5.84	6.56			14.26	15.53	17.21
		velocity	6.44	7.54	7.42	7.14	7.17		6.70	6.45	6.26	6.06	5.99	6.10	6.61		7.36	6.76	6.10
H1 lead leg	L	strides	23	16	16	16	16		17	18	18	19	19	22.5	200.5				
Liu Xin (CHN) (1992)		time	7.14	11.86	16.75	21.62	26.63		31.75	37.00	42.49	48.13	54.00		60.80	6 / 2			
reaction time	0.247	interval		4.72	4.89	4.87	5.01		5.12	5.25	5.49	5.64	5.87	6.80			14.48	15.38	17.00
		velocity	6.30	7.42	7.16	7.19	6.99		6.84	6.67	6.38	6.21	5.96	5.88	6.58		7.25	6.83	6.18
H1 lead leg	L	strides	24	17	17	17	17		18	18	19	19	20	24	210				
Chen Liying (CHN) (1994)		time	7.05	11.75	16.43	21.19	26.06		31.21	36.47	41.92	47.80	54.04		61.01	8 / 3			
reaction time	0.194	interval		4.70	4.68	4.76	4.87		5.15	5.26	5.45	5.88	6.24	6.97			14.14	15.28	17.57
		velocity	6.38	7.45	7.48	7.35	7.19		6.80	6.65	6.42	5.95	5.61	5.74	6.56		7.43	6.87	5.98

H1 lead leg	R	strides	24	16	16	16	16		17	17	17	18	20	23	200			
Ma Jie (CHN) (1998)		time	6.79	11.36	16.15	21.25	26.88		32.95	39.39	46.25				67.91	4 / 8		
reaction time	0.211	interval		4.57	4.79	5.10	5.63		6.07	6.44	6.86						14.46	18.14
		velocity	6.63	7.66	7.31	6.86	6.22		5.77	5.43	5.10				5.89		7.26	5.79
H1 lead leg	L	strides	23	16	16	16	16		17	19	19				142			

Heat 4

date 07-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Lu Zhangwei (CHN) (2001)		time	6.85	11.38	15.96	20.62	25.47		30.51	35.71	41.12	46.90	53.02		59.89	6 / 1			
reaction time	0.220	interval		4.53	4.58	4.66	4.85		5.04	5.20	5.41	5.78	6.12	6.87			13.77	15.09	17.31
		velocity	6.57	7.73	7.64	7.51	7.22		6.94	6.73	6.47	6.06	5.72	5.82	6.68		7.63	6.96	6.07
H1 lead leg	R	strides	24	17	17	17	17		17	17	17	19	19	23	204				
Lan Tianlu (CHN) (1999)		time	6.97	11.62	16.48	21.25	26.10		31.18	36.67	42.39	48.23	54.03		60.76	5 / 2			
reaction time	0.256	interval		4.65	4.86	4.77	4.85		5.08	5.49	5.72	5.84	5.80	6.73			14.28	15.42	17.36
		velocity	6.46	7.53	7.20	7.34	7.22		6.89	6.38	6.12	5.99	6.03	5.94	6.58		7.35	6.81	6.05
H1 lead leg	L	strides	23	16	16	16	16		17	17	18	18	18	22	197				
Ou Ying (CHN) (2001)		time	6.97	11.63	16.43	21.25	26.31		31.55	36.95	42.52	48.23	54.29		61.52	4 / 3			
reaction time	0.280	interval		4.66	4.80	4.82	5.06		5.24	5.40	5.57	5.71	6.06	7.23			14.28	15.70	17.34
		velocity	6.46	7.51	7.29	7.26	6.92		6.68	6.48	6.28	6.13	5.78	5.53	6.50		7.35	6.69	6.06
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	18	19	22.5	202.5				
Ye Xiulan (CHN) (1998)		time	6.99	11.60	16.50	21.39	26.53		31.78	37.37	43.12	48.93	54.89		61.91	3 / 4			
reaction time	0.252	interval		4.61	4.90	4.89	5.14		5.25	5.59	5.75	5.81	5.96	7.02			14.40	15.98	17.52
		velocity	6.44	7.59	7.14	7.16	6.81		6.67	6.26	6.09	6.02	5.87	5.70	6.46		7.29	6.57	5.99
H1 lead leg	R	strides	24	16	17	16	17		17	18	18	18	18	22.5	201.5				

Heat 3

date 07-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wu Fangfang (CHN) (1997)		time	7.12	11.91	16.74	21.67	26.69		32.00	37.49	43.11	48.76	54.76		61.04	7 / 1			
reaction time	0.319	interval		4.79	4.83	4.93	5.02		5.31	5.49	5.62	5.65	6.00	6.28			14.55	15.82	17.27
		velocity	6.32	7.31	7.25	7.10	6.97		6.59	6.38	6.23	6.19	5.83	6.37	6.55		7.22	6.64	6.08
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	19	22	197				
Liang Yina (CHN) (2001)		time	7.06	11.73	16.55	21.45	26.54		31.83	37.52	43.29	49.22	55.39		62.02	8 / 2			
reaction time	0.376	interval		4.67	4.82	4.90	5.09		5.29	5.69	5.77	5.93	6.17	6.63			14.39	16.07	17.87
		velocity	6.37	7.49	7.26	7.14	6.88		6.62	6.15	6.07	5.90	5.67	6.03	6.45		7.30	6.53	5.88
H1 lead leg	L	strides	24	17	17	17	17		18	18	18	19	19	22	206				
Wang Chen (CHN) (1999)		time	6.92	11.56	16.43	21.44	26.53		31.86	37.47	43.63	49.74	55.74		62.33	4 / 3			
reaction time	0.235	interval		4.64	4.87	5.01	5.09		5.33	5.61	6.16	6.11	6.00	6.59			14.52	16.03	18.27
		velocity	6.50	7.54	7.19	6.99	6.88		6.57	6.24	5.68	5.73	5.83	6.07	6.42		7.23	6.55	5.75
H1 lead leg	L	strides	24	17	17	17	17		17	17	19	19	19	22.5	205.5				
Wu Xueting (CHN) (1995)		time	6.94	11.60	16.50	21.45	26.59		31.87	37.44	43.21	49.09	55.32		62.34	9 / 4			
reaction time	0.345	interval		4.66	4.90	4.95	5.14		5.28	5.57	5.77	5.88	6.23	7.02			14.51	15.99	17.88
		velocity	6.48	7.51	7.14	7.07	6.81		6.63	6.28	6.07	5.95	5.62	5.70	6.42		7.24	6.57	5.87
H1 lead leg	L	strides	22	16	16	16	16		16	17	18	18	18	21.5	194.5				
Xiao Xia (CHN) (1991)		time	7.11	11.96	17.12	22.41	27.86		33.42	39.12	44.85	50.47	56.27		63.02	1 / 6			
reaction time	0.370	interval		4.85	5.16	5.29	5.45		5.56	5.70	5.73	5.62	5.80	6.75			15.30	16.71	17.15
		velocity	6.33	7.22	6.78	6.62	6.42		6.29	6.14	6.11	6.23	6.03	5.93	6.35		6.86	6.28	6.12
H1 lead leg	L	strides	22	16	16	17	17		17	17	17	17	17	21	194				

Heat 2

date 07-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Di Chengqian (CHN) (1999)		time	6.74	11.33	16.03	20.80	25.78		31.03	36.48	42.06	47.92	53.75		60.53	6 / 1			
reaction time	0.273	interval		4.59	4.70	4.77	4.98		5.25	5.45	5.58	5.86	5.83	6.78			14.06	15.68	17.27
		velocity	6.68	7.63	7.45	7.34	7.03		6.67	6.42	6.27	5.97	6.00	5.90	6.61		7.47	6.70	6.08
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	21	193				
Tao Xue (CHN) (1999)		time	7.04	11.56	16.21	20.97	25.93		31.00	36.52	42.31	48.34	54.42		61.29	2 / 2			
reaction time	0.307	interval		4.52	4.65	4.76	4.96		5.07	5.52	5.79	6.03	6.08	6.87			13.93	15.55	17.90
		velocity	6.39	7.74	7.53	7.35	7.06		6.90	6.34	6.04	5.80	5.76	5.82	6.53		7.54	6.75	5.87
H1 lead leg	L	strides	23	16	16	16	16		16	17	18	18	18	21	195				
Huang Yan (CHN) (1996)		time	6.72	11.26	15.98	20.64	25.48		30.60	36.17	41.74	47.56	55.35		74.88	9 / 8			
reaction time	0.319	interval		4.54	4.72	4.66	4.84		5.12	5.57	5.57	5.82	7.79	19.53			13.92	15.53	19.18
		velocity	6.70	7.71	7.42	7.51	7.23		6.84	6.28	6.28	6.01	4.49	2.05	5.34		7.54	6.76	5.47
H1 lead leg	L	strides	24	17	17	17	17		18	19	19	19	23	27	217				

Heat 1

date 07-Apr-19 — *CAA Hurdle Development (2019)*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	7.00	11.53	16.20	21.04	26.02		31.18	36.47	42.19	47.90	53.69		60.19	8 / 1			
reaction time	0.319	interval		4.53	4.67	4.84	4.98		5.16	5.29	5.72	5.71	5.79	6.50			14.04	15.43	17.22
		velocity	6.43	7.73	7.49	7.23	7.03		6.78	6.62	6.12	6.13	6.04	6.15	6.65		7.48	6.80	6.10
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	18	21	197				

Hu Lihong (CHN) (1999)		time	7.04	11.63	16.40	21.27	26.29	31.50	36.87	42.42	48.11	54.04		60.94	7 / 2			
reaction time	0.186	interval		4.59	4.77	4.87	5.02	5.21	5.37	5.55	5.69	5.93	6.90			14.23	15.60	17.17
		velocity	6.39	7.63	7.34	7.19	6.97	6.72	6.52	6.31	6.15	5.90	5.80	6.56		7.38	6.73	6.12
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	17	17	21	194				
Jiang Liyunzhe (CHN) (2002)		time	6.84	11.62	16.37	21.30	26.36	31.68	37.07	42.59	48.52	54.45		60.97	1 / 3			
reaction time	0.217	interval		4.78	4.75	4.93	5.06	5.32	5.39	5.52	5.93	5.93	6.52	**PB**		14.46	15.77	17.38
		velocity	6.58	7.32	7.37	7.10	6.92	6.58	6.49	6.34	5.90	5.90	6.13	6.56		7.26	6.66	6.04
H1 lead leg	L	strides	24	16	16	16	16	17	17	17	18	18	21	196				
Ding Xiaoxue (CHN) (1998)		time	7.11	11.93	16.92	22.06	27.44	33.10	39.06	45.48				67.07	2 / 9			
reaction time	0.295	interval		4.82	4.99	5.14	5.38	5.66	5.96	6.42						14.95	17.00	
		velocity	6.33	7.26	7.01	6.81	6.51	6.18	5.87	5.45				5.96		7.02	6.18	
H1 lead leg	L	strides	25	17	17	17	18	18	19	20				151				

2018 National Sports Festival (Fukui, JPN)

FINAL

date 06-Oct-18

Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Utsunomiya, Eri (JPN) (1993)		time	6.50	10.84	15.28	19.88	24.83		29.80	34.87	40.06	45.43	51.10		57.54	7 / 1			
reaction time	0.159	interval		4.34	4.44	4.60	4.95		4.97	5.07	5.19	5.37	5.67	6.44			13.38	14.99	16.23
		velocity	6.92	8.06	7.88	7.61	7.07		7.04	6.90	6.74	6.52	6.17	6.21	6.95		7.85	7.00	6.47
H1 lead leg		strides		15	15	15	16		16	17	17	17	17		145				

2018 Chinese National Championships (Taiyuan, CHN)

FINAL

date 16-Sep-18

Henson (2018) - coaching observations

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)		time	6.73	11.20	15.77	20.39	25.13		29.95	35.09	40.26	45.60	51.25		57.61	5 / 1			
reaction time		interval		4.47	4.57	4.62	4.74		4.82	5.14	5.17	5.34	5.65	6.36			13.66	14.70	16.16
		velocity	6.69	7.83	7.66	7.58	7.38		7.26	6.81	6.77	6.55	6.19	6.29	6.94		7.69	7.14	6.50
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	18	19	23	205				
Mo Jiadie (CHN) (2000)		time	6.76	11.18	15.68	20.32	25.09		30.08	35.28	40.69	46.18	51.78		57.86	3 / 2			
reaction time		interval		4.42	4.50	4.64	4.77		4.99	5.20	5.41	5.49	5.60	6.08	**PB**		13.56	14.96	16.50
		velocity	6.66	7.92	7.78	7.54	7.34		7.01	6.73	6.47	6.38	6.25	6.58	6.91		7.74	7.02	6.36
H1 lead leg	L	strides	24	16	16	16	16		17	17	18	18	18	21.5	197.5				
Wu Xueting (CHN) (1995)		time	6.86	11.27	15.75	20.37	25.23		30.28	35.47	40.82	46.31	52.00		58.65	4 / 3			
reaction time		interval		4.41	4.48	4.62	4.86		5.05	5.19	5.35	5.49	5.69	6.65			13.51	15.10	16.53
		velocity	6.56	7.94	7.81	7.58	7.20		6.93	6.74	6.54	6.38	6.15	6.02	6.82		7.77	6.95	6.35
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	18	21.5	189.5				
Hu Lihong (CHN) (1999)		time	6.96	11.51	16.25	20.97	25.93		31.03	36.27	41.65	47.18	52.92		59.62	7 / 4			
reaction time		interval		4.55	4.74	4.72	4.96		5.10	5.24	5.38	5.53	5.74	6.70			14.01	15.30	16.65
		velocity	6.47	7.69	7.38	7.42	7.06		6.86	6.68	6.51	6.33	6.10	5.97	6.71		7.49	6.86	6.31
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	20.5	192.5				
Liu Xin (CHN) (1992)		time	7.11	11.72	16.48	21.30	26.21		31.18	36.42	41.94	47.54	53.34		59.80	1 / 5			
reaction time		interval		4.61	4.76	4.82	4.91		4.97	5.24	5.52	5.60	5.80	6.46			14.19	15.12	16.92
		velocity	6.33	7.59	7.35	7.26	7.13		7.04	6.68	6.34	6.25	6.03	6.19	6.69		7.40	6.94	6.21
H1 lead leg	L	strides	25	17	17	17	17		17	18	19	19	20	23.5	209.5				
Ou Ying (CHN) (2001)		time	7.00	11.65	16.42	21.28	26.26		31.46	36.78	42.16	47.78	53.67		60.42	6 / 6			
reaction time		interval		4.65	4.77	4.86	4.98		5.20	5.32	5.38	5.62	5.89	6.75			14.28	15.50	16.89
		velocity	6.43	7.53	7.34	7.20	7.03		6.73	6.58	6.51	6.23	5.94	5.93	6.62		7.35	6.77	6.22
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	18	22	200				
Wu Fangfang (CHN) (1997)		time	7.06	11.70	16.36	21.14	26.07		31.23	36.64	42.21	47.81	58.36		60.44	2 / 7			
reaction time		interval		4.64	4.66	4.78	4.93		5.16	5.41	5.57	5.60	10.55	2.08			14.08	15.50	21.72
		velocity	6.37	7.54	7.51	7.32	7.10		6.78	6.47	6.28	6.25	3.32	19.23	6.62		7.46	6.77	4.83
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	19	23	197				
Tao Xue (CHN) (1999)		time	7.12	11.71	16.35	21.12	26.04		31.23	36.65	42.21	48.16	54.30		61.55	8 / 8			
reaction time		interval		4.59	4.64	4.77	4.92		5.19	5.42	5.56	5.95	6.14	7.25			14.00	15.53	17.65
		velocity	6.32	7.63	7.54	7.34	7.11		6.74	6.46	6.29	5.88	5.70	5.52	6.50		7.50	6.76	5.95
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21.5	196.5				

Heat 3

date 15-Sep-18

Henson (2018) - coaching observations

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Mo Jiadie (CHN) (2000)		time	6.74	11.08	15.58	20.13	24.99		30.12	35.55	41.26	47.15	53.17		59.60	5 / 1			
reaction time		interval		4.34	4.50	4.55	4.86		5.13	5.43	5.71	5.89	6.02	6.43			13.39	15.42	17.62
		velocity	6.68	8.06	7.78	7.69	7.20		6.82	6.45	6.13	5.94	5.81	6.22	6.71		7.84	6.81	5.96
H1 lead leg	L	strides	24	16	16	16	16		17	18	18	19	19	21.5	200.5				
Tao Xue (CHN) (1999)		time	6.95	11.51	16.17	20.85	25.79		31.03	36.40	42.09	47.92	53.82		60.48	7 / 2			
reaction time		interval		4.56	4.66	4.68	4.94		5.24	5.37	5.69	5.83	5.90	6.66			13.90	15.55	17.42
		velocity	6.47	7.68	7.51	7.48	7.09		6.68	6.52	6.15	6.00	5.93	6.01	6.61		7.55	6.75	6.03
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18	21	195				

Qiu Zhangyan (CHN) (1998)		time	7.04	11.70	16.53	21.42	26.46	31.56	36.80	42.24	47.93	53.79		60.51	2 / 3			
reaction time		interval		4.66	4.83	4.89	5.04	5.10	5.24	5.44	5.69	5.86	6.72			14.38	15.38	16.99
		velocity	6.39	7.51	7.25	7.16	6.94	6.86	6.68	6.43	6.15	5.97	5.95	6.61		7.30	6.83	6.18
H1 lead leg	L	strides	24	17	17	17	17	17	17	18	18	19	23	204				
Chen Liying (CHN) (1994)		time	7.00	11.60	16.32	21.17	26.34	31.59	36.97	42.63	48.34	54.28		61.00	4 / 4			
reaction time		interval		4.60	4.72	4.85	5.17	5.25	5.38	5.66	5.71	5.94	6.72			14.17	15.80	17.31
		velocity	6.43	7.61	7.42	7.22	6.77	6.67	6.51	6.18	6.13	5.89	5.95	6.56		7.41	6.65	6.07
H1 lead leg	L	strides	24	16	16	17	17	17	17	18	18	19	22	201				
Zhuang Yilan (CHN) (2000)		time	6.87	11.38	16.11	21.00	26.11	31.38	36.85	42.55	48.41	54.52		61.38	6 / 5			
reaction time		interval		4.51	4.73	4.89	5.11	5.27	5.47	5.70	5.86	6.11	6.86			14.13	15.85	17.67
		velocity	6.55	7.76	7.40	7.16	6.85	6.64	6.40	6.14	5.97	5.73	5.83	6.52		7.43	6.62	5.94
H1 lead leg	L	strides	25	15	17	17	17	17	17	17	19	19	21.5	201.5				
Liu Hongjuan (CHN) (1996)		time	7.06	11.61	16.25	21.07	26.01	31.20	36.72	42.36	48.27	54.57		61.85	3 / 6			
reaction time		interval		4.55	4.64	4.82	4.94	5.19	5.52	5.64	5.91	6.30	7.28			14.01	15.65	17.85
		velocity	6.37	7.69	7.54	7.26	7.09	6.74	6.34	6.21	5.92	5.56	5.49	6.47		7.49	6.71	5.88
H1 lead leg	L	strides	23	16	16	16	16	17	18	18	19	20	23	202				

Heat 2

date 15-Sep-18

Henson (2018) - coaching observations

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wu Xueting (CHN) (1995)		time	6.86	11.26	15.83	20.51	25.41		30.53	35.87	41.32	46.85	52.47		58.81	5 / 1			
reaction time		interval		4.40	4.57	4.68	4.90		5.12	5.34	5.45	5.53	5.62	6.34			13.65	15.36	16.60
		velocity	6.56	7.95	7.66	7.48	7.14		6.84	6.55	6.42	6.33	6.23	6.31	6.80		7.69	6.84	6.33
H1 lead leg	L	strides	22	15	15	15	16		16	17	17	17	17	21	188				
Hu Lihong (CHN) (1999)		time	6.94	11.48	16.25	21.04	25.93		31.00	36.20	41.51	47.00	52.69		59.46	2 / 2			
reaction time		interval		4.54	4.77	4.79	4.89		5.07	5.20	5.31	5.49	5.69	6.77	PB		14.10	15.16	16.49
		velocity	6.48	7.71	7.34	7.31	7.16		6.90	6.73	6.59	6.38	6.15	5.91	6.73		7.45	6.93	6.37
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	20.5	192.5				
Wu Fangfang (CHN) (1997)		time	7.00	11.60	16.27	21.05	26.00		31.28	36.74	42.21	47.81	53.52		59.88	3 / 3			
reaction time		interval		4.60	4.67	4.78	4.95		5.28	5.46	5.47	5.60	5.71	6.36			14.05	15.69	16.78
		velocity	6.43	7.61	7.49	7.32	7.07		6.63	6.41	6.40	6.25	6.13	6.29	6.68		7.47	6.69	6.26
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17	21.5	194.5				
Wang Hongyan (CHN) (1998		time	7.04	11.73	16.53	21.46	26.41		31.69	37.12	42.71	48.50	54.39		60.96	7 / 4			
reaction time		interval		4.69	4.80	4.93	4.95		5.28	5.43	5.59	5.79	5.89	6.57			14.42	15.66	17.27
		velocity	6.39	7.46	7.29	7.10	7.07		6.63	6.45	6.26	6.04	5.94	6.09	6.56		7.28	6.70	6.08
H1 lead leg	L	strides	25	17	17	17	17		18	18	18	19	19	22.7	207.7				
Ding Xiaoxue (CHN) (1998)		time	6.90	11.66	16.31	21.12	26.11		31.28	36.60	42.16	48.01	54.22		61.56	6 / 5			
reaction time		interval		4.76	4.65	4.81	4.99		5.17	5.32	5.56	5.85	6.21	7.34			14.22	15.48	17.62
		velocity	6.52	7.35	7.53	7.28	7.01		6.77	6.58	6.29	5.98	5.64	5.45	6.50		7.38	6.78	5.96
H1 lead leg	L	strides	25	18	17	17	17		17	18	19	19	20	24	211				
Di Chengqian (CHN) (1999)		time	6.89	11.48	16.27	21.47									74.18	4 / 6			
reaction time		interval		4.59	4.79	5.20											14.58		
		velocity	6.53	7.63	7.31	6.73									5.39		7.20		
H1 lead leg	L	strides	23	16	16	18									73				

Heat 1

date 15-Sep-18

Henson (2018) - coaching observations

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Yan (CHN) (1996)		time	6.74	11.21	15.82	20.45	25.18		30.05	35.23	40.57	46.05	51.80		58.67	7 / 1			
reaction time		interval		4.47	4.61	4.63	4.73		4.87	5.18	5.34	5.48	5.75	6.87			13.71	14.78	16.57
		velocity	6.68	7.83	7.59	7.56	7.40		7.19	6.76	6.55	6.39	6.09	5.82	6.82		7.66	7.10	6.34
H1 lead leg	L	strides	24	17	17	17	17		17	18	18	18	19	23	205				
Ou Ying (CHN) (2001)		time	7.02	11.61	16.37	21.10	26.00		31.10	36.28	41.57	47.01	52.69		59.16	6 / 2			
reaction time		interval		4.59	4.76	4.73	4.90		5.10	5.18	5.29	5.44	5.68	6.47	PB		14.08	15.18	16.41
		velocity	6.41	7.63	7.35	7.40	7.14		6.86	6.76	6.62	6.43	6.16	6.18	6.76		7.46	6.92	6.40
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	18	21.7	199.7				
Liu Xin (CHN) (1992)		time	7.04	11.58	16.16	20.90	25.76		30.83	36.07	41.41	46.98	52.67		59.18	3 / 3			
reaction time		interval		4.54	4.58	4.74	4.86		5.07	5.24	5.34	5.57	5.69	6.51			13.86	15.17	16.60
		velocity	6.39	7.71	7.64	7.38	7.20		6.90	6.68	6.55	6.28	6.15	6.14	6.76		7.58	6.92	6.33
H1 lead leg	L	strides	25	17	17	17	17		17	18	18	19	19	25.3	209.3				
Liang Yina (CHN) (2001)		time	7.02	11.56	16.23	20.99	25.92		31.03	36.43	41.93	47.66	53.69		60.38	5 / 4			
reaction time		interval		4.54	4.67	4.76	4.93		5.11	5.40	5.50	5.73	6.03	6.69			13.97	15.44	17.26
		velocity	6.41	7.71	7.49	7.35	7.10		6.85	6.48	6.36	6.11	5.80	5.98	6.62		7.52	6.80	6.08
H1 lead leg	L	strides	25	17	17	17	17		17	18	18	18			164				
Zou Yifan (CHN) (2000)		time	7.06	11.68	16.42	21.17	26.03		31.11	36.40	42.00	47.88	53.94		60.48	4 / 5			
reaction time		interval		4.62	4.74	4.75	4.86		5.08	5.29	5.60	5.88	6.06	6.54			14.11	15.23	17.54
		velocity	6.37	7.58	7.38	7.37	7.20		6.89	6.62	6.25	5.95	5.78	6.12	6.61		7.44	6.89	5.99
H1 lead leg	L	strides	24	17	17	17	17		17	17	18	20			164				

Wang Chen (CHN) (1999)		time	6.79	11.31	15.98	20.77	25.79		31.06	36.78	42.92			63.63	2 / 6			
reaction time		interval		4.52	4.67	4.79	5.02		5.27	5.72	6.14					13.98	16.01	
		velocity	6.63	7.74	7.49	7.31	6.97		6.64	6.12	5.70			6.29		7.51	6.56	
H1 lead leg	L	strides	23	17	17	17	17		17	18	19			145				

2018 IAAF Continental Cup (Ostrava, CZE) (TV Analysis)

FINAL date 09-Sep-18

Henson (2021) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Janieve (JAM) (1993		time	6.36	10.60	14.94	19.32	23.76		28.28	32.92	37.62	42.64	47.64		53.62	1 / 1			
reaction time	0.156	interval		4.24	4.34	4.38	4.44		4.52	4.64	4.70	5.02	5.00	5.98			12.96	13.60	14.72
		velocity	7.08	8.25	8.06	7.99	7.88		7.74	7.54	7.45	6.97	7.00	6.69	7.46		8.10	7.72	7.13
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19.2	178.2				
Little, Shamier (USA) (1995)		time	6.28	10.52	14.88	19.32	23.84		28.36	33.00	37.84	42.80	47.88		53.86	5 / 2			
reaction time	0.223	interval		4.24	4.36	4.44	4.52		4.52	4.64	4.84	4.96	5.08	5.98			13.04	13.68	14.88
		velocity	7.17	8.25	8.03	7.88	7.74		7.74	7.54	7.23	7.06	6.89	6.69	7.43		8.05	7.68	7.06
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	15	16	19.2	178.2				
Ryzhykova, Anna (UKR) (19		time	6.36	10.48	14.68	19.00	23.36		28.00	32.88	37.80	43.04	48.24		54.47	8 / 3			
reaction time	0.172	interval		4.12	4.20	4.32	4.36		4.64	4.88	4.92	5.24	5.20	6.23			12.64	13.88	15.36
		velocity	7.08	8.50	8.33	8.10	8.03		7.54	7.17	7.11	6.68	6.73	6.42	7.34		8.31	7.56	6.84
H1 lead leg	R	strides	22	14	14	14	14		15	15	15	16	16	19.7	174.7				
Beesley, Meghan (GBR) (198		time	6.24	10.44	14.84	19.20	23.72		28.40	33.32	38.52	43.96	49.40		55.58	4 / 4			
reaction time	0.170	interval		4.20	4.40	4.36	4.52		4.68	4.92	5.20	5.44	5.44	6.18			12.96	14.12	16.08
		velocity	7.21	8.33	7.95	8.03	7.74		7.48	7.11	6.73	6.43	6.43	6.47	7.20		8.10	7.44	6.53
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	18	18	22	196				
Yusuf Jamal, Aminat (BRN)		time	6.20	10.32	14.52	18.72	23.04		27.64	32.64	37.80	43.16	48.84		55.65	3 / 5			
reaction time	0.194	interval		4.12	4.20	4.20	4.32		4.60	5.00	5.16	5.36	5.68	6.81			12.52	13.92	16.20
		velocity	7.26	8.50	8.33	8.33	8.10		7.61	7.00	6.78	6.53	6.16	5.87	7.19		8.39	7.54	6.48
H1 lead leg	R	strides	23	15	15	15	15		15	16	17	17	18	21.5	187.5				
Nel, Wenda (RSA) (1988)		time	6.32	10.56	15.04	19.52	24.12		28.80	33.68	38.76	44.12	49.80		56.54	2 / 6			
reaction time	0.192	interval		4.24	4.48	4.48	4.60		4.68	4.88	5.08	5.36	5.68	6.74			13.20	14.16	16.12
		velocity	7.12	8.25	7.81	7.81	7.61		7.48	7.17	6.89	6.53	6.16	5.93	7.07		7.95	7.42	6.51
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	18	19	22.5	196.5				
Lhabze, Lamiae (MAR) (1984		time	6.44	10.76	15.20	19.72	24.40		29.28	34.36		45.04	50.68		57.35	6 / 7			
reaction time	0.158	interval		4.32	4.44	4.52	4.68		4.88	5.08		10.68	5.64	6.67			13.28	14.64	16.32
		velocity	6.99	8.10	7.88	7.74	7.48		7.17	6.89		6.55	6.21	6.00	6.97		7.91	7.17	6.43
H1 lead leg	L	strides	23	15	15	15	15		15	16			17	19.5	150.5				
Utsunomiya, Eri (JPN) (1993		time	6.24	10.48	14.92	19.48	24.36		29.72	34.96	40.32	45.96			58.92	7 / 8			
reaction time	0.181	interval		4.24	4.44	4.56	4.88		5.36	5.24	5.36	5.64					13.24	15.48	
		velocity	7.21	8.25	7.88	7.68	7.17		6.53	6.68	6.53	6.21			6.79		7.93	6.78	
H1 lead leg	L	strides	23	15	15	15	16		18	17		18			137				

2018 Weltklasse (Zürich, SUI) (TV Analysis)

FINAL date 30-Aug-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.24	10.36	14.68	19.16	23.68	25.7	28.16	32.76	37.56	42.60	47.76		53.88	5 / 1			
reaction time	0.184	interval		4.12	4.32	4.48	4.52		4.48	4.60	4.80	5.04	5.16	6.12			12.92	13.60	15.00
		velocity	7.21	8.50	8.10	7.81	7.74	7.78	7.81	7.61	7.29	6.94	6.78	6.54	7.42		8.13	7.72	7.00
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	20.2	179.2				
Little, Shamier (USA) (1995)		time	6.24	10.44	14.75	19.20	23.64	25.6	28.24	32.96	37.84	42.88	48.08		54.21	3 / 2			
reaction time	0.213	interval		4.20	4.31	4.45	4.44		4.60	4.72	4.88	5.04	5.20	6.13			12.96	13.76	15.12
		velocity	7.21	8.33	8.12	7.87	7.88	7.81	7.61	7.42	7.17	6.94	6.73	6.53	7.38		8.10	7.63	6.94
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	17	20	182				
Russell, Janieve (JAM) (1993		time	6.52	10.80	15.16		24.12	26.1	28.68	33.32	38.12	43.12	48.32		54.38	6 / 3			
reaction time	0.153	interval		4.28	4.36		8.96		4.56	4.64	4.80	5.00	5.20	6.06					15.00
		velocity	6.90	8.18	8.03		7.81	7.66	7.68	7.54	7.29	7.00	6.73	6.60	7.36				7.00
H1 lead leg	R	strides	22	15	15				15	15	16		17	20	135				
Moline, Georganne (USA) (1		time	6.52	10.72	15.04		23.92	25.9	28.48	33.16		43.24	48.76		55.00	2 / 4			
reaction time	0.261	interval		4.20	4.32		8.88		4.56	4.68		10.08	5.52	6.24					15.60
		velocity	6.90	8.33	8.10		7.88	7.72	7.68	7.48		6.94	6.34	6.41	7.27				6.73
H1 lead leg	L	strides	23	16	15				15	15			17	20.2	121.2				
Doyle, Eilidh (GBR) (1987)		time	6.52	10.76	15.08		23.96	26.0	28.68	33.48		43.64	48.92		55.05	7 / 5			
reaction time	0.176	interval		4.24	4.32		8.88		4.72	4.80		10.16	5.28	6.13					15.44
		velocity	6.90	8.25	8.10		7.88	7.69	7.42	7.29		6.89	6.63	6.53	7.27				6.80
H1 lead leg	L	strides	23	15	15				16	16			17	21	123				
Sprunger, Leá (SUI) (1990)		time	6.52	10.84	15.20	19.72	24.20	26.2	28.96	33.84	38.84	44.00	49.44		55.36	4 / 6			
reaction time	0.174	interval		4.32	4.36	4.52	4.48		4.76	4.88	5.00	5.16	5.44	5.92			13.20	14.12	15.60
		velocity	6.90	8.10	8.03	7.74	7.81	7.63	7.35	7.17	7.00	6.78	6.43	6.76	7.23		7.95	7.44	6.73

H1 lead leg	R	strides	21	14	14	14	14		15	15	15		17	18.5	157.5			
Watson, Sage (CAN) (1994)		time	6.52	10.80	15.08		23.96	26.0	28.56	33.44		43.84			55.57	8 / 7		
reaction time	0.184	interval		4.28	4.28		8.88		4.60	4.88		10.40						
		velocity	6.90	8.18	8.18		7.88	7.69	7.61	7.17		6.73			7.20			
H1 lead leg	R	strides	22	15	15				15	16					83			

2018 Müller Grand Prix (Birmingham, GBR) (TV Analysis)

FINAL date 18-Aug-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sprunger, Leá (SUI) (1990)		time	6.44	10.77	15.25	19.78	24.35		29.13	34.06	39.00	44.04	49.18		54.86	4 / 1			
reaction time	0.116	interval		4.33	4.48	4.53	4.57		4.78	4.93	4.94	5.04	5.14	5.68			13.34	14.28	15.12
		velocity	6.99	8.08	7.81	7.73	7.66		7.32	7.10	7.09	6.94	6.81	7.04	7.29		7.87	7.35	6.94
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15	18.2	170.2				
Russell, Janieve (JAM) (1993		time	6.60	10.98	15.55	20.18	24.79		29.66	34.47	39.39	44.24	49.21		54.91	6 / 2			
reaction time	0.149	interval		4.38	4.57	4.63	4.61		4.87	4.81	4.92	4.85	4.97	5.70			13.58	14.29	14.74
		velocity	6.82	7.99	7.66	7.56	7.59		7.19	7.28	7.11	7.22	7.04	7.02	7.28		7.73	7.35	7.12
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.2	179.2				
Beesley, Meghan (GBR) (198		time	6.37	10.64	15.11	19.65	24.22		29.13	34.06	39.17	44.41	49.68		55.83	7 / 3			
reaction time	0.168	interval		4.27	4.47	4.54	4.57		4.91	4.93	5.11	5.24	5.27	6.15			13.28	14.41	15.62
		velocity	7.06	8.20	7.83	7.71	7.66		7.13	7.10	6.85	6.68	6.64	6.50	7.16		7.91	7.29	6.72
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	18	18	22	197				
Doyle, Eilidh (GBR) (1987)		time	6.47	10.74	15.21	19.85	24.69		29.59	34.63	39.74	45.01	50.38		56.61	3 / 4			
reaction time	0.159	interval		4.27	4.47	4.64	4.84		4.90	5.04	5.11	5.27	5.37	6.23			13.38	14.78	15.75
		velocity	6.96	8.20	7.83	7.54	7.23		7.14	6.94	6.85	6.64	6.52	6.42	7.07		7.85	7.10	6.67
H1 lead leg	L	strides	23	15	15	16	16		16	17	17	18	18	21	192				
Watson, Sage (CAN) (1994)		time	6.50	10.84	15.41	19.99	24.79		29.76	34.83	40.07	45.44			57.11	8 / 5			
reaction time	0.174	interval		4.34	4.57	4.58	4.80		4.97	5.07	5.24	5.37					13.49	14.84	
		velocity	6.92	8.06	7.66	7.64	7.29		7.04	6.90	6.68	6.52			7.00		7.78	7.08	
H1 lead leg	R	strides	21	15	16	16			16	16	17	17			134				
Nel, Wenda (RSA) (1988)		time	6.40	10.71	15.18	19.82	24.62		29.43	34.43	39.57	45.08	50.85		57.51	2 / 6			
reaction time	0.183	interval		4.31	4.47	4.64	4.80		4.81	5.00	5.14	5.51	5.77	6.66			13.42	14.61	16.42
		velocity	7.03	8.12	7.83	7.54	7.29		7.28	7.00	6.81	6.35	6.07	6.01	6.96		7.82	7.19	6.39
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	18	18	22	195				

2018 Japanese National High School Championships (Nagoya, JPN)

FINAL date 04-Aug-18

Kota (2018) - 71st high school championships: JAF scientific committee - biomechanics data collection

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Oike, Saori (JPN)	time	7.04	11.71	16.45	21.32	26.31		31.38	36.45	41.63	46.95	52.65		59.00	5 / 1			
reaction time	interval		4.67	4.74	4.87	4.99		5.07	5.07	5.18	5.32	5.70	6.35	PB		14.28	15.13	16.20
	velocity	6.39	7.49	7.38	7.19	7.01		6.90	6.90	6.76	6.58	6.14	6.30	6.78		7.35	6.94	6.48
H1 lead leg	strides		17	17	17	17		17	17	17	17	19		155				
Aoki, Honoka (JPN) (2001)	time	7.01	11.64	16.43	21.32	26.33		31.48	36.70	41.99	47.40	52.95		59.08	6 / 2			
reaction time	interval		4.63	4.79	4.89	5.01		5.15	5.22	5.29	5.41	5.55	6.13	PB		14.31	15.38	16.25
	velocity	6.42	7.56	7.31	7.16	6.99		6.80	6.70	6.62	6.47	6.31	6.53	6.77		7.34	6.83	6.46
H1 lead leg	strides		17	17	17	17		17	17	18	18	18		156				
Shimizu, Hana (JPN) (2001)	time	6.77	11.38	16.12	20.97	26.08		31.21	36.42	41.74	47.43	53.14		59.61	4 / 3			
reaction time	interval		4.61	4.74	4.85	5.11		5.13	5.21	5.32	5.69	5.71	6.47	PB		14.20	15.45	16.72
	velocity	6.65	7.59	7.38	7.22	6.85		6.82	6.72	6.58	6.15	6.13	6.18	6.71		7.39	6.80	6.28
H1 lead leg	strides		17	17	17	17		17	17	17	19	19		157				
Ban, Nozomi (JPN) (2001)	time	6.97	11.64	16.38	21.34	26.43		31.61	36.90	42.31	47.83	53.50		59.96	8 / 4			
reaction time	interval		4.67	4.74	4.96	5.09		5.18	5.29	5.41	5.52	5.67	6.46			14.37	15.56	16.60
	velocity	6.46	7.49	7.38	7.06	6.88		6.76	6.62	6.47	6.34	6.17	6.19	6.67		7.31	6.75	6.33
H1 lead leg	strides		16	16	17	17		17	17	17	17	17		151				
Okawa, Nazuna (JPN) (2001)	time	7.26	12.08	17.00	21.94	26.94		32.10	37.27	42.51	47.95	53.79		60.12	2 / 5			
reaction time	interval		4.82	4.92	4.94	5.00		5.16	5.17	5.24	5.44	5.84	6.33			14.68	15.33	16.52
	velocity	6.20	7.26	7.11	7.09	7.00		6.78	6.77	6.68	6.43	5.99	6.32	6.65		7.15	6.85	6.36
H1 lead leg	strides		17	17	17	17		17	17	17	17	19		155				
Saihara, Mai (JPN)	time	6.86	11.49	16.25	21.26	26.43		31.82	37.47	43.14	48.98	54.67		60.86	9 / 6			
reaction time	interval		4.63	4.76	5.01	5.17		5.39	5.65	5.67	5.84	5.69	6.19			14.40	16.21	17.20
	velocity	6.56	7.56	7.35	6.99	6.77		6.49	6.19	6.17	5.99	6.15	6.46	6.57		7.29	6.48	6.10
H1 lead leg	strides		17	17	17	17		17	18	18	19	19		159				
Tsugawa, Rui (JPN) (2001)	time	6.97	11.63	16.53	21.57	26.74		32.05	37.35	42.99	48.87	54.77		60.89	7 / 7			
reaction time	interval		4.66	4.90	5.04	5.17		5.31	5.30	5.64	5.88	5.90	6.12			14.60	15.78	17.42
	velocity	6.46	7.51	7.14	6.94	6.77		6.59	6.60	6.21	5.95	5.93	6.54	6.57		7.19	6.65	6.03
H1 lead leg	strides		17	17	17	17		17	17	19	19	19		159				
Kawamura, Yuka (JPN) (2001	time	6.77	11.39	16.37	21.34	26.46		31.66	37.07	42.83	49.00	54.79		61.38	3 / 8			

reaction time		interval		4.62	4.98	4.97	5.12	5.20	5.41	5.76	6.17	5.79	6.59			14.57	15.73	17.72
		velocity	6.65	7.58	7.03	7.04	6.84	6.73	6.47	6.08	5.67	6.04	6.07	6.52		7.21	6.68	5.93
H1 lead leg		strides		17	17	17	17	17	17	19	19	19		159				

2018 Müller Anniversary Games (London, GBR) (TV Analysis)

FINAL date 21-Jul-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.32	10.60	14.92	19.32	23.92		28.52	33.36	38.24	43.24	48.24		53.95	5 / 1			
reaction time	0.143	interval		4.28	4.32	4.40	4.60		4.60	4.84	4.88	5.00	5.00	5.71			13.00	14.04	14.88
		velocity	7.12	8.18	8.10	7.95	7.61		7.61	7.23	7.17	7.00	7.00	7.01	7.41		8.08	7.48	7.06
H1 lead leg	L	strides	23	15	14	15	15		15	16	16	16	16	19.5	180.5				
Russell, Janieve (JAM) (1993		time	6.44	10.68	15.08	19.60	24.08		28.68	33.44	38.28	43.16	48.20		53.96	6 / 2			
reaction time	0.206	interval		4.24	4.40	4.52	4.48		4.60	4.76	4.84	4.88	5.04	5.76			13.16	13.84	14.76
		velocity	6.99	8.25	7.95	7.74	7.81		7.61	7.35	7.23	7.17	6.94	6.94	7.41		7.98	7.59	7.11
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.5	179.5				
Muhammad, Dalilah (USA) (		time	6.12	10.32	14.68	19.20	23.84		28.56	33.32	38.32	43.44	48.56		54.86	4 / 3			
reaction time		interval		4.20	4.36	4.52	4.64		4.72	4.76	5.00	5.12	5.12	6.30			13.08	14.12	15.24
		velocity	7.35	8.33	8.03	7.74	7.54		7.42	7.35	7.00	6.84	6.84	6.35	7.29		8.03	7.44	6.89
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	19.7	180.7				
Moline, Georganne (USA) (1		time	6.44	10.80	15.16	19.56	24.04		28.64	33.40	38.48	43.88	49.32		55.47	7 / 4			
reaction time	0.211	interval		4.36	4.36	4.40	4.48		4.60	4.76	5.08	5.40	5.44	6.15			13.12	13.84	15.92
		velocity	6.99	8.03	8.03	7.95	7.81		7.61	7.35	6.89	6.48	6.43	6.50	7.21		8.00	7.59	6.60
H1 lead leg	L	strides	23	16	15	15	15		15	15	16	17	17	20	184				
Nel, Wenda (RSA) (1988)		time	6.40	10.72	15.16	19.68	24.32		29.04	33.92	38.96	44.04	49.32		55.67	1 / 5			
reaction time	0.179	interval		4.32	4.44	4.52	4.64		4.72	4.88	5.04	5.08	5.28	6.35			13.28	14.24	15.40
		velocity	7.03	8.10	7.88	7.74	7.54		7.42	7.17	6.94	6.89	6.63	6.30	7.19		7.91	7.37	6.82
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17	21.7	192.7				
Tracey, Ristananna (JAM) (1		time	6.44	10.68	14.96	19.36	24.00		28.84	33.88	39.12	44.48	49.80		56.07	9 / 6			
reaction time	0.204	interval		4.24	4.28	4.40	4.64		4.84	5.04	5.24	5.36	5.32	6.27			12.92	14.52	15.92
		velocity	6.99	8.25	8.18	7.95	7.54		7.23	6.94	6.68	6.53	6.58	6.38	7.13		8.13	7.23	6.60
H1 lead leg	L	strides	23	15	15	15	16		16	16	17	17	17	20.5	187.5				
Doyle, Eilidh (GBR) (1987)		time	6.40	10.68	15.16	19.52	24.00		28.72	33.64	38.76	44.32	49.68		56.18	8 / 7			
reaction time	0.149	interval		4.28	4.48	4.36	4.48		4.72	4.92	5.12	5.56	5.36	6.50			13.12	14.12	16.04
		velocity	7.03	8.18	7.81	8.03	7.81		7.42	7.11	6.84	6.29	6.53	6.15	7.12		8.00	7.44	6.55
H1 lead leg	L	strides	23	16	16	15	15		16	17	17	18	18	22	193				
Watson, Sage (CAN) (1994)		time	6.44	10.72	15.04	19.44	24.00		28.80	33.82	38.88	44.20	49.80		56.21	2 / 8			
reaction time	0.174	interval		4.28	4.32	4.40	4.56		4.80	5.02	5.06	5.32	5.60	6.41			13.00	14.38	15.98
		velocity	6.99	8.18	8.10	7.95	7.68		7.29	6.97	6.92	6.58	6.25	6.24	7.12		8.08	7.30	6.57
H1 lead leg	R	strides	22	15	15	15	15		16	16	16	17	17	20	184				
Spencer, Ashley (USA) (1993		time	6.60	10.88	15.24	19.76	24.40		29.20	34.04	39.20	44.64	50.24		57.00	3 / 9			
reaction time	0.164	interval		4.28	4.36	4.52	4.64		4.80	4.84	5.16	5.44	5.60	6.76			13.16	14.28	16.20
		velocity	6.82	8.18	8.03	7.74	7.54		7.29	7.23	6.78	6.43	6.25	5.92	7.02		7.98	7.35	6.48
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16	19.5	179.5				

2018 IAAF World Junior Championships (Tampere, FIN) (TV Analysis)

FINAL date 13-Jul-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Van Der Walt, Zeney (RSA) (		time	6.50	10.66	15.03	19.40	23.96		28.66	33.53	38.66	43.80	49.16		55.34	5 / 1			
reaction time	0.206	interval		4.16	4.37	4.37	4.56		4.70	4.87	5.13	5.14	5.36	6.18			12.90	14.13	15.63
		velocity	6.92	8.41	8.01	8.01	7.68		7.45	7.19	6.82	6.81	6.53	6.47	7.23		8.14	7.43	6.72
H1 lead leg	L	strides	23	15	15	15	15		15	16	17	17	17	20.5	185.5				
Salmon, Shiann (JAM) (1999		time	6.13	10.33	14.73	19.30	23.90		28.70	33.70	38.70	43.86	49.36		56.11	4 / 2			
reaction time	0.167	interval		4.20	4.40	4.57	4.60		4.80	5.00	5.00	5.16	5.50	6.75			13.17	14.40	15.66
		velocity	7.34	8.33	7.95	7.66	7.61		7.29	7.00	7.00	6.78	6.36	5.93	7.13		7.97	7.29	6.70
H1 lead leg	R	strides	22	15	15	15	15		15	16	16	16	17	21	183				
Giger, Yasmin (SUI) (1999)		time	6.40	10.70	15.06	19.66	24.36		29.20	34.16	39.30	44.66	50.40		56.98	8 / 3			
reaction time	0.179	interval		4.30	4.36	4.60	4.70		4.84	4.96	5.14	5.36	5.74	6.58			13.26	14.50	16.24
		velocity	7.03	8.14	8.03	7.61	7.45		7.23	7.06	6.81	6.53	6.10	6.08	7.02		7.92	7.24	6.47
H1 lead leg	R	strides	23	15	15	15	15		15	16	16		17		147				
Gallego, Sara (ESP) (2000)		time	6.76	11.20	15.66	20.26	25.00		29.86	34.86	39.93	45.26	50.73		57.11	6 / 4			
reaction time	0.190	interval		4.44	4.46	4.60	4.74		4.86	5.00	5.07	5.33	5.47	6.38	NJR PB		13.50	14.60	15.87
		velocity	6.66	7.88	7.85	7.61	7.38		7.20	7.00	6.90	6.57	6.40	6.27	7.00		7.78	7.19	6.62
H1 lead leg	R	strides	24	17	17	17	17		17	17	17		18		161				

2018 Athletissima (Lausanne, SUI) (TV Analysis)

FINAL date 05-Jul-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.16	10.36	14.68	19.04	23.48		28.04	32.72	37.52	42.44	47.48		53.41	4 / 1			

reaction time	0.188	interval		4.20	4.32	4.36	4.44	4.56	4.68	4.80	4.92	5.04	5.93			12.88	13.68	14.76
		velocity	7.31	8.33	8.10	8.03	7.88	7.68	7.48	7.29	7.11	6.94	6.75	7.49		8.15	7.68	7.11
H1 lead leg	R	strides	23	15	15	15	15	15	15	16	16	16	20	181				
Russell, Janieve (JAM) (1993		time	6.32	10.52	14.84	19.20	23.68	28.16	32.80	37.48	42.44	47.48		53.46	5 / 2			
reaction time	0.147	interval		4.20	4.32	4.36	4.48	4.48	4.64	4.68	4.96	5.04	5.98	**PB**		12.88	13.60	14.68
		velocity	7.12	8.33	8.10	8.03	7.81	7.81	7.54	7.48	7.06	6.94	6.69	7.48		8.15	7.72	7.15
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	16	16	19.5	178.5				
Moline, Georganne (USA) (1		time	6.32	10.56		19.32	23.72	28.24	32.80	37.56	42.52	47.68		53.90	7 / 3			
reaction time	0.204	interval		4.24		8.76	4.40	4.52	4.56	4.76	4.96	5.16	6.22			13.00	13.48	14.88
		velocity	7.12	8.25		7.99	7.95	7.74	7.68	7.35	7.06	6.78	6.43	7.42		8.08	7.79	7.06
H1 lead leg	R	strides	22	15			15	15	15	15	16	16	20	149				
Muhammad, Dalilah (USA) (		time	6.16	10.20	14.48	18.80	23.20	27.88	32.80	37.84	42.96	48.28		54.61	3 / 4			
reaction time	0.182	interval		4.04	4.28	4.32	4.40	4.68	4.92	5.04	5.12	5.32	6.33			12.64	14.00	15.48
		velocity	7.31	8.66	8.18	8.10	7.95	7.48	7.11	6.94	6.84	6.58	6.32	7.32		8.31	7.50	6.78
H1 lead leg	R	strides	23	15	15	15	15	15	16	16	16	16	19.5	181.5				
Spencer, Ashley (USA) (1993		time	6.40	10.72		19.64	24.16	28.80	33.64	38.52	43.56	48.76		54.74	8 / 5			
reaction time	0.153	interval		4.32		8.92	4.52	4.64	4.84	4.88	5.04	5.20	5.98			13.24	14.00	15.12
		velocity	7.03	8.10		7.85	7.74	7.54	7.23	7.17	6.94	6.73	6.69	7.31		7.93	7.50	6.94
H1 lead leg	L	strides	22	15			15	15	15	15	15	15		127				
Sprunger, Leá (SUI) (1990)		time	6.40	10.72		19.48	24.00	28.72	33.60	38.56	43.60	48.80		54.79	6 / 6			
reaction time	0.126	interval		4.32		8.76	4.52	4.72	4.88	4.96	5.04	5.20	5.99			13.08	14.12	15.20
		velocity	7.03	8.10		7.99	7.74	7.42	7.17	7.06	6.94	6.73	6.68	7.30		8.03	7.44	6.91
H1 lead leg	R	strides	21	14			14	15	15	15	15	15	18.5	142.5				
Tate, Cassandra (USA) (1990		time	6.28	10.40		19.16	23.64	28.32	33.28	38.40	43.56	49.00		55.45	2 / 7			
reaction time	0.208	interval		4.12		8.76	4.48	4.68	4.96	5.12	5.16	5.44	6.45			12.88	14.12	15.72
		velocity	7.17	8.50		7.99	7.81	7.48	7.06	6.84	6.78	6.43	6.20	7.21		8.15	7.44	6.68
H1 lead leg	R	strides	22	15			15	15	16	16	16	16	20	151				

2018 USATF National Championships (Des Moines, IA) (TV Analysis)

FINAL date 24-Jun-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.30	10.51	14.78	19.15	23.55		28.09	32.66	37.40	42.31	47.54		53.61	5 / 1			
reaction time		interval		4.21	4.27	4.37	4.40		4.54	4.57	4.74	4.91	5.23	6.07			12.85	13.51	14.88
		velocity	7.14	8.31	8.20	8.01	7.95		7.71	7.66	7.38	7.13	6.69	6.59	7.46		8.17	7.77	7.06
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Moline, Georganne (USA) (1		time	6.40	10.51	14.71	19.05	23.49		27.99	32.56	37.27	42.24	47.58		54.12	4 / 2			
reaction time		interval		4.11	4.20	4.34	4.44		4.50	4.57	4.71	4.97	5.34	6.54			12.65	13.51	15.02
		velocity	7.03	8.52	8.33	8.06	7.88		7.78	7.66	7.43	7.04	6.55	6.12	7.39		8.30	7.77	6.99
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	17	20.5	180.5				
Tate, Cassandra (USA) (1990		time	6.24	10.34	14.54	18.88	23.32		27.86	32.63	37.70	43.01	48.58		55.00	3 / 3			
reaction time		interval		4.10	4.20	4.34	4.44		4.54	4.77	5.07	5.31	5.57	6.42			12.64	13.75	15.95
		velocity	7.21	8.54	8.33	8.06	7.88		7.71	7.34	6.90	6.59	6.28	6.23	7.27		8.31	7.64	6.58
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	17	20	180				
Payne, Kymber (USA) (1996)		time	6.47	10.67	14.91	19.32	23.75		28.46	33.30	38.27	43.44	48.91		55.54	6 / 4			
reaction time		interval		4.20	4.24	4.41	4.43		4.71	4.84	4.97	5.17	5.47	6.63			12.85	13.98	15.61
		velocity	6.96	8.33	8.25	7.94	7.90		7.43	7.23	7.04	6.77	6.40	6.03	7.20		8.17	7.51	6.73
H1 lead leg	L	strides	24	15	15	15	15		16	16	17	17	17	20	187				
Cockrell, Anna (USA) (1997)		time	6.17	10.17	14.34	18.68	23.29			33.06	38.30	43.74	49.45		56.14	8 / 5			
reaction time		interval		4.00	4.17	4.34	4.61			9.77	5.24	5.44	5.71	6.69			12.51	14.38	16.39
		velocity	7.29	8.75	8.39	8.06	7.59			7.16	6.68	6.43	6.13	5.98	7.13		8.39	7.30	6.41
H1 lead leg	L	strides	22	14	15	15	15				16	17	17		131				

2018 Japanese National Championships (Yamaguchi, JPN)

FINAL date 24-Jun-18

Morioka (2018) - race pattern analysis of Japan's top 400m hurdles - main national competitions in 2018

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Utsunomiya, Eri (JPN) (1993)		time	6.50	10.85	15.37	20.09	25.10		30.21	35.38	40.62	45.94	51.28		57.37	6 / 1			
reaction time	0.178	interval		4.35	4.52	4.72	5.01		5.11	5.17	5.24	5.32	5.34	6.09			13.59	15.29	15.90
		velocity	6.92	8.05	7.74	7.42	6.99		6.85	6.77	6.68	6.58	6.55	6.57	6.97		7.73	6.87	6.60
H1 lead leg	R		23	15	15	15	16		16	17	17	17	17	21	189				
Aoki, Sayaka (JPN) (1986)		time	6.54	10.99	15.61	20.26	25.11		30.08	35.12	40.26	45.55	51.09		57.64	5 / 2			
reaction time	0.175	interval		4.45	4.62	4.65	4.85		4.97	5.04	5.14	5.29	5.54	6.55			13.72	14.86	15.97
		velocity	6.88	7.87	7.58	7.53	7.22		7.04	6.94	6.81	6.62	6.32	6.11	6.94		7.65	7.07	6.57
H1 lead leg	L		24	16	16	16	16		17	17	17	17	17	21.5	194.5				
Koyama, Kana (JPN) (1991)		time	6.62	10.97	15.52	20.41	25.35		30.37	35.49	40.75	46.14	51.63		57.94	4 / 3			
reaction time	0.164	interval		4.35	4.55	4.89	4.94		5.02	5.12	5.26	5.39	5.49	6.31			13.79	15.08	16.14
		velocity	6.80	8.05	7.69	7.16	7.09		6.97	6.84	6.65	6.49	6.38	6.34	6.90		7.61	6.96	6.51
H1 lead leg	L		22	15	15	16	16		17	17	17	17	17	21	190				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

2018 NCAA Championships (Eugene, OR) (TV Analysis)

FINAL date 09-Jun-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.43	10.53	14.63	18.90	23.20		27.73	32.43	37.33	42.60	47.93		53.96	4 / 1			
reaction time		interval		4.10	4.10	4.27	4.30		4.53	4.70	4.90	5.27	5.33	6.03			12.47	13.53	15.50
		velocity	7.00	8.54	8.54	8.20	8.14		7.73	7.45	7.14	6.64	6.57	6.63	7.41		8.42	7.76	6.77
H1 lead leg	R	strides		14	14	14	14		15	15	15	16	16	19.2	152.2				
Cockrell, Anna (USA) (1997)		time	6.43	10.43		19.16	23.73		28.56	33.63	38.80	44.06	49.40		55.71	5 / 2			
reaction time		interval		4.00		8.73	4.57		4.83	5.07	5.17	5.26	5.34	6.31			12.73	14.47	15.77
		velocity	7.00	8.75		8.02	7.66		7.25	6.90	6.77	6.65	6.55	6.34	7.18		8.25	7.26	6.66
H1 lead leg	L	strides		14			15		16	16	16		16	20.5	113.5				
Payne, Kymber (USA) (1996)		time	6.73	10.93	15.20	19.53	23.96		28.73	33.70		44.33	50.03		56.88	6 / 3			
reaction time		interval		4.20	4.27	4.33	4.43		4.77	4.97		10.63	5.70	6.85			12.80	14.17	16.33
		velocity	6.69	8.33	8.20	8.08	7.90		7.34	7.04		6.59	6.14	5.84	7.03		8.20	7.41	6.43
H1 lead leg	L	strides	24	15		15	15		16	16	17		18		136				

2018 Bislett Games (Oslo, NOR) (TV Analysis)

FINAL date 07-Jun-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.04	10.08	14.44	18.96	23.56	25.5	28.08	32.72	37.64	42.48	47.64		53.65	5 / 1			
reaction time	0.166	interval		4.04	4.36	4.52	4.60		4.52	4.64	4.92	4.84	5.16	6.01			12.92	13.76	14.92
		velocity	7.45	8.66	8.03	7.74	7.61	7.84	7.74	7.54	7.11	7.23	6.78	6.66	7.46		8.13	7.63	7.04
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	19.7	180.7				
Little, Shamier (USA) (1995)		time	6.20	10.28	14.52	18.88	23.36	25.3	27.88	32.56	37.48	42.48	47.68		53.94	4 / 2			
reaction time	0.200	interval		4.08	4.24	4.36	4.48		4.52	4.68	4.92	5.00	5.20	6.26			12.68	13.68	15.12
		velocity	7.26	8.58	8.25	8.03	7.81	7.91	7.74	7.48	7.11	7.00	6.73	6.39	7.42		8.28	7.68	6.94
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	20	181				
Watson, Sage (CAN) (1994)		time	6.36	10.56	14.88		24.00	26.0	28.68	33.64	38.64	43.68	48.84		54.55	1 / 3			
reaction time	0.162	interval		4.20	4.32		9.12		4.68	4.96	5.00	5.04	5.16	5.71					15.20
		velocity	7.08	8.33	8.10		7.68	7.69	7.48	7.06	7.00	6.94	6.78	7.01	7.33				6.91
H1 lead leg	R	strides	22	15	15				15	16	16	16	16	19	150				
Sprunger, Leá (SUI) (1990)		time	6.36	10.64	15.00		24.16		28.88	33.76	38.80	43.96	49.24		55.07	3 / 4			
reaction time	0.138	interval		4.28	4.36		9.16		4.72	4.88	5.04	5.16	5.28	5.83					15.48
		velocity	7.08	8.18	8.03		7.64		7.42	7.17	6.94	6.78	6.63	6.86	7.26				6.78
H1 lead leg	R	strides	21	14	14				15	15	15	16	16	18.5	144.5				
Hejnová, Zuzana (CZE) (198		time	6.56	10.80	15.16	19.64	24.20	26.2	28.76	33.52	38.44	43.50	48.80		55.16	7 / 5			
reaction time	0.145	interval		4.24	4.36	4.48	4.56		4.56	4.76	4.92	5.06	5.30	6.36			13.08	13.88	15.28
		velocity	6.86	8.25	8.03	7.81	7.68	7.63	7.68	7.35	7.11	6.92	6.60	6.29	7.25		8.03	7.56	6.87
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20.2	180.2				
Iuel, Amalie (NOR) (1994)		time	6.44	10.60	15.04		24.20	26.3	28.92	33.88	38.96	44.04	49.20		55.26	8 / 6			
reaction time	0.140	interval		4.16	4.44		9.16		4.72	4.96	5.08	5.08	5.16	6.06	**NR PB**				15.32
		velocity	6.99	8.41	7.88		7.64	7.60	7.42	7.06	6.89	6.89	6.78	6.60	7.24				6.85
H1 lead leg	L	strides	23	15	15				15	15	16	16	16		131				
Pedroso, Yadisleidis (ITA) (1		time	6.40	10.64	15.00	19.56	24.24	26.3	28.96	33.96	38.92	44.04	49.24		55.47	6 / 7			
reaction time	0.226	interval		4.24	4.36	4.56	4.68		4.72	5.00	4.96	5.12	5.20	6.23			13.16	14.40	15.28
		velocity	7.03	8.25	8.03	7.68	7.48	7.60	7.42	7.00	7.06	6.84	6.73	6.42	7.21		7.98	7.29	6.87
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17		171				
Kloster, Line (NOR) (1990)		time	6.56	10.84	15.28		24.84	26.9	29.68	34.64	39.76	44.96	50.24		56.48	2 / 8			
reaction time	0.190	interval		4.28	4.44		9.56		4.84	4.96	5.12	5.20	5.28	6.24					15.60
		velocity	6.86	8.18	7.88		7.32	7.43	7.23	7.06	6.84	6.73	6.63	6.41	7.08				6.73
H1 lead leg	R	strides	23	15	15				16	16		17	17		119				

2018 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

FINAL date 31-May-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Moline, Georganne (USA) (1		time	6.32	10.44	14.72	19.12	23.56		28.08	32.72	37.64	42.80	48.08		53.97	7 / 1			
reaction time	0.213	interval		4.12	4.28	4.40	4.44		4.52	4.64	4.92	5.16	5.28	5.89			12.80	13.60	15.36
		velocity	7.12	8.50	8.18	7.95	7.88		7.74	7.54	7.11	6.78	6.63	6.79	7.41		8.20	7.72	6.84
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	17	17	20	182				
Russell, Janieve (JAM) (1993		time	6.44	10.64	14.96	19.48	24.16		28.88	33.72	38.52	43.48	48.40		54.08	5 / 2			
reaction time	0.165	interval		4.20	4.32	4.52	4.68		4.72	4.84	4.80	4.96	4.92	5.68			13.04	14.24	14.68
		velocity	6.99	8.33	8.10	7.74	7.48		7.42	7.23	7.29	7.06	7.11	7.04	7.40		8.05	7.37	7.15
H1 lead leg	R	strides	22	15	15	15	15		15	16	16	16	16	19.2	180.2				
Muhammad, Dalilah (USA) (		time	6.20	10.32	14.68	19.20	23.92		28.64	33.40	38.32	43.36	48.52		54.65	4 / 3			
reaction time	0.172	interval		4.12	4.36	4.52	4.72		4.72	4.76	4.92	5.04	5.16	6.13			13.00	14.20	15.12
		velocity	7.26	8.50	8.03	7.74	7.42		7.42	7.35	7.11	6.94	6.78	6.53	7.32		8.08	7.39	6.94
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.2	179.2				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Folorunso, Ayomide (ITA) (1		time	6.48	10.76	15.12	19.56	24.08	28.76	33.68	38.64	43.80	49.08		55.16	2 / 4			
reaction time	0.182	interval		4.28	4.36	4.44	4.52	4.68	4.92	4.96	5.16	5.28	6.08	PB		13.08	14.12	15.40
		velocity	6.94	8.18	8.03	7.88	7.74	7.48	7.11	7.06	6.78	6.63	6.58	7.25		8.03	7.44	6.82
H1 lead leg	R	strides	23	16	16	16	16	16	16	17	17	17	20.7	190.7				
Pedroso, Yadisleidis (ITA) (1		time	6.48	10.80	15.20	19.76	24.44	29.16	34.04	39.00	44.08	49.28		55.43	8 / 5			
reaction time	0.226	interval		4.32	4.40	4.56	4.68	4.72	4.88	4.96	5.08	5.20	6.15			13.28	14.28	15.24
		velocity	6.94	8.10	7.95	7.68	7.48	7.42	7.17	7.06	6.89	6.73	6.50	7.22		7.91	7.35	6.89
H1 lead leg	L	strides	23	16	16	16	16	16	17	17	17	17	20.7	191.7				
Tkachuk, Viktoriya (UKR) (19		time	6.52	10.76	15.12	19.64	24.24	29.00	33.96	39.08	44.32	49.64		55.69	9 / 6			
reaction time	0.251	interval		4.24	4.36	4.52	4.60	4.76	4.96	5.12	5.24	5.32	6.05			13.12	14.32	15.68
		velocity	6.90	8.25	8.03	7.74	7.61	7.35	7.06	6.84	6.68	6.58	6.61	7.18		8.00	7.33	6.70
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	17	17	20	183				
Tate, Cassandra (USA) (1990		time	6.24	10.44	14.76	19.28	24.00	28.80	33.80	38.92	44.28	49.76		56.09	3 / 7			
reaction time	0.228	interval		4.20	4.32	4.52	4.72	4.80	5.00	5.12	5.36	5.48	6.33			13.04	14.52	15.96
		velocity	7.21	8.33	8.10	7.74	7.42	7.29	7.00	6.84	6.53	6.39	6.32	7.13		8.05	7.23	6.58
H1 lead leg	R	strides	22	15	15	15	15	15	15	16	16	16	20	180				
Sprunger, Leá (SUI) (1990)		time	6.40	10.68	15.00	19.44	24.08	28.80	33.72	39.04	44.48	50.08		56.36	6 / 8			
reaction time	0.147	interval		4.28	4.32	4.44	4.64	4.72	4.92	5.32	5.44	5.60	6.28			13.04	14.28	16.36
		velocity	7.03	8.18	8.10	7.88	7.54	7.42	7.11	6.58	6.43	6.25	6.37	7.10		8.05	7.35	6.42
H1 lead leg	R	strides	21	14	14	14	14	15	15	17	17	17	19	177				
Adekoya, Kemi (BRN) (1993)		time	6.40	10.56	14.80	19.12	23.72	28.84	34.16	39.60	45.12	50.68		56.83	1 / 9			
reaction time	0.186	interval		4.16	4.24	4.32	4.60	5.12	5.32	5.44	5.52	5.56	6.15			12.72	15.04	16.52
		velocity	7.03	8.41	8.25	8.10	7.61	6.84	6.58	6.43	6.34	6.29	6.50	7.04		8.25	6.98	6.36
H1 lead leg	R	strides	23	15	15	15	16	17	17	17	17	17		169				

2018 Prefontaine Classic (Eugene, OR) (TV Analysis)

FINAL date 26-May-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Janieve (JAM) (1993		time	6.72	10.96	15.24	19.68	24.16			33.40	38.28	43.24	48.28		54.06	5 / 1			
reaction time	0.200	interval		4.24	4.28	4.44	4.48			9.24	4.88	4.96	5.04	5.78			12.96	13.72	14.88
		velocity	6.70	8.25	8.18	7.88	7.81			7.58	7.17	7.06	6.94	6.92	7.40		8.10	7.65	7.06
H1 lead leg	L	strides	23	14	15	15	15				16	16	16	20	150				
Muhammad, Dalilah (USA) (		time	6.28	10.32	14.56	18.92	23.40			32.64	37.60	42.64	47.96		54.09	4 / 2			
reaction time	0.222	interval		4.04	4.24	4.36	4.48			9.24	4.96	5.04	5.32	6.13			12.64	13.72	15.32
		velocity	7.17	8.66	8.25	8.03	7.81			7.58	7.06	6.94	6.58	6.53	7.40		8.31	7.65	6.85
H1 lead leg	R	strides	23	15	15	15	15				16	16	17	20.2	152.2				
Moline, Georganne (USA) (1		time	6.72	11.00	15.16	19.36	23.68		28.08	32.64	37.52	42.60	48.04		54.33	1 / 3			
reaction time	0.219	interval		4.28	4.16	4.20	4.32		4.40	4.56	4.88	5.08	5.44	6.29			12.64	13.28	15.40
		velocity	6.70	8.18	8.41	8.33	8.10		7.95	7.68	7.17	6.89	6.43	6.36	7.36		8.31	7.91	6.82
H1 lead leg	L	strides	23	16		15	15		15	15	16	16	17	20	168				
Watson, Sage (CAN) (1994)		time	6.56	10.72	14.96	19.36	23.92			33.52	38.52	43.68	49.00		54.81	7 / 4			
reaction time	0.199	interval		4.16	4.24	4.40	4.56			9.60	5.00	5.16	5.32	5.81			12.80	14.16	15.48
		velocity	6.86	8.41	8.25	7.95	7.68			7.29	7.00	6.78	6.58	6.88	7.30		8.20	7.42	6.78
H1 lead leg	R	strides	22	15	15	15	15				16	16	17	19.2	150.2				
Little, Shamier (USA) (1995)		time	6.44	10.52	14.64	18.88	23.28		27.88	32.68	37.72	43.12	48.72		55.23	2 / 5			
reaction time	0.249	interval		4.08	4.12	4.24	4.40		4.60	4.80	5.04	5.40	5.60	6.51			12.44	13.80	16.04
		velocity	6.99	8.58	8.50	8.25	7.95		7.61	7.29	6.94	6.48	6.25	6.14	7.24		8.44	7.61	6.55
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	20	184				
Hejnová, Zuzana (CZE) (198		time	6.80	11.08	15.40	19.80	24.32			33.76	38.68	43.80	49.08		55.36	6 / 6			
reaction time	0.190	interval		4.28	4.32	4.40	4.52			9.44	4.92	5.12	5.28	6.28			13.00	13.96	15.32
		velocity	6.62	8.18	8.10	7.95	7.74			7.42	7.11	6.84	6.63	6.37	7.23		8.08	7.52	6.85
H1 lead leg	R	strides	22	15	15	15	15				16	16	16	20	150				
Spencer, Ashley (USA) (1993		time	6.56	10.84	15.12	19.56	24.16		28.80	33.56	38.56	43.96	49.36		55.58	3 / 7			
reaction time	0.183	interval		4.28	4.28	4.44	4.60		4.64	4.76	5.00	5.40	5.40	6.22			13.00	14.00	15.80
		velocity	6.86	8.18	8.18	7.88	7.61		7.54	7.35	7.00	6.48	6.48	6.43	7.20		8.08	7.50	6.65
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Tate, Cassandra (USA) (1990		time	6.52	10.76	15.08	19.64	24.16			33.88	39.00	44.28			55.97	8 / 8			
reaction time	0.256	interval		4.24	4.32	4.56	4.52			9.72	5.12	5.28					13.12	14.24	
		velocity	6.90	8.25	8.10	7.68	7.74			7.20	6.84	6.63			7.15		8.00	7.37	
H1 lead leg	R	strides	22	15	15	15	15				16	16			114				

2018 Shimane High School Championships (Honshu, JPN)

FINAL date 26-May-18

Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
拝上 日和		time	7.45	12.52	17.83	23.27	28.92		34.75	40.52	46.85	52.87	58.95		65.96	5 / 1			
reaction time		interval		5.07	5.31	5.44	5.65		5.83	5.77	6.33	6.02	6.08	7.01			15.82	17.25	18.43

		velocity	6.04	6.90	6.59	6.43	6.19	6.00	6.07	5.53	5.81	5.76	5.71	6.06		6.64	6.09	5.70
	H1 lead leg	strides	24	17	18	18	19	20	20	21	21	21	25	224				
髙原 七恵		time	7.55	12.73	18.15	23.63	29.17	34.90	40.58	46.77	53.05	59.52		66.62	4 / 2			
	reaction time	interval		5.18	5.42	5.48	5.54	5.73	5.68	6.19	6.28	6.47	7.10			16.08	16.95	18.94
		velocity	5.96	6.76	6.46	6.39	6.32	6.11	6.16	5.65	5.57	5.41	5.63	6.00		6.53	6.19	5.54
	H1 lead leg	strides	25	17	19	19	19	19	19	21	21	21	24	224				
拝上 芽生		time	7.63	13.07	18.68	24.45	30.40	36.53	42.67	48.80	54.78	60.63		67.05	6 / 3			
	reaction time	interval		5.44	5.61	5.77	5.95	6.13	6.14	6.13	5.98	5.85	6.42			16.82	18.22	17.96
		velocity	5.90	6.43	6.24	6.07	5.88	5.71	5.70	5.71	5.85	5.98	6.23	5.97		6.24	5.76	5.85
	H1 lead leg	strides	26	19	19	19	19	19	19	19	19	19	23	220				
大國 那月		time	7.53	12.70	18.12	23.67	29.33	35.33	41.43	47.55	54.27	60.57		67.06	3 / 4			
	reaction time	interval		5.17	5.42	5.55	5.66	6.00	6.10	6.12	6.72	6.30	6.49			16.14	17.76	19.14
		velocity	5.98	6.77	6.46	6.31	6.18	5.83	5.74	5.72	5.21	5.56	6.16	5.96		6.51	5.91	5.49
	H1 lead leg	strides	25	17	18	18	18	19	19	19	21	20	24	218				

2018 South Eastern Conference Championships (Knoxville, TN) (TV Analysis)

FINAL date 13-May-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.23	10.40	14.66	18.93	23.33		27.83	32.43	37.13	42.16	47.20		52.75	5 / 1			
	reaction time	interval		4.17	4.26	4.27	4.40		4.50	4.60	4.70	5.03	5.04	5.55	**WJR PB**		12.70	13.50	14.77
		velocity	7.22	8.39	8.22	8.20	7.95		7.78	7.61	7.45	6.96	6.94	7.21	7.58		8.27	7.78	7.11
	H1 lead leg R	strides		15	15	15	15		15	15	15	16	16	18.5	155.5				

2018 Shanghai Diamond League (Shanghai, CHN) (TV Analysis)

FINAL date 12-May-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.12	10.16	14.48	18.88	23.52		28.08	32.76	37.56	42.72	47.84		53.77	4 / 1			
	reaction time 0.186	interval		4.04	4.32	4.40	4.64		4.56	4.68	4.80	5.16	5.12	5.93			12.76	13.88	15.08
		velocity	7.35	8.66	8.10	7.95	7.54		7.68	7.48	7.29	6.78	6.84	6.75	7.44		8.23	7.56	6.96
	H1 lead leg R	strides	23	15	15	15	15		15	15	15	16	16	19.5	179.5				
Russell, Janieve (JAM) (1993		time	6.40	10.48	14.76	19.12	23.56		28.16	32.96	37.92	42.88	47.96		53.78	3 / 2			
	reaction time 0.170	interval		4.08	4.28	4.36	4.44		4.60	4.80	4.96	4.96	5.08	5.82	**PB**		12.72	13.84	15.00
		velocity	7.03	8.58	8.18	8.03	7.88		7.61	7.29	7.06	7.06	6.89	6.87	7.44		8.25	7.59	7.00
	H1 lead leg R	strides	22	15	15	15	15		15	15	16	16	16	19.5	179.5				
Watson, Sage (CAN) (1994)		time	6.44	10.68	15.00	19.44	23.96		28.64	33.44	38.44	43.72	49.12		55.23	7 / 3			
	reaction time 0.180	interval		4.24	4.32	4.44	4.52		4.68	4.80	5.00	5.28	5.40	6.11			13.00	14.00	15.68
		velocity	6.99	8.25	8.10	7.88	7.74		7.48	7.29	7.00	6.63	6.48	6.55	7.24		8.08	7.50	6.70
	H1 lead leg R	strides	22	15	15	15	15		15	15	16	17	17		162				
Nel, Wenda (RSA) (1988)		time	6.44	10.84	15.44	20.08	24.88		29.64	34.52	39.44				55.63	8 / 4			
	reaction time 0.184	interval		4.40	4.60	4.64	4.80		4.76	4.88	4.92						13.64	14.44	
		velocity	6.99	7.95	7.61	7.54	7.29		7.35	7.17	7.11				7.19		7.70	7.27	
	H1 lead leg L	strides	23	16	16	16	16		16	17	17				137				
Linkiewicz, Joanna (POL) (19		time	6.60	10.92	15.32	19.84	24.44		29.24	34.12	39.08	44.24	49.60		55.84	2 / 5			
	reaction time 0.138	interval		4.32	4.40	4.52	4.60		4.80	4.88	4.96	5.16	5.36	6.24			13.24	14.28	15.48
		velocity	6.82	8.10	7.95	7.74	7.61		7.29	7.17	7.06	6.78	6.53	6.41	7.16		7.93	7.35	6.78
	H1 lead leg L	strides	25	16	16	16	16		17	17	17	17	18		175				

2018 National Relay Championships (Fayetteville, AR) (TV Analysis)

A FINAL date 27-Apr-18

Henson (2020) - Athlete First: 2018 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McLaughlin, Sydney (USA) (		time	6.31	10.30		19.08	23.53		28.06	32.80	37.66	42.81	47.95		53.60	5 / 1			
	reaction time	interval		3.99		8.78	4.45		4.53	4.74	4.86	5.15	5.14	5.65	**WJR PB**		12.77	13.72	15.15
		velocity	7.13	8.77		7.97	7.87		7.73	7.38	7.20	6.80	6.81	7.08	7.46		8.22	7.65	6.93
	H1 lead leg R	strides	22	15			15		15	15	15	16	16	18.5	147.5				

2017 Memorial van Damme (Brussels, BEL) (TV Analysis)

FINAL date 01-Sep-17

Henson (2020) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.00	10.04	14.36	18.76	23.16	25.3	27.68	32.44	37.44	42.52	47.76		53.89	6 / 1			
	reaction time 0.154	interval		4.04	4.32	4.40	4.40		4.52	4.76	5.00	5.08	5.24	6.13			12.76	13.68	15.32
		velocity	7.50	8.66	8.10	7.95	7.95	7.91	7.74	7.35	7.00	6.89	6.68	6.53	7.42		8.23	7.68	6.85
	H1 lead leg R	strides	23	15	15	15	15		15	15	16	16	16	20	181				
Hejnová, Zuzana (CZE) (198		time	6.40	10.64	14.88	19.20	23.64	25.7	28.16	32.84	37.72	42.76	47.88		53.93	7 / 2			
	reaction time 0.156	interval		4.24	4.24	4.32	4.44		4.52	4.68	4.88	5.04	5.12	6.05			12.80	13.64	15.04
		velocity	7.03	8.25	8.25	8.10	7.88	7.78	7.74	7.48	7.17	6.94	6.84	6.61	7.42		8.20	7.70	6.98
	H1 lead leg R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Spencer, Ashley (USA) (1993		time	6.32	10.60	14.92	19.40	23.96	26.2	28.60	33.32	38.24	43.28	48.68		54.92	5 / 3			
	reaction time 0.167	interval		4.28	4.32	4.48	4.56		4.64	4.72	4.92	5.04	5.40	6.24			13.08	13.92	15.36
		velocity	7.12	8.18	8.10	7.81	7.68	7.63	7.54	7.42	7.11	6.94	6.48	6.41	7.28		8.03	7.54	6.84

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	16	18.7	176.7			
Doyle, Eilidh (GBR) (1987)		time	6.32	10.52	14.84	19.28	23.76	25.9	28.40	33.16	38.20	43.32	48.64		55.04	4 / 4		
reaction time	0.196	interval		4.20	4.32	4.44	4.48		4.64	4.76	5.04	5.12	5.32	6.40			12.96	13.88	15.48
		velocity	7.12	8.33	8.10	7.88	7.81	7.72	7.54	7.35	6.94	6.84	6.58	6.25	7.27		8.10	7.56	6.78
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	22	188			
Petersen, Sara Slott (DEN) (1		time	6.36	10.52	14.84	19.20	23.64	25.8	28.20	32.96	38.08	43.40	49.04		55.54	3 / 5		
reaction time	0.216	interval		4.16	4.32	4.36	4.44		4.56	4.76	5.12	5.32	5.64	6.50			12.84	13.76	16.08
		velocity	7.08	8.41	8.10	8.03	7.88	7.75	7.68	7.35	6.84	6.58	6.21	6.15	7.20		8.18	7.63	6.53
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	17	18	21	184			
Russell, Janieve (JAM) (1993		time	6.32	10.52	14.84	19.24	23.80	26.0	28.40	33.24	38.32	43.52	49.04		55.60	9 / 6		
reaction time	0.178	interval		4.20	4.32	4.40	4.56		4.60	4.84	5.08	5.20	5.52	6.56			12.92	14.00	15.80
		velocity	7.12	8.33	8.10	7.95	7.68	7.69	7.61	7.23	6.89	6.73	6.34	6.10	7.19		8.13	7.50	6.65
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20.2	181.2			
Sprunger, Leá (SUI) (1990)		time	6.40	10.76	15.16	19.60	24.20	26.4	28.92	33.84	38.92	44.24	49.80		55.98	8 / 7		
reaction time	0.165	interval		4.36	4.40	4.44	4.60		4.72	4.92	5.08	5.32	5.56	6.18			13.20	14.24	15.96
		velocity	7.03	8.03	7.95	7.88	7.61	7.58	7.42	7.11	6.89	6.58	6.29	6.47	7.15		7.95	7.37	6.58
H1 lead leg	R	strides	21	14	14	14	14		14	14	15	15	17		152			
Nel, Wenda (RSA) (1988)		time	6.32	10.52	14.88	19.40	24.00	26.1	28.64	33.52	38.68	44.08	49.72		56.30	2 / 8		
reaction time	0.219	interval		4.20	4.36	4.52	4.60		4.64	4.88	5.16	5.40	5.64	6.58			13.08	14.12	16.20
		velocity	7.12	8.33	8.03	7.74	7.61	7.66	7.54	7.17	6.78	6.48	6.21	6.08	7.10		8.03	7.44	6.48
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	18	18	22	195			

2017 Weltklasse (Zürich, SUI) (TV Analysis)

FINAL date 24-Aug-17

Henson (2020) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hejnová, Zuzana (CZE) (1986		time	6.56	10.84	15.16	19.56	24.04		28.64	33.32	38.20	43.16	48.20		54.13	5 / 1			
reaction time	0.158	interval		4.28	4.32	4.40	4.48		4.60	4.68	4.88	4.96	5.04	5.93			13.00	13.76	14.88
		velocity	6.86	8.18	8.10	7.95	7.81		7.61	7.48	7.17	7.06	6.94	6.75	7.39		8.08	7.63	7.06
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.7	179.7				
Petersen, Sara Slott (DEN) (1		time	6.36	10.52	14.80	19.16	23.60		28.16	32.88		42.92	48.20		54.35	7 / 2			
reaction time	0.146	interval		4.16	4.28	4.36	4.44		4.56	4.72		10.04	5.28	6.15			12.80	13.72	15.32
		velocity	7.08	8.41	8.18	8.03	7.88		7.68	7.42		6.97	6.63	6.50	7.36		8.20	7.65	6.85
H1 lead leg	R	strides	21	15	15		15		15	15			17	20.5	133.5				
Sprunger, Leá (SUI) (1990)		time	6.36	10.56	14.92	19.36	23.88		28.64	33.60	38.68	43.84	48.96		54.66	6 / 3			
reaction time	0.124	interval		4.20	4.36	4.44	4.52		4.76	4.96	5.08	5.16	5.12	5.70			13.00	14.24	15.36
		velocity	7.08	8.33	8.03	7.88	7.74		7.35	7.06	6.89	6.78	6.84	7.02	7.32		8.08	7.37	6.84
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15	18.2	170.2				
Fontanive, Petra (SUI) (1988)		time	6.32	10.60	15.04	19.56	24.24		28.96	33.84		43.88	48.96		54.66	4 / 4			
reaction time	0.157	interval		4.28	4.44	4.52	4.68		4.72	4.88		10.04	5.08	5.70			13.24	14.28	15.12
		velocity	7.12	8.18	7.88	7.74	7.48		7.42	7.17		6.97	6.89	7.02	7.32		7.93	7.35	6.94
H1 lead leg	L	strides	23	16	16		16		17	17			17	21	143				
Doyle, Eilidh (GBR) (1987)		time	6.36	10.52	14.80	19.16	23.68		28.40	33.28		43.40	48.80		55.09	3 / 5			
reaction time	0.163	interval		4.16	4.28	4.36	4.52		4.72	4.88		10.12	5.40	6.29			12.80	14.12	15.52
		velocity	7.08	8.41	8.18	8.03	7.74		7.42	7.17		6.92	6.48	6.36	7.26		8.20	7.44	6.77
H1 lead leg	L	strides	23	15	15		15		16	16			18	21.7	139.7				
Nel, Wenda (RSA) (1988)		time	6.48	10.80	15.28	19.84	24.52		29.20	34.12		44.24	49.60		55.86	2 / 6			
reaction time	0.198	interval		4.32	4.48	4.56	4.68		4.68	4.92		10.12	5.36	6.26			13.36	14.28	15.48
		velocity	6.94	8.10	7.81	7.68	7.48		7.48	7.11		6.92	6.53	6.39	7.16		7.86	7.35	6.78
H1 lead leg	L	strides	23	16	16		16		16	17			17	21.2	142.2				

2017 Müller Grand Prix (Birmingham, GBR) (TV Analysis)

FINAL date 20-Aug-17

Henson (2021) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hejnová, Zuzana (CZE) (1986		time	6.52	10.68	14.96	19.28	23.80		28.40	33.12	38.08	43.16	48.28		54.18	5 / 1			
reaction time	0.155	interval		4.16	4.28	4.32	4.52		4.60	4.72	4.96	5.08	5.12	5.90			12.76	13.84	15.16
		velocity	6.90	8.41	8.18	8.10	7.74		7.61	7.42	7.06	6.89	6.84	6.78	7.38		8.23	7.59	6.93
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Muhammad, Dalilah (USA) (		time	6.16	10.20	14.48	18.92	23.48		28.12	32.88	37.84	42.96	48.20		54.20	4 / 2			
reaction time	0.159	interval		4.04	4.28	4.44	4.56		4.64	4.76	4.96	5.12	5.24	6.00			12.76	13.96	15.32
		velocity	7.31	8.66	8.18	7.88	7.68		7.54	7.35	7.06	6.84	6.68	6.67	7.38		8.23	7.52	6.85
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	20	181				
Russell, Janieve (JAM) (1993		time	6.36	10.56	14.80	19.16	23.64		28.32	33.16	38.08	43.12	48.32		54.67	6 / 3			
reaction time	0.134	interval		4.20	4.24	4.36	4.48		4.68	4.84	4.92	5.04	5.20	6.35			12.80	14.00	15.16
		velocity	7.08	8.33	8.25	8.03	7.81		7.48	7.23	7.11	6.94	6.73	6.30	7.32		8.20	7.50	6.93
H1 lead leg	R	strides	22	15	15	15	15		15	16	16	16	16	20	181				
Doyle, Eilidh (GBR) (1987)		time	6.36	10.56	14.80	19.04	23.40		27.96	32.88	38.08	43.36	48.72		54.89	2 / 4			

reaction time	0.158	interval		4.20	4.24	4.24	4.36	4.56	4.92	5.20	5.28	5.36	6.17			12.68	13.84	15.84
		velocity	7.08	8.33	8.25	8.25	8.03	7.68	7.11	6.73	6.63	6.53	6.48	7.29		8.28	7.59	6.63
H1 lead leg	L	strides	23	15	15	15	15	16	17	17	18	18	22	191				
Petersen, Sara Slott (DEN) (1		time	6.64	10.92	15.20	19.60	24.04	28.64	33.44	38.40	43.64	48.96		55.28	7 / 5			
reaction time	0.154	interval		4.28	4.28	4.40	4.44	4.60	4.80	4.96	5.24	5.32	6.32			12.96	13.84	15.52
		velocity	6.78	8.18	8.18	7.95	7.88	7.61	7.29	7.06	6.68	6.58	6.33	7.24		8.10	7.59	6.77
H1 lead leg	R	strides	22	15	15	15	15	15	16	16	17	17	20.5	183.5				
Little, Shamier (USA) (1995)		time	6.48	10.64	14.88	19.20	23.76	28.56	33.56	38.80	44.32	50.24		57.42	3 / 6			
reaction time	0.220	interval		4.16	4.24	4.32	4.56	4.80	5.00	5.24	5.52	5.92	7.18			12.72	14.36	16.68
		velocity	6.94	8.41	8.25	8.10	7.68	7.29	7.00	6.68	6.34	5.91	5.57	6.97		8.25	7.31	6.29
H1 lead leg	R	strides	24	15	15	15	15	16	16	16	17	18		167				

2017 IAAF World Championships (London, GBR) (TV Analysis)

FINAL date 10-Aug-17

Henson (2020) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Carter, Kori (USA) (1992)		time	6.20	10.28	14.28	18.48	22.92		27.32	32.00	36.92	41.92	47.04		53.07	9 / 1			
reaction time	0.151	interval		4.08	4.00	4.20	4.44		4.40	4.68	4.92	5.00	5.12	6.03			12.28	13.52	15.04
		velocity	7.26	8.58	8.75	8.33	7.88		7.95	7.48	7.11	7.00	6.84	6.63	7.54		8.55	7.77	6.98
H1 lead leg	L	strides	24	15	15	15	16		16	16	17	17	17	20	188				
Muhammad, Dalilah (USA) (		time	5.88	9.84	14.04	18.32	22.68		27.16	31.84	36.88	41.88	47.16		53.50	4 / 2			
reaction time	0.152	interval		3.96	4.20	4.28	4.36		4.48	4.68	5.04	5.00	5.28	6.34			12.44	13.52	15.32
		velocity	7.65	8.84	8.33	8.18	8.03		7.81	7.48	6.94	7.00	6.63	6.31	7.48		8.44	7.77	6.85
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	20	181				
Tracey, Ristananna (JAM) (1		time	6.24	10.36	14.40	18.68	23.00		27.56	32.28	37.28	42.40	47.60		53.74	7 / 3			
reaction time	0.178	interval		4.12	4.04	4.28	4.32		4.56	4.72	5.00	5.12	5.20	6.14	**PB**		12.44	13.60	15.32
		velocity	7.21	8.50	8.66	8.18	8.10		7.68	7.42	7.00	6.84	6.73	6.51	7.44		8.44	7.72	6.85
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	20.2	186.2				
Hejnová, Zuzana (CZE) (198		time	6.36	10.52	14.68	18.92	23.28		27.76	32.36	37.20	42.24	47.64		54.20	6 / 4			
reaction time	0.151	interval		4.16	4.16	4.24	4.36		4.48	4.60	4.84	5.04	5.40	6.56			12.56	13.44	15.28
		velocity	7.08	8.41	8.41	8.25	8.03		7.81	7.61	7.23	6.94	6.48	6.10	7.38		8.36	7.81	6.87
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20.5	181.5				
Sprunger, Leá (SUI) (1990)		time	6.24	10.40	14.68	19.12	23.68		28.32	33.12	38.12	43.24	48.52		54.59	5 / 5			
reaction time	0.183	interval		4.16	4.28	4.44	4.56		4.64	4.80	5.00	5.12	5.28	6.07			12.88	14.00	15.40
		velocity	7.21	8.41	8.18	7.88	7.68		7.54	7.29	7.00	6.84	6.63	6.59	7.33		8.15	7.50	6.82
H1 lead leg	R	strides	21	14	14	15	15		15	15	15	15	15	18.7	172.7				
Watson, Sage (CAN) (1994)		time	6.20	10.32	14.48	18.76	23.16		27.72	32.40	37.52	42.80	48.44		54.92	8 / 6			
reaction time	0.172	interval		4.12	4.16	4.28	4.40		4.56	4.68	5.12	5.28	5.64	6.48			12.56	13.64	16.04
		velocity	7.26	8.50	8.41	8.18	7.95		7.68	7.48	6.84	6.63	6.21	6.17	7.28		8.36	7.70	6.55
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Tate, Cassandra (USA) (1990		time	6.24	10.36	14.68	19.00	23.48		28.08	32.88	37.88	43.32	48.88		55.43	3 / 7			
reaction time	0.216	interval		4.12	4.32	4.32	4.48		4.60	4.80	5.00	5.44	5.56	6.55			12.76	13.88	16.00
		velocity	7.21	8.50	8.10	8.10	7.81		7.61	7.29	7.00	6.43	6.29	6.11	7.22		8.23	7.56	6.56
H1 lead leg	R	strides	22		15	15	15		15	15	15	17	17	20	166				
Doyle, Eilidh (GBR) (1987)		time	6.32		14.80	19.16	23.68		28.32	33.24	38.40	43.68	49.16		55.71	2 / 8			
reaction time	0.157	interval			8.48	4.36	4.52		4.64	4.92	5.16	5.28	5.48	6.55			12.84	14.08	15.92
		velocity	7.12		8.25	8.03	7.74		7.54	7.11	6.78	6.63	6.39	6.11	7.18		8.18	7.46	6.60
H1 lead leg	L	strides	23			15	15		16	17	17	18	18	21.5	160.5				

2017 Japanese National High School Championships (Yamagata, JPN)

FINAL date 31-Jul-17

Kota (2017) - 70th high school championships: JAF scientific committee - biomechanics data collection

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Takagi, Rina (JPN) (1999)		time	6.82	11.18	15.73	20.55	25.49		30.71	36.09	41.46	46.98	52.70		59.20	6 / 1			
reaction time	0.213	interval		4.36	4.55	4.82	4.94		5.22	5.38	5.37	5.52	5.72	6.50			13.73	15.54	16.61
		velocity	6.60	8.03	7.69	7.26	7.09		6.70	6.51	6.52	6.34	6.12	6.15	6.76		7.65	6.76	6.32
H1 lead leg		strides		16	16	16	16		17	17	17	17	18		150				
Nishimura, Neneka (JPN) (19		time	6.81	11.26	15.83	20.59	25.43		30.48	35.74	41.22	46.93	52.67		59.33	4 / 2			
reaction time	0.218	interval		4.45	4.57	4.76	4.84		5.05	5.26	5.48	5.71	5.74	6.66			13.78	15.15	16.93
		velocity	6.61	7.87	7.66	7.35	7.23		6.93	6.65	6.39	6.13	6.10	6.01	6.74		7.62	6.93	6.20
H1 lead leg		strides		17	17	17	17		17	18	19	19	19		160				
Oshiro, Funa (JPN) (1999)		time	7.16	11.90	16.73	21.69	26.68		32.07	37.27	42.58	47.93	53.47		59.63	7 / 3			
reaction time	0.285	interval		4.74	4.83	4.96	4.99		5.39	5.20	5.31	5.35	5.54	6.16			14.53	15.58	16.20
		velocity	6.28	7.38	7.25	7.06	7.01		6.49	6.73	6.59	6.54	6.32	6.49	6.71		7.23	6.74	6.48
H1 lead leg		strides		17	17	17	17		18	18	18	18	18		158				
Kozaki, Haruka (JPN) (1999)		time	6.86	11.38	16.08	20.97	25.98		31.16	36.65	42.18	47.68	53.29		59.67	8 / 4			
reaction time	0.185	interval		4.52	4.70	4.89	5.01		5.18	5.49	5.53	5.50	5.61	6.38			14.11	15.68	16.64
		velocity	6.56	7.74	7.45	7.16	6.99		6.76	6.38	6.33	6.36	6.24	6.27	6.70		7.44	6.70	6.31
H1 lead leg		strides		17	17	17	17		17	17	17	17	17		153				

Fukushima, Eriko (JPN)		time	6.94	11.49	16.22	21.05	26.04	31.38	36.77	42.29	47.91	53.54		59.75	9 / 5			
reaction time	0.218	interval		4.55	4.73	4.83	4.99	5.34	5.39	5.52	5.62	5.63	6.21			14.11	15.72	16.77
		velocity	6.48	7.69	7.40	7.25	7.01	6.55	6.49	6.34	6.23	6.22	6.44	6.69		7.44	6.68	6.26
H1 lead leg		strides		17	17	17	17	18	18	19	19	19		161				
Sekimoto, Moeka (JPN) (200		time	6.86	11.29	15.97	20.89	26.08	31.26	36.74	42.16	47.75	53.32		59.83	2 / 6			
reaction time	0.187	interval		4.43	4.68	4.92	5.19	5.18	5.48	5.42	5.59	5.57	6.51			14.03	15.85	16.58
		velocity	6.56	7.90	7.48	7.11	6.74	6.76	6.39	6.46	6.26	6.28	6.14	6.69		7.48	6.62	6.33
H1 lead leg		strides		15	15	15	16	16	16	16	17	17		143				
Kawano, Shiho (JPN) (1999)		time	6.84	11.43	16.13	21.17	26.29	31.58	36.92	42.29	47.88	53.55		59.96	5 / 7			
reaction time	0.167	interval		4.59	4.70	5.04	5.12	5.29	5.34	5.37	5.59	5.67	6.41			14.33	15.75	16.63
		velocity	6.58	7.63	7.45	6.94	6.84	6.62	6.55	6.52	6.26	6.17	6.24	6.67		7.33	6.67	6.31
H1 lead leg		strides		16	16	17	17	17	17	17	18	18		153				
Arita, Asaki (JPN) (2000)		time	6.94	11.59	16.42	21.44	26.71	32.22	38.12	43.96	49.80	55.72		62.23	3 / 8			
reaction time	0.176	interval		4.65	4.83	5.02	5.27	5.51	5.90	5.84	5.84	5.92	6.51			14.50	16.68	17.60
		velocity	6.48	7.53	7.25	6.97	6.64	6.35	5.93	5.99	5.99	5.91	6.14	6.43		7.24	6.29	5.97
H1 lead leg		strides		17	17	17	17	17	19	19	19	19		161				

2017 Herculis Meeting International d'Athletisme (Monaco, MON) (TV Analysis)

FINAL date 21-Jul-17

Henson (2020) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Carter, Kori (USA) (1992)		time	6.20	10.32	14.48	18.68	23.04		27.52	32.36	37.12	42.12	47.24		53.36	6 / 1			
reaction time	0.142	interval		4.12	4.16	4.20	4.36		4.48	4.84	4.76	5.00	5.12	6.12			12.48	13.68	14.88
		velocity	7.26	8.50	8.41	8.33	8.03		7.81	7.23	7.35	7.00	6.84	6.54	7.50		8.41	7.68	7.06
H1 lead leg	L	strides	24	15	15	15	15		15	16	16	16	16	19.2	182.2				
Little, Shamier (USA) (1995)		time	6.32	10.40		19.00	23.44			32.60	37.52	42.60	47.84		54.02	4 / 2			
reaction time	0.214	interval		4.08		8.60	4.44			9.16	4.92	5.08	5.24	6.18			12.68	13.60	15.24
		velocity	7.12	8.58		8.14	7.88			7.64	7.11	6.89	6.68	6.47	7.40		8.28	7.72	6.89
H1 lead leg	R	strides	24	15			15				16	16	16	19.5	121.5				
Russell, Janieve (JAM) (1993		time	6.28	10.40		19.04	23.52			32.92	37.84	42.88	48.12		54.38	3 / 3			
reaction time	0.186	interval		4.12		8.64	4.48			9.40	4.92	5.04	5.24	6.26			12.76	13.88	15.20
		velocity	7.17	8.50		8.10	7.81			7.45	7.12	6.94	6.68	6.39	7.36		8.23	7.56	6.91
H1 lead leg	R	strides	22	15			15				16	16	16	19.7	119.7				
Doyle, Eilidh (GBR) (1987)		time	6.32	10.44	14.68	18.92	23.24		27.88	32.60	37.52	42.68	48.20		54.75	7 / 4			
reaction time	0.196	interval		4.12	4.24	4.24	4.32		4.64	4.72	4.92	5.16	5.52	6.55			12.60	13.68	15.60
		velocity	7.12	8.50	8.25	8.25	8.10		7.54	7.42	7.11	6.78	6.34	6.11	7.31		8.33	7.68	6.73
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	18	22	189				
Nel, Wenda (RSA) (1988)		time	6.44	10.68		19.60	24.12			33.68	38.76	43.96	49.52		55.90	2 /5			
reaction time	0.213	interval		4.24		8.92	4.52			9.56	5.08	5.20	5.56	6.38			13.16	14.08	15.84
		velocity	6.99	8.25		7.85	7.74			7.32	6.89	6.73	6.29	6.27	7.16		7.98	7.46	6.63
H1 lead leg	L	strides	23	16			16				17	17	18		107				
Spencer, Ashley (USA) (1993		time	6.36	10.56		19.36	23.88			33.20	38.20	43.60	49.44		55.92	5 / 6			
reaction time	0.180	interval		4.20		8.80	4.52			9.32	5.00	5.40	5.84	6.48			13.00	13.84	16.24
		velocity	7.08	8.33		7.95	7.74			7.51	7.00	6.48	5.99	6.17	7.15		8.08	7.59	6.47
H1 lead leg	L	strides	22	15			15				15	16	17		100				
Chaboudez, Aurelie (FRA) (		time	6.40	10.64		19.68	24.44			34.24	39.44	44.84	50.64		57.32	1 / 7			
reaction time	0.202	interval		4.24		9.04	4.76			9.80	5.20	5.40	5.80	6.68			13.28	14.56	16.40
		velocity	7.03	8.25		7.74	7.35			7.14	6.73	6.48	6.03	5.99	6.98		7.91	7.21	6.40
H1 lead leg	L	strides	24	16			16				17	17	18		108				
Nugent, Leah (JAM) (1992)		time	6.48	10.72	15.20	19.80	24.56			34.16	39.20	44.68	50.68		58.07	8 / 8			
reaction time	0.241	interval		4.24	4.48	4.60	4.76			9.60	5.04	5.48	6.00	7.39			13.32	14.36	16.52
		velocity	6.94	8.25	7.81	7.61	7.35			7.29	6.94	6.39	5.83	5.41	6.89		7.88	7.31	6.36
H1 lead leg	R	strides	22	15		15	15				15	16	16		114				

2017 Meeting International Mohammed VI D'Athletisme (Rabat, MAR) (TV Analysis)

FINAL date 16-Jul-17

Henson (2021) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hejnová, Zuzana (CZE) (198		time	6.44	10.68	14.96	19.32	23.80		28.44	33.12	38.00	43.04	48.20		54.22	6 / 1			
reaction time	0.155	interval		4.24	4.28	4.36	4.48		4.64	4.68	4.88	5.04	5.16	6.02			12.88	13.80	15.08
		velocity	6.99	8.25	8.18	8.03	7.81		7.54	7.48	7.17	6.94	6.78	6.64	7.38		8.15	7.61	6.96
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Russell, Janieve (JAM) (1993		time	6.56	10.88	15.28	19.68	24.20		28.88	33.64	38.48	43.44	48.48		54.36	7 / 2			
reaction time	0.152	interval		4.32	4.40	4.40	4.52		4.68	4.76	4.84	4.96	5.04	5.88			13.12	13.96	14.84
		velocity	6.86	8.10	7.95	7.95	7.74		7.48	7.35	7.23	7.06	6.94	6.80	7.36		8.00	7.52	7.08
H1 lead leg	L	strides	23	16	15	15	15		15	16	16	16	16	19.5	182.5				
Doyle, Eilidh (GBR) (1987)		time	6.48	10.68	15.00	19.40	23.92		28.64	33.48	38.52	43.64	48.80		54.92	8 / 3			
reaction time	0.157	interval		4.20	4.32	4.40	4.52		4.72	4.84	5.04	5.12	5.16	6.12			12.92	14.08	15.32

		velocity	6.94	8.33	8.10	7.95	7.74	7.42	7.23	6.94	6.84	6.78	6.54	7.28		8.13	7.46	6.85
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	17	17	21.2	187.2				
Sprunger, Leá (SUI) (1990)		time	6.44	10.72	15.20	19.68	24.40	29.28	34.20	39.24	44.40	49.56		55.22	4 / 4			
reaction time	0.130	interval		4.28	4.48	4.48	4.72	4.88	4.92	5.04	5.16	5.16	5.66			13.24	14.52	15.36
		velocity	6.99	8.18	7.81	7.81	7.42	7.17	7.11	6.94	6.78	6.78	7.07	7.24		7.93	7.23	6.84
H1 lead leg	R	strides	21	14	14	14	14	15	15	15	15	15	18.2	170.2				
Nel, Wenda (RSA) (1988)		time	6.40	10.80	15.28	19.80	24.52	29.20	34.04	38.96	44.00	49.20		55.31	2 / 5			
reaction time	0.189	interval		4.40	4.48	4.52	4.72	4.68	4.84	4.92	5.04	5.20	6.11			13.40	14.24	15.16
		velocity	7.03	7.95	7.81	7.74	7.42	7.48	7.23	7.11	6.94	6.73	6.55	7.23		7.84	7.37	6.93
H1 lead leg	L	strides	23	16	16	16	16	16	17	17	17	17	21	192				
Petersen, Sara Slott (DEN) (1		time	6.48	10.68	15.04	19.48	24.04	28.72	33.60	38.68	43.92	49.32		55.56	5 / 6			
reaction time	0.155	interval		4.20	4.36	4.44	4.56	4.68	4.88	5.08	5.24	5.40	6.24			13.00	14.12	15.72
		velocity	6.94	8.33	8.03	7.88	7.68	7.48	7.17	6.89	6.68	6.48	6.41	7.20		8.08	7.44	6.68
H1 lead leg	R	strides	22	15	15	15	15	15	15	16	17	17	20.5	182.5				
Tate, Cassandra (USA) (1990		time	6.44	10.64	14.96	19.36	23.96	28.68	33.64	38.76	44.00	49.40		55.70	1 / 7			
reaction time	0.213	interval		4.20	4.32	4.40	4.60	4.72	4.96	5.12	5.24	5.40	6.30			12.92	14.28	15.76
		velocity	6.99	8.33	8.10	7.95	7.61	7.42	7.06	6.84	6.68	6.48	6.35	7.18		8.13	7.35	6.66
H1 lead leg	R	strides	22	15	15	15	15	15	15	16	16	16	19.7	179.7				
Whyte, Rhonda (JAM) (1990		time	6.52	10.80	15.24	19.68	24.36	29.28	34.40	39.64	44.84	50.08		56.00	3 / 8			
reaction time	0.146	interval		4.28	4.44	4.44	4.68	4.92	5.12	5.24	5.20	5.24	5.92			13.16	14.72	15.68
		velocity	6.90	8.18	7.88	7.88	7.48	7.11	6.84	6.68	6.73	6.68	6.76	7.14		7.98	7.13	6.70
H1 lead leg	L	strides	23	15	15	15	15	16	17	17	16	17	19.7	185.7				

2017 Athletissima (Lausanne, SUI) (TV Analysis)

FINAL date 06-Jul-17

Henson (2021) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Spencer, Ashley (USA) (1993		time	6.48	10.76	15.20	19.68	24.32		28.96	33.60	38.28	43.08	48.28		53.90	6 / 1			
reaction time	0.154	interval		4.28	4.44	4.48	4.64		4.64	4.64	4.68	4.80	5.20	5.62			13.20	13.92	14.68
		velocity	6.94	8.18	7.88	7.81	7.54		7.54	7.54	7.48	7.29	6.73	7.12	7.42		7.95	7.54	7.15
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	16	18.2	176.2				
Sprunger, Leá (SUI) (1990)		time	6.44	10.72	15.00	19.44	23.96		28.64	33.44	38.44	43.52	48.68		54.29	7 / 2			
reaction time	0.121	interval		4.28	4.28	4.44	4.52		4.68	4.80	5.00	5.08	5.16	5.61	PB		13.00	14.00	15.24
		velocity	6.99	8.18	8.18	7.88	7.74		7.48	7.29	7.00	6.89	6.78	7.13	7.37		8.08	7.50	6.89
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15	18	170				
Doyle, Eilidh (GBR) (1987)		time	6.52	10.72	15.04	19.40	23.76		28.32	33.12	38.08	43.16	48.32		54.36	1 / 3			
reaction time	0.151	interval		4.20	4.32	4.36	4.36		4.56	4.80	4.96	5.08	5.16	6.04			12.88	13.72	15.20
		velocity	6.90	8.33	8.10	8.03	8.03		7.68	7.29	7.06	6.89	6.78	6.62	7.36		8.15	7.65	6.91
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	21.5	187.5				
Petersen, Sara Slott (DEN) (1		time	6.56	10.76	15.04	19.36	23.76		28.32	33.00	38.00	43.16	48.40		54.49	3 / 4			
reaction time	0.133	interval		4.20	4.28	4.32	4.40		4.56	4.68	5.00	5.16	5.24	6.09			12.80	13.64	15.40
		velocity	6.86	8.33	8.18	8.10	7.95		7.68	7.48	7.00	6.78	6.68	6.57	7.34		8.20	7.70	6.82
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20.2	181.2				
Hejnová, Zuzana (CZE) (1986		time	6.60	10.84	15.20	19.64	24.12		28.72	33.44	38.36	43.44	48.68		54.69	2 / 5			
reaction time	0.133	interval		4.24	4.36	4.44	4.48		4.60	4.72	4.92	5.08	5.24	6.01			13.04	13.80	15.24
		velocity	6.82	8.25	8.03	7.88	7.81		7.61	7.42	7.11	6.89	6.68	6.66	7.31		8.05	7.61	6.89
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.7	179.7				
Little, Shamier (USA) (1995)		time	6.48	10.80	15.24	19.64	24.12		28.72	33.36	38.16	43.28	48.64		55.10	4 / 6			
reaction time	0.230	interval		4.32	4.44	4.40	4.48		4.60	4.64	4.80	5.12	5.36	6.46			13.16	13.72	15.28
		velocity	6.94	8.10	7.88	7.95	7.81		7.61	7.54	7.29	6.84	6.53	6.19	7.26		7.98	7.65	6.87
H1 lead leg	R	strides	24	15	15	15	15		15	15	15	16	16	20	181				
Tracey, Ristananna (JAM) (1		time	6.72	11.00	15.32	19.68	24.12		28.88	33.80	38.92	44.28			56.23	8 / 7			
reaction time	0.206	interval		4.28	4.32	4.36	4.44		4.76	4.92	5.12	5.36					12.96	14.12	
		velocity	6.70	8.18	8.10	8.03	7.88		7.35	7.11	6.84	6.53			7.11		8.10	7.44	
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	17			148				
Muhammad, Dalilah (USA) (		time	6.56												dnf	5 / --			
reaction time	0.280	interval																	
		velocity	6.86																
H1 lead leg	R	strides	23												23				

2017 Shimane High School Championships (Honshu, JPN)

FINAL date 27-May-17

Shimizu (2018) - shimane high school championships 2018 - biomechanics data analysis

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
大賀 結莉		time	7.00	11.83	16.83	21.93	27.30		33.00	38.73	44.70	51.20	57.77		64.78	5 / 1			
	reaction time	interval		4.83	5.00	5.10	5.37		5.70	5.73	5.97	6.50	6.57	7.01			14.93	16.80	19.04
		velocity	6.43	7.25	7.00	6.86	6.52		6.14	6.11	5.86	5.38	5.33	5.71	6.17		7.03	6.25	5.51
	H1 lead leg	strides	24	17	17	17	17		18	18	18	19	19	22.5	206.5				

2017 USATF Championships (Sacramento, CA) (TV Analysis)

FINAL date 25-Jun-17

Henson (2021) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.04	10.01	14.18	18.48	22.69		26.99	31.50	36.27	41.27	46.44		52.64	5 / 1			
reaction time	0.186	interval		3.97	4.17	4.30	4.21		4.30	4.51	4.77	5.00	5.17	6.20	PB		12.44	13.02	14.94
		velocity	7.45	8.82	8.39	8.14	8.31		8.14	7.76	7.34	7.00	6.77	6.45	7.60		8.44	8.06	7.03
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	20	181				
Little, Shamier (USA) (1995)		time	6.34		14.51				27.36	31.96	36.77	41.84	46.94		52.75	4 / 2			
reaction time	0.217	interval			8.17				12.85	4.60	4.81	5.07	5.10	5.81	PB				14.98
		velocity	7.10		8.57				8.17	7.61	7.28	6.90	6.86	6.88	7.58				7.01
H1 lead leg	R	strides	24							15	16	16	16	19.5	106.5				
Carter, Kori (USA) (1992)		time	6.34	10.31	14.25	18.28	22.49		27.09	32.13	37.10	42.04	47.08		52.95	7 / 3			
reaction time	0.244	interval		3.97	3.94	4.03	4.21		4.60	5.04	4.97	4.94	5.04	5.87	PB		11.94	13.85	14.95
		velocity	7.10	8.82	8.88	8.68	8.31		7.61	6.94	7.04	7.09	6.94	6.81	7.55		8.79	7.58	7.02
H1 lead leg	L	strides	24	15	15	15	115		17	17	17	17	17	20	289				
Spencer, Ashley (USA) (1993		0.188	no information available											PB	53.11	3 / 4			
Moline, Georganne (USA) (1		time	6.34	10.44	14.65	18.92	23.22		27.69	32.36	37.10	42.04	47.05		53.14	6 / 5			
reaction time	0.272	interval		4.10	4.21	4.27	4.30		4.47	4.67	4.74	4.94	5.01	6.09	PB		12.58	13.44	14.69
		velocity	7.10	8.54	8.31	8.20	8.14		7.83	7.49	7.38	7.09	6.99	6.57	7.53		8.35	7.81	7.15
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19.7	178.7				
McLaughlin, Sydney (USA) (		time	6.27	10.51	14.71	18.89	23.12		27.69	32.46	37.37	42.57	47.81		53.82	8 / 6			
reaction time	0.305	interval		4.24	4.20	4.18	4.23		4.57	4.77	4.91	5.20	5.24	6.01	WJR PB		12.62	13.57	15.35
		velocity	7.18	8.25	8.33	8.37	8.27		7.66	7.34	7.13	6.73	6.68	6.66	7.43		8.32	7.74	6.84
H1 lead leg	R	strides	23	14	14	14	14		15	15	15	16	16	18.5	174.5				
Stepter, Jaide (USA) (1994)		0.247	no information available												55.06	2 / 7			
Cockrell, Anna (USA) (1997		0.209	no information available											PB	55.14	1 / 8			

2017 Japanese National Championships (Osaka, JPN)

FINAL date 24-Jun-17

Morioka (2018) - Analysis of the race patterns of the top 400m hurdles in Japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Aoki, Sayaka (JPN) (1986)		time	6.52	10.91	15.31	19.85	24.52		29.39	34.36	39.37	44.56	49.95		56.35	/ 1			
reaction time	0.186	interval		4.39	4.40	4.54	4.67		4.87	4.97	5.01	5.19	5.39	6.40			13.33	14.51	15.59
		velocity	6.90	7.97	7.95	7.71	7.49		7.19	7.04	6.99	6.74	6.49	6.25	7.10		7.88	7.24	6.74
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				

2017 Golden Gala Pietro Mennea (Rome, ITA) (TV Analysis)

FINAL date 08-Jun-17

Henson (2020) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Janieve (JAM) (1993		time	6.28	10.44	14.56	18.80	23.12		27.60	32.40	37.28	42.44	47.84		54.14	8 / 1			
reaction time	0.183	interval		4.16	4.12	4.24	4.32		4.48	4.80	4.88	5.16	5.40	6.30			12.52	13.60	15.44
		velocity	7.17	8.41	8.50	8.25	8.10		7.81	7.29	7.17	6.78	6.48	6.35	7.39		8.39	7.72	6.80
H1 lead leg	R	strides	22	15	15	15	15		15	16	16	17	17	20.5	183.5				
Petersen, Sara Slott (DEN) (1		time	6.56	10.80	15.08	19.32	23.72		28.28	32.96	37.92	43.04	48.32		54.35	4 / 2			
reaction time	0.158	interval		4.24	4.28	4.24	4.40		4.56	4.68	4.96	5.12	5.28	6.03			12.76	13.64	15.36
		velocity	6.86	8.25	8.18	8.25	7.95		7.68	7.48	7.06	6.84	6.63	6.63	7.36		8.23	7.70	6.84
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20.5	181.5				
Nel, Wenda (RSA) (1988)		time	6.44	10.80	15.28	19.76	24.36		29.00	33.72	38.56	43.52	48.64		54.58	6 / 3			
reaction time	0.171	interval		4.36	4.48	4.48	4.60		4.64	4.72	4.84	4.96	5.12	5.94			13.32	13.96	14.92
		velocity	6.99	8.03	7.81	7.81	7.61		7.54	7.42	7.23	7.06	6.84	6.73	7.33		7.88	7.52	7.04
H1 lead leg	L	strides	23	16	16	16	16		16	16	16	17	17	20.5	189.5				
Hejnová, Zuzana (CZE) (198		time	6.52	10.68	15.00	19.40	23.84		28.52	33.24	38.12	43.36	48.84		55.27	5 / 4			
reaction time	0.152	interval		4.16	4.32	4.40	4.44		4.68	4.72	4.88	5.24	5.48	6.43			12.88	13.84	15.60
		velocity	6.90	8.41	8.10	7.95	7.88		7.48	7.42	7.17	6.68	6.39	6.22	7.24		8.15	7.59	6.73
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	17	17	20.2	182.2				
Stepter, Jaide (USA) (1994)		time	6.40	10.52	14.72	19.04	23.48		28.04	32.92	38.28	43.72	49.24		55.62	9 / 5			
reaction time	0.134	interval		4.12	4.20	4.32	4.44		4.56	4.88	5.36	5.44	5.52	6.38			12.64	13.88	16.32
		velocity	7.03	8.50	8.33	8.10	7.88		7.68	7.17	6.53	6.43	6.34	6.27	7.19		8.31	7.56	6.43
H1 lead leg	L	strides	23	15	15	15	15		15	15	17	17	17	20.2	184.2				
Adekoya, Kemi (BRN) (1993)		time	6.36	10.64	14.96	19.56	24.20		29.04	34.16	39.36	44.60	49.92		55.63	2 / 6			
reaction time	0.169	interval		4.28	4.32	4.60	4.64		4.84	5.12	5.20	5.24	5.32	5.71			13.20	14.60	15.76
		velocity	7.08	8.18	8.10	7.61	7.54		7.23	6.84	6.73	6.68	6.58	7.01	7.19		7.95	7.19	6.66
H1 lead leg	R	strides	23	15	16	16	16		17	17	17	17	17	19.7	190.7				
Pedroso, Yadisleidis (ITA) (1		time	6.52	10.80	15.24	19.76	24.40		29.32	34.16	39.12	44.28	49.56		55.70	7 / 7			
reaction time	0.200	interval		4.28	4.44	4.52	4.64		4.92	4.84	4.96	5.16	5.28	6.14			13.24	14.40	15.40
		velocity	6.90	8.18	7.88	7.74	7.54		7.11	7.23	7.06	6.78	6.63	6.51	7.18		7.93	7.29	6.82
H1 lead leg	R	strides	24	16	16	16	16		16	16	17	18	18	21	194				

Caravelli, Marzia (ITA) (1981)		time	6.60	10.88	15.36	20.00	24.68	29.56	34.32	39.16	44.40	49.68		55.83	1 / 8			
reaction time	0.170	interval		4.28	4.48	4.64	4.68	4.88	4.76	4.84	5.24	5.28	6.15			13.40	14.32	15.36
		velocity	6.82	8.18	7.81	7.54	7.48	7.17	7.35	7.23	6.68	6.63	6.50	7.16		7.84	7.33	6.84
H1 lead leg	R	strides	22	15	15	15	15	15	15	15	16	16	19.5	178.5				
Doyle, Eilidh (GBR) (1987)		time	6.48	10.64	14.88	19.20	23.56	28.28	33.08	38.08	43.48	49.28		55.86	3 / 9			
reaction time	0.165	interval		4.16	4.24	4.32	4.36	4.72	4.80	5.00	5.40	5.80	6.58			12.72	13.88	16.20
		velocity	6.94	8.41	8.25	8.10	8.03	7.42	7.29	7.00	6.48	6.03	6.08	7.16		8.25	7.56	6.48
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	19	19	22	192				

2017 Prefontaine Classic (Eugene, OR) (TV Analysis)

FINAL date 27-May-17

Henson (2020) - Athlete First: 2017 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Spencer, Ashley (USA) (1993		time	6.50	10.76	15.13	19.67	24.23		28.76	33.36	38.03	42.83	47.83		53.38	6 / 1			
reaction time	0.240	interval		4.26	4.37	4.54	4.56		4.53	4.60	4.67	4.80	5.00	5.55	PB		13.17	13.69	14.47
		velocity	6.92	8.22	8.01	7.71	7.68		7.73	7.61	7.49	7.29	7.00	7.21	7.49		7.97	7.67	7.26
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	15	18.2	175.2				
Little, Shamier (USA) (1995)		time	6.40	10.46	14.66	19.03	23.50		27.93	32.66	37.50	42.53	47.60		53.44	1 / 2			
reaction time	0.236	interval		4.06	4.20	4.37	4.47		4.43	4.73	4.84	5.03	5.07	5.84	PB		12.63	13.63	14.94
		velocity	7.03	8.62	8.33	8.01	7.83		7.90	7.40	7.23	6.96	6.90	6.85	7.49		8.31	7.70	7.03
H1 lead leg	R	strides	24	15	15	15	15		15	15	16	16	16	19.5	181.5				
Moline, Georganne (USA) (1		time	6.53	10.73	15.13	19.60	24.13		28.76	33.63	38.60	43.60	48.60		54.09	3 / 3			
reaction time	0.285	interval		4.20	4.40	4.47	4.53		4.63	4.87	4.97	5.00	5.00	5.49			13.07	14.03	14.97
		velocity	6.89	8.33	7.95	7.83	7.73		7.56	7.19	7.04	7.00	7.00	7.29	7.40		8.03	7.48	7.01
H1 lead leg	R	strides	22	15	15	15	15		15	16	16	16	16	19	180				
Hejnová, Zuzana (CZE) (198		time	6.60	10.83	15.13	19.46	23.93		28.56	33.30	38.26	43.26	48.43		54.50	7 / 4			
reaction time	0.173	interval		4.23	4.30	4.33	4.47		4.63	4.74	4.96	5.00	5.17	6.07			12.86	13.84	15.13
		velocity	6.82	8.27	8.14	8.08	7.83		7.56	7.38	7.06	7.00	6.77	6.59	7.34		8.16	7.59	6.94
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Muhammad, Dalilah (USA) (		time	6.26	10.36	14.80	19.40	24.06		28.60	33.30	38.13	43.30	48.43		54.53	5 / 5			
reaction time	0.289	interval		4.10	4.44	4.60	4.66		4.54	4.70	4.83	5.17	5.13	6.10			13.14	13.90	15.13
		velocity	7.19	8.54	7.88	7.61	7.51		7.71	7.45	7.25	6.77	6.82	6.56	7.34		7.99	7.55	6.94
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.5	179.5				
Petersen, Sara Slott (DEN) (1		time	6.53	10.76	15.06	19.46	23.93		28.56	33.53	38.56	43.66	48.90		54.85	4 / 6			
reaction time	0.409	interval		4.23	4.30	4.40	4.47		4.63	4.97	5.03	5.10	5.24	5.95			12.93	14.07	15.37
		velocity	6.89	8.27	8.14	7.95	7.83		7.56	7.04	6.96	6.86	6.68	6.72	7.29		8.12	7.46	6.83
H1 lead leg	R	strides	22	15	15	15	15		15	16	16	17	17	20.2	183.2				
Carter, Kori (USA) (1992)		time	6.43	10.66	14.96	19.36	24.06		28.83	33.56	38.36	43.46	48.66		54.98	8 / 7			
reaction time	0.280	interval		4.23	4.30	4.40	4.70		4.77	4.73	4.80	5.10	5.20	6.32			12.93	14.20	15.10
		velocity	7.00	8.27	8.14	7.95	7.45		7.34	7.40	7.29	6.86	6.73	6.33	7.28		8.12	7.39	6.95
H1 lead leg	R	strides	23	15	15	15	16		16	16	16	16	16	19.7	183.7				
Russell, Janieve (JAM) (1993		time	6.73	11.03	15.46	19.93	24.56		29.20	34.20	39.23	44.40	49.96		56.21	2 / 8			
reaction time	0.223	interval		4.30	4.43	4.47	4.63		4.64	5.00	5.03	5.17	5.56	6.25			13.20	14.27	15.76
		velocity	6.69	8.14	7.90	7.83	7.56		7.54	7.00	6.96	6.77	6.29	6.40	7.12		7.95	7.36	6.66
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	17		163				

2016 Memorial van Damme (Brussels, BEL) (TV Analysis)

FINAL date 09-Sep-16

Henson (2021) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tate, Cassandra (USA) (1990		time	6.20	10.36	14.68	19.12	23.68		28.28	33.04	38.00	43.20	48.44		54.47	7 / 1			
reaction time	0.228	interval		4.16	4.32	4.44	4.56		4.60	4.76	4.96	5.20	5.24	6.03			12.92	13.92	15.40
		velocity	7.26	8.41	8.10	7.88	7.68		7.61	7.35	7.06	6.73	6.68	6.63	7.34		8.13	7.54	6.82
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Petersen, Sara Slott (DEN) (1		time	6.44	10.68	15.08	19.44	23.84		28.36	33.12	38.08	43.20	48.44		54.60	5 / 2			
reaction time	0.162	interval		4.24	4.40	4.36	4.40		4.52	4.76	4.96	5.12	5.24	6.16			13.00	13.68	15.32
		velocity	6.99	8.25	7.95	8.03	7.95		7.74	7.35	7.06	6.84	6.68	6.49	7.33		8.08	7.68	6.85
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Spencer, Kaliese (JAM) (1987		time	6.44	10.68	15.04	19.56	24.20		28.88	33.68	38.64	43.76	49.04		55.05	6 / 3			
reaction time	0.182	interval		4.24	4.36	4.52	4.64		4.68	4.80	4.96	5.12	5.28	6.01			13.12	14.12	15.36
		velocity	6.99	8.25	8.03	7.74	7.54		7.48	7.29	7.06	6.84	6.63	6.66	7.27		8.00	7.44	6.84
H1 lead leg	L	strides	22	14	14	15	15		15	15	15	16	16	18.7	175.7				
Hejnová, Zuzana (CZE) (198		time	6.56	10.80	15.08	19.48	23.92		28.48	33.24	38.24	43.40	48.76		55.12	3 / 4			
reaction time	0.159	interval		4.24	4.28	4.40	4.44		4.56	4.76	5.00	5.16	5.36	6.36			12.92	13.76	15.52
		velocity	6.86	8.25	8.18	7.95	7.88		7.68	7.35	7.00	6.78	6.53	6.29	7.26		8.13	7.63	6.77
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	20.5	181.5				
Doyle, Eilidh (GBR) (1987)		time	6.36	10.48	14.68	18.96	23.40		28.04	32.92	38.00	43.28	48.72		55.26	4 / 5			
reaction time	0.204	interval		4.12	4.20	4.28	4.44		4.64	4.88	5.08	5.28	5.44	6.54			12.60	13.96	15.80
		velocity	7.08	8.50	8.33	8.18	7.88		7.54	7.17	6.89	6.63	6.43	6.12	7.24		8.33	7.52	6.65

H1 lead leg	L	strides	23	15	15	15	15	16	17	17	18	18	21.5	190.5				
Nel, Wenda (RSA) (1988)		time	6.44	10.64	14.96	19.40	24.04	28.64	33.48	38.44	43.56	48.96		55.41	2 / 6			
reaction time	0.186	interval		4.20	4.32	4.44	4.64	4.60	4.84	4.96	5.12	5.40	6.45			12.96	14.08	15.48
		velocity	6.99	8.33	8.10	7.88	7.54	7.61	7.23	7.06	6.84	6.48	6.20	7.22		8.10	7.46	6.78
H1 lead leg	L	strides	23	15	15	16	16	16	17	17	17	17	22	191				
Stepter, Jaide (USA) (1994)		time	6.48	10.72	14.96	19.32	23.84	28.52	33.52	38.56	43.84	49.44		55.88	9 / 7			
reaction time	0.235	interval		4.24	4.24	4.36	4.52	4.68	5.00	5.04	5.28	5.60	6.44			12.84	14.20	15.92
		velocity	6.94	8.25	8.25	8.03	7.74	7.48	7.00	6.94	6.63	6.25	6.21	7.16		8.18	7.39	6.60
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	16	17	20	182				
Titimets, Hanna (UKR) (1989		time	6.52	10.76	15.08	19.52	24.12	28.84	33.80	39.00	44.28	49.72		55.92	1 / 8			
reaction time	0.205	interval		4.24	4.32	4.44	4.60	4.72	4.96	5.20	5.28	5.44	6.20			13.00	14.28	15.92
		velocity	6.90	8.25	8.10	7.88	7.61	7.42	7.06	6.73	6.63	6.43	6.45	7.15		8.08	7.35	6.60
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16	20	180				
Dauwens, Axelle (BEL) (1990		time	6.48	10.72	15.08	19.52	24.08	28.92	34.04	39.40	44.92	50.88		58.34	8 / 9			
reaction time	0.172	interval		4.24	4.36	4.44	4.56	4.84	5.12	5.36	5.52	5.96	7.46			13.04	14.52	16.84
		velocity	6.94	8.25	8.03	7.88	7.68	7.23	6.84	6.53	6.34	5.87	5.36	6.86		8.05	7.23	6.24
H1 lead leg	L	strides	22	15	15	15	15	16	17	17	17	18		167				

2016 Japanese University Championships (Kumagaya, JPN)

FINAL date 03-Sep-16 *(2016.09.04) - https://twitter.com/touchdown_time/media?lang=en&lang=en&lang=en&lang=en*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Umehara, Satsuki (JPN) (199		time	6.71	11.08	15.49	20.02	24.69		29.58	34.58	39.69	45.07	50.50		56.79	6 / 1			
reaction time	0.170	interval		4.37	4.41	4.53	4.67		4.89	5.00	5.11	5.38	5.43	6.29	PB		13.31	14.56	15.92
		velocity	6.71	8.01	7.94	7.73	7.49		7.16	7.00	6.85	6.51	6.45	6.36	7.04		7.89	7.21	6.60
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	18	18	22	197				
Ishizuka, Haruko (JPN) (1997		time	6.64	10.81	15.15	19.57	24.33		29.23	34.25	39.47	44.81	50.47		56.81	7 / 2			
reaction time	0.197	interval		4.17	4.34	4.42	4.76		4.90	5.02	5.22	5.34	5.66	6.34			12.93	14.68	16.22
		velocity	6.78	8.39	8.06	7.92	7.35		7.14	6.97	6.70	6.55	6.18	6.31	7.04		8.12	7.15	6.47
H1 lead leg	R	strides	23	15	15	15	16		16	17	17	17	18	22	191				

2016 Weltklasse (Zürich, SUI) (TV Analysis)

FINAL date 01-Sep-16 *Henson (2021) - Athlete First: 2016 year end hurdle report*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Little, Shamier (USA) (1995)		time	6.32	10.44	14.68	19.00	23.36		27.88	32.48	37.36	42.44	47.80		53.97	3 / 1			
reaction time	0.215	interval		4.12	4.24	4.32	4.36		4.52	4.60	4.88	5.08	5.36	6.17			12.68	13.48	15.32
		velocity	7.12	8.50	8.25	8.10	8.03		7.74	7.61	7.17	6.89	6.53	6.48	7.41		8.28	7.79	6.85
H1 lead leg	R	strides	23	15	15		15		15	15	16	16	17	20	167				
Petersen, Sara Slott (DEN) (1		time	6.44	10.64	14.92	19.28	23.72		28.28	33.04	37.96	42.96	48.16		54.22	6 / 2			
reaction time	0.160	interval		4.20	4.28	4.36	4.44		4.56	4.76	4.92	5.00	5.20	6.06			12.84	13.76	15.12
		velocity	6.99	8.33	8.18	8.03	7.88		7.68	7.35	7.11	7.00	6.73	6.60	7.38		8.18	7.63	6.94
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Doyle, Eilidh (GBR) (1987)		time	6.36	10.52	14.76	19.12	23.52		28.16	33.00	37.92	43.04	48.36		54.55	4 / 3			
reaction time	0.184	interval		4.16	4.24	4.36	4.40		4.64	4.84	4.92	5.12	5.32	6.19			12.76	13.88	15.36
		velocity	7.08	8.41	8.25	8.03	7.95		7.54	7.23	7.11	6.84	6.58	6.46	7.33		8.23	7.56	6.84
H1 lead leg	L	strides	23	15	15		15		16	16	16	17	17	21	171				
Nel, Wenda (RSA) (1988)		time	6.40	10.68	15.04	19.52	24.04		28.60	33.28	38.24	43.40	48.84		55.15	5 / 4			
reaction time	0.193	interval		4.28	4.36	4.48	4.52		4.56	4.68	4.96	5.16	5.44	6.31			13.12	13.76	15.56
		velocity	7.03	8.18	8.03	7.81	7.74		7.68	7.48	7.06	6.78	6.43	6.34	7.25		8.00	7.63	6.75
H1 lead leg	L	strides	23	15	15		16		16	16	17	17	17	21.5	173.5				
Folorunso, Ayomide (ITA) (1		time	6.56	10.96	15.40	20.04	24.68		29.44	34.32	39.48	44.60	49.84		55.69	1 / 5			
reaction time	0.203	interval		4.40	4.44	4.64	4.64		4.76	4.88	5.16	5.12	5.24	5.85			13.48	14.28	15.52
		velocity	6.86	7.95	7.88	7.54	7.54		7.35	7.17	6.78	6.84	6.68	6.84	7.18		7.79	7.35	6.77
H1 lead leg	R	strides	23	16	16		16		16	17	17	17	17	20	175				
Sprunger, Leá (SUI) (1990)		time	6.60	10.96	15.40	19.88	24.56		29.32	34.24	39.32	44.64			55.71	7 / 6			
reaction time	0.127	interval		4.36	4.44	4.48	4.68		4.76	4.92	5.08	5.32					13.28	14.36	
		velocity	6.82	8.03	7.88	7.81	7.48		7.35	7.11	6.89	6.58			7.18		7.91	7.31	
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16			143				
Titimets, Anna (UKR) (1989)		time	6.52	10.76	15.20	19.68	24.32		29.00	33.84	38.80	44.08	49.52		55.72	2 / 7			
reaction time	0.180	interval		4.24	4.44	4.48	4.64		4.68	4.84	4.96	5.28	5.44	6.20			13.16	14.16	15.68
		velocity	6.90	8.25	7.88	7.81	7.54		7.48	7.23	7.06	6.63	6.43	6.45	7.18		7.98	7.42	6.70
H1 lead leg	L	strides	22	15	15		15		15	15	15	16	16	20	164				
Linkiewicz, Joanna (POL) (19		time	6.56	10.92	15.40	20.00	24.76		29.68	34.64	39.72	44.84			56.24	8 / 8			
reaction time	0.183	interval		4.36	4.48	4.60	4.76		4.92	4.96	5.08	5.12					13.44	14.64	
		velocity	6.86	8.03	7.81	7.61	7.35		7.11	7.06	6.89	6.84			7.11		7.81	7.17	
H1 lead leg	L	strides	24	16	16		16		17	17	17	17			140				

2016 Athletissime (Laussane, SUI) (TV Analysis)

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

FINAL date 25-Aug-16

Henson (2020) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.12	10.20	14.56	18.96	23.48		28.04	32.68	37.52	42.52	47.76		53.78	5 / 1			
reaction time	0.118	interval		4.08	4.36	4.40	4.52		4.56	4.64	4.84	5.00	5.24	6.02			12.84	13.72	15.08
		velocity	7.35	8.58	8.03	7.95	7.74		7.68	7.54	7.23	7.00	6.68	6.64	7.44		8.18	7.65	6.96
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	19.7	180.7				
Doyle, Eilidh (GBR) (1987)		time	6.36	10.56	14.80	19.12	23.56		28.28	33.08	38.04	43.20	48.40		54.45	3 / 2			
reaction time	0.157	interval		4.20	4.24	4.32	4.44		4.72	4.80	4.96	5.16	5.20	6.05			12.76	13.96	15.32
		velocity	7.08	8.33	8.25	8.10	7.88		7.42	7.29	7.06	6.78	6.73	6.61	7.35		8.23	7.52	6.85
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	21	187				
Petersen, Sara Slott (DEN) (1		time	6.40	10.60	14.88	19.24	23.72		28.32	33.04	38.04	43.28	48.64		54.98	6 / 3			
reaction time	0.123	interval		4.20	4.28	4.36	4.48		4.60	4.72	5.00	5.24	5.36	6.34			12.84	13.80	15.60
		velocity	7.03	8.33	8.18	8.03	7.81		7.61	7.42	7.00	6.68	6.53	6.31	7.28		8.18	7.61	6.73
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	17	17	20.2	182.2				
Tate, Cassandra (USA) (1990		time	6.32	10.52	14.96	19.52	24.32		29.04	33.96	38.88	44.08	49.32		55.14	8 / 4			
reaction time	0.235	interval		4.20	4.44	4.56	4.80		4.72	4.92	4.92	5.20	5.24	5.82			13.20	14.44	15.36
		velocity	7.12	8.33	7.88	7.68	7.29		7.42	7.11	7.11	6.73	6.68	6.87	7.25		7.95	7.27	6.84
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Little, Shamier (USA) (1995)		time	6.40	10.60	14.92	19.32	23.80		28.48	33.36	38.28	43.52	49.04		55.20	4 / 5			
reaction time	0.249	interval		4.20	4.32	4.40	4.48		4.68	4.88	4.92	5.24	5.52	6.16			12.92	14.04	15.68
		velocity	7.03	8.33	8.10	7.95	7.81		7.48	7.17	7.11	6.68	6.34	6.49	7.25		8.13	7.48	6.70
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	17	17	20	185				
Spencer, Ashley (USA) (1993		time	6.56	10.84	15.24	19.76	24.40		29.04	33.88	38.88	44.28	49.80		55.86	2 / 6			
reaction time	0.159	interval		4.28	4.40	4.52	4.64		4.64	4.84	5.00	5.40	5.52	6.06			13.20	14.12	15.92
		velocity	6.86	8.18	7.95	7.74	7.54		7.54	7.23	7.00	6.48	6.34	6.60	7.16		7.95	7.44	6.60
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	18.2	177.2				
Titimets, Anna (UKR) (1989)		time	6.60	10.92	15.32	19.88	24.52		29.32	34.20	39.24	44.48	49.88		55.99	1 / 7			
reaction time	0.188	interval		4.32	4.40	4.56	4.64		4.80	4.88	5.04	5.24	5.40	6.11			13.28	14.32	15.68
		velocity	6.82	8.10	7.95	7.68	7.54		7.29	7.17	6.94	6.68	6.48	6.55	7.14		7.91	7.33	6.70
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	19.5	178.5				
Sprunger, Leá (SUI) (1990)		time	6.56	10.92	15.32	19.84	24.52		29.32	34.28	39.36	44.68	50.20		56.05	7 / 8			
reaction time	0.136	interval		4.36	4.40	4.52	4.68		4.80	4.96	5.08	5.32	5.52	5.85			13.28	14.44	15.92
		velocity	6.86	8.03	7.95	7.74	7.48		7.29	7.06	6.89	6.58	6.34	6.84	7.14		7.91	7.27	6.60
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	18	177				

2016 Olympic Games (Rio de Janeiro, BRA) (TV Analysis

FINAL date 18-Aug-16

Henson (2021) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.00	10.00	14.16	18.44	22.84		27.24	31.88	36.68	41.80	47.08		53.13	3 / 1			
reaction time	0.143	interval		4.00	4.16	4.28	4.40		4.40	4.64	4.80	5.12	5.28	6.05			12.44	13.44	15.20
		velocity	7.50	8.75	8.41	8.18	7.95		7.95	7.54	7.29	6.84	6.63	6.61	7.53		8.44	7.81	6.91
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Petersen, Sara Slott (DEN) (1		time	6.32	10.44	14.72	19.00	23.36		27.84	32.48	37.40	42.36	47.64		53.55	4 / 2			
reaction time	0.161	interval		4.12	4.28	4.28	4.36		4.48	4.64	4.92	4.96	5.28	5.91	**NR PB**		12.68	13.48	15.16
		velocity	7.12	8.50	8.18	8.18	8.03		7.81	7.54	7.11	7.06	6.63	6.77	7.47		8.28	7.79	6.93
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Spencer, Ashley (USA) (1993		time	6.52	10.84	15.24	19.60	24.12		28.72	33.40	38.16	42.96	47.92		53.72	5 / 3			
reaction time	0.172	interval		4.32	4.40	4.36	4.52		4.60	4.68	4.76	4.80	4.96	5.80	**PB**		13.08	13.80	14.52
		velocity	6.90	8.10	7.95	8.03	7.74		7.61	7.48	7.35	7.29	7.06	6.90	7.45		8.03	7.61	7.23
H1 lead leg	L	strides	22	15	15	14	15		15	15	15	15	15	18.5	174.5				
Hejnová, Zuzana (CZE) (198		time	6.48	10.64	14.88	19.20	23.56		28.12	32.76	37.60	42.60	47.76		53.92	6 / 4			
reaction time	0.157	interval		4.16	4.24	4.32	4.36		4.56	4.64	4.84	5.00	5.16	6.16			12.72	13.56	15.00
		velocity	6.94	8.41	8.25	8.10	8.03		7.68	7.54	7.23	7.00	6.78	6.49	7.42		8.25	7.74	7.00
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Tracey, Ristanna (JAM) (199		time	6.44	10.56	14.80	19.08	23.48		28.16	32.96	37.96	42.96	48.20		54.15	7 / 5			
reaction time	0.213	interval		4.12	4.24	4.28	4.40		4.68	4.80	5.00	5.00	5.24	5.95	**PB**		12.64	13.88	15.24
		velocity	6.99	8.50	8.25	8.18	7.95		7.48	7.29	7.00	7.00	6.68	6.72	7.39		8.31	7.56	6.89
H1 lead leg	L	strides	22	15	15	15	15		16	16	16	16	16	20	182				
Nugent, Leah (JAM) (1992)		time	6.36	10.44	14.76	19.16	23.68		28.36	33.16	38.04	43.00	48.12		54.45	2 / 6			
reaction time	0.226	interval		4.08	4.32	4.40	4.52		4.68	4.80	4.88	4.96	5.12	6.33	**PB**		12.80	14.00	14.96
		velocity	7.08	8.58	8.10	7.95	7.74		7.48	7.29	7.17	7.06	6.84	6.32	7.35		8.20	7.50	7.02
H1 lead leg	R	strides	23	13	14	14	14		14	15	15	15	15	19	171				
Russell, Janieve (JAM) (1993		time	6.40	10.52	14.68		23.32		27.84	32.64	37.52	42.64	48.00		54.46	8 / 7			
reaction time	0.140	interval		4.12	4.16		8.64		4.52	4.80	4.88	5.12	5.36	6.46					15.36
		velocity	7.03	8.50	8.41		8.10		7.74	7.29	7.17	6.84	6.53	6.19	7.34				6.84
H1 lead leg	R	strides	22	14	14	14			15	16	16	17	17	20.2	165.2				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Doyle, Eilidh (GBR) (1987)		time	6.44	10.64	14.92	19.24	23.68	28.32	33.12	38.12	43.24	48.48		54.61	1 / 8			
reaction time	0.171	interval		4.20	4.28	4.32	4.44	4.64	4.80	5.00	5.12	5.24	6.13			12.80	13.88	15.36
		velocity	6.99	8.33	8.18	8.10	7.88	7.54	7.29	7.00	6.84	6.68	6.53	7.32		8.20	7.56	6.84
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	17	17	21	187				

2016 Japanese National High School Championships (Okayama, JPN)

FINAL date 31-Jul-16

Kota (2016) - 69th high school championships: JAF scientific committee - biomechanics data collection

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sekimoto, Moeka (JPN) (200		time	6.61	10.93	15.49	20.32	25.39		30.43	35.62	40.94	46.58	52.35		59.14	4 / 1			
reaction time	0.158	interval		4.32	4.56	4.83	5.07		5.04	5.19	5.32	5.64	5.77	6.79			13.71	15.30	16.73
		velocity	6.81	8.10	7.68	7.25	6.90		6.94	6.74	6.58	6.21	6.07	5.89	6.76		7.66	6.86	6.28
H1 lead leg		strides		15	15	15	16		16	16	16	17	17		143				
Koyama, Kana (JPN) (1998)		time	6.79	11.29	16.02	21.00	26.06		31.06	36.15	41.39	46.78	52.55		59.18	5 / 2			
reaction time		interval		4.50	4.73	4.98	5.06		5.00	5.09	5.24	5.39	5.77	6.63			14.21	15.15	16.40
		velocity	6.63	7.78	7.40	7.03	6.92		7.00	6.88	6.68	6.49	6.07	6.03	6.76		7.39	6.93	6.40
H1 lead leg		strides		15	15	16	16		17	17	17	17	17		147				
Murakami, Natsumi (JPN) (1		time	6.84	11.34	16.11	20.97	25.94		30.95	35.94	41.19	46.83	52.64		59.19	7 / 3			
reaction time		interval		4.50	4.77	4.86	4.97		5.01	4.99	5.25	5.64	5.81	6.55	PB		14.13	14.97	16.70
		velocity	6.58	7.78	7.34	7.20	7.04		6.99	7.01	6.67	6.21	6.02	6.11	6.76		7.43	7.01	6.29
H1 lead leg		strides		17	17	17	17		17	17	17	19	19		157				
Higa, Kazuki (JPN) (1998)		time	6.84	11.33	16.07	20.87	25.89		30.86	35.94	41.51	47.23	53.03		59.39	6 / 4			
reaction time		interval		4.49	4.74	4.80	5.02		4.97	5.08	5.57	5.72	5.80	6.36			14.03	15.07	17.09
		velocity	6.58	7.80	7.38	7.29	6.97		7.04	6.89	6.28	6.12	6.03	6.29	6.74		7.48	6.97	6.14
H1 lead leg		strides		17	17	17	17		17	17	19	19	19		159				
Hirahara, Kyoka (JPN) (1998)		time	7.07	11.76	16.68	21.91	27.14		32.40	37.67	43.13	48.63	54.32		60.61	8 / 5			
reaction time		interval		4.69	4.92	5.23	5.23		5.26	5.27	5.46	5.50	5.69	6.29			14.84	15.76	16.65
		velocity	6.36	7.46	7.11	6.69	6.69		6.65	6.64	6.41	6.36	6.15	6.36	6.60		7.08	6.66	6.31
H1 lead leg		strides		16	16	18	17		17	17	17	17	18		153				
Nakahara, Minami (JPN) (199		time	6.82	11.31	16.05	21.07	26.23		31.38	36.69	42.23	48.00	54.10		60.69	9 / 6			
reaction time		interval		4.49	4.74	5.02	5.16		5.15	5.31	5.54	5.77	6.10	6.59			14.25	15.62	17.41
		velocity	6.60	7.80	7.38	6.97	6.78		6.80	6.59	6.32	6.07	5.74	6.07	6.59		7.37	6.72	6.03
H1 lead leg		strides		15	15	17	16		16	17	17	17	19		149				
Kuritani, Mizuki (JPN) (1998)		time	6.79	11.29	16.23	21.35	26.74		32.18	37.70	43.31	49.05	54.85		61.21	3 / 7			
reaction time		interval		4.50	4.94	5.12	5.39		5.44	5.52	5.61	5.74	5.80	6.36			14.56	16.35	17.15
		velocity	6.63	7.78	7.09	6.84	6.49		6.43	6.34	6.24	6.10	6.03	6.29	6.53		7.21	6.42	6.12
H1 lead leg		strides		17	17	17	17		18	18	18	18	18		158				
Tokuhara, Kyoka (JPN) (199		time	7.07	11.70	16.67	21.96	27.34		32.85	38.37	43.99	49.57	55.11		61.23	2 / 8			
reaction time		interval		4.63	4.97	5.29	5.38		5.51	5.52	5.62	5.58	5.54	6.12			14.89	16.41	16.74
		velocity	6.36	7.56	7.04	6.62	6.51		6.35	6.34	6.23	6.27	6.32	6.54	6.53		7.05	6.40	6.27
H1 lead leg		strides		17	17	19	19		19	19	19	19	19		167				

2016 London Anniversary Games (London, GBR) (TV Analysis)

FINAL date 22-Jul-16

Henson (2021) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.10	10.23	14.53	18.90	23.53		28.00	32.70	37.50	42.53	47.83		53.90	6 / 1			
reaction time	0.138	interval		4.13	4.30	4.37	4.63		4.47	4.70	4.80	5.03	5.30	6.07			12.80	13.80	15.13
		velocity	7.38	8.47	8.14	8.01	7.56		7.83	7.45	7.29	6.96	6.60	6.59	7.42		8.20	7.61	6.94
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.5	179.5				
Petersen, Sara Slott (DEN) (1		time	6.43	10.73	15.06	19.46	23.96		28.56	33.30	38.16	43.26	48.40		54.33	7 / 2			
reaction time	0.157	interval		4.30	4.33	4.40	4.50		4.60	4.74	4.86	5.10	5.14	5.93			13.03	13.84	15.10
		velocity	7.00	8.14	8.08	7.95	7.78		7.61	7.38	7.20	6.86	6.81	6.75	7.36		8.06	7.59	6.95
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Nel, Wenda (RSA) (1988)		time	6.33	10.56	14.83	19.23	23.83		28.40	33.13	37.96	43.03	48.26		54.47	8 / 3			
reaction time	0.182	interval		4.23	4.27	4.40	4.60		4.57	4.73	4.83	5.07	5.23	6.21			12.90	13.90	15.13
		velocity	7.11	8.27	8.20	7.95	7.61		7.66	7.40	7.25	6.90	6.69	6.44	7.34		8.14	7.55	6.94
H1 lead leg	L	strides	23	15	15	15	16		16	17	17	17	17	21.5	189.5				
Doyle, Eilidh (GBR) (1987)		time	6.36	10.60	14.80	19.00	23.40		27.96	32.73	37.67	42.73	48.10		54.70	4 / 4			
reaction time	0.162	interval		4.24	4.20	4.20	4.40		4.56	4.77	4.94	5.06	5.37	6.60			12.64	13.73	15.37
		velocity	7.08	8.25	8.33	8.33	7.95		7.68	7.34	7.09	6.92	6.52	6.06	7.31		8.31	7.65	6.83
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	18	22	189				
Stepter, Jaide (USA) (1994)		time	6.26	10.43	14.63	18.93	23.43		28.16	33.03	38.03	43.30	48.70		54.96	3 / 5			
reaction time	0.146	interval		4.17	4.20	4.30	4.50		4.73	4.87	5.00	5.27	5.40	6.26			12.67	14.10	15.67
		velocity	7.19	8.39	8.33	8.14	7.78		7.40	7.19	7.00	6.64	6.48	6.39	7.28		8.29	7.45	6.70
H1 lead leg	L	strides	22	15	15	15	15		16	16	17	17	17	19.7	184.7				
Little, Shamier (USA) (1995)		time	6.33	10.50	14.66	18.90	23.36		27.93	32.73	37.56	42.53	48.16		55.01	5 / 6			
reaction time	0.263	interval		4.17	4.16	4.24	4.46		4.57	4.80	4.83	4.97	5.63	6.85			12.57	13.83	15.43

		velocity	7.11	8.39	8.41	8.25	7.85	7.66	7.29	7.25	7.04	6.22	5.84	7.27		8.35	7.59	6.80
H1 lead leg	R	strides	23	16	16	16	16	16	16	17	17	17	20.5	190.5				

2016 Herculis Meeting International d'Athlétisme (Monaco, MON) (TV Analysis)

FINAL date 15-Jul-16

Henson (2020) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Doyle, Eilidh (GBR) (1987)		time	6.40	10.53	14.78	18.97	23.33		27.80	32.57	37.47	42.60	47.90		54.09	3 / 1			
reaction time	0.163	interval		4.13	4.25	4.19	4.36		4.47	4.77	4.90	5.13	5.30	6.19	**PB**		12.57	13.60	15.33
		velocity	7.03	8.47	8.24	8.35	8.03		7.83	7.34	7.14	6.82	6.60	6.46	7.40		8.35	7.72	6.85
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	18	21.5	188.5				
Tate, Cassandra (USA) (1990		time	6.20	10.50		19.17	23.70		28.30		38.07	43.30	48.63		54.63	7 / 2			
reaction time	0.234	interval		4.30		8.67	4.53		4.60		9.77	5.23	5.33	6.00			12.97		
		velocity	7.26	8.14		8.07	7.73		7.61		7.16	6.69	6.57	6.67	7.32		8.10		
H1 lead leg	R	strides	22	15			15		15			16	17	19.5	119.5				
Petersen, Sara Slott (DEN) (1		time	6.37	10.63		19.37	23.83		28.40		38.13	43.30	48.67		54.81	6 / 3			
reaction time	0.154	interval		4.26		8.74	4.46		4.57		9.73	5.17	5.37	6.14			13.00		
		velocity	7.06	8.22		8.01	7.85		7.66		7.19	6.77	6.52	6.51	7.30		8.08		
H1 lead leg	R	strides	22	15			15		15			17	18	20.2	122.2				
Nel, Wenda (RSA) (1988)		time	6.37	10.50		19.33	23.97		28.57	33.37	38.33	43.40	48.67		54.93	2 / 4			
reaction time	0.206	interval		4.13		8.83	4.64		4.60	4.80	4.96	5.07	5.27	6.26			12.96	14.04	15.30
		velocity	7.06	8.47		7.93	7.54		7.61	7.29	7.06	6.90	6.64	6.39	7.28		8.10	7.48	6.86
H1 lead leg	L	strides	23	15			16		16	17	17	17	17	21.5	159.5				
Sprunger, Leá (SUI) (1990)		time	6.47	10.83		19.57	24.13		28.87		38.77	43.97	49.43		55.42	8 / 5			
reaction time	0.133	interval		4.36		8.74	4.56		4.74		9.90	5.20	5.46	5.99			13.10		
		velocity	6.96	8.03		8.01	7.68		7.38		7.07	6.73	6.41	6.68	7.22		8.02		
H1 lead leg	R	strides	21	15			15		15			15	17	18.5	116.5				
Little, Shamier (USA) (1995)		time	6.33	10.43	14.80	19.27	23.77		28.60	33.47	38.57	43.93	49.40		55.73	5 / 6			
reaction time	0.243	interval		4.10	4.37	4.47	4.50		4.83	4.87	5.10	5.36	5.47	6.33			12.94	14.20	15.93
		velocity	7.11	8.54	8.01	7.83	7.78		7.25	7.19	6.86	6.53	6.40	6.32	7.18		8.11	7.39	6.59
H1 lead leg	L	strides	24	15	15	15	15		16	16	16	17	17	20	186				
Anacharsis, Phara (FRA) (19		time	6.60	10.77		19.40	23.87		28.47		38.37	43.87	49.50		56.20	1 / 7			
reaction time	0.183	interval		4.17		8.63	4.47		4.60		9.90	5.50	5.63	6.70			12.80		
		velocity	6.82	8.39		8.11	7.83		7.61		7.07	6.36	6.22	5.97	7.12		8.20		
H1 lead leg	L	strides		15			15		15			17	17	20	99				
Spencer, Ashley (USA) (1993		time	6.47	10.77	15.07	19.73	24.43		29.10	33.93	38.90	44.07	49.93		56.46	4 / 8			
reaction time	0.167	interval		4.30	4.30	4.66	4.70		4.67	4.83	4.97	5.17	5.86	6.53			13.26	14.20	16.00
		velocity	6.96	8.14	8.14	7.51	7.45		7.49	7.25	7.04	6.77	5.97	6.13	7.08		7.92	7.39	6.56
H1 lead leg	L	strides	22	15	14	15	15		15	15	15	15	17	18.7	176.7				

2016 USA Olympic Trials (Eugene, OR) (TV Analysis)

FINAL date 10-Jul-16

Henson (2020) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.17	10.18	14.35	18.68	23.15		27.56	32.13	36.80	41.74	46.88		52.88	6 / 1			
reaction time	0.275	interval		4.01	4.17	4.33	4.47		4.41	4.57	4.67	4.94	5.14	6.00	**PB**		12.51	13.45	14.75
		velocity	7.29	8.73	8.39	8.08	7.83		7.94	7.66	7.49	7.09	6.81	6.67	7.56		8.39	7.81	7.12
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Spencer, Ashley (USA) (1993		time	6.50	10.81	15.05	19.58	24.02		28.63	33.27	38.00	42.88	48.15		54.02	8 / 2			
reaction time	0.228	interval		4.31	4.24	4.53	4.44		4.61	4.64	4.73	4.88	5.27	5.87	**PB**		13.08	13.69	14.88
		velocity	6.92	8.12	8.25	7.73	7.88		7.59	7.54	7.40	7.17	6.64	6.81	7.40		8.03	7.67	7.06
H1 lead leg	L	strides	22	15	14	15	14		15	15	15	15	16	18.5	174.5				
McLaughlin, Sydney (USA) (		time	6.47	10.64	14.95	19.28	23.76		28.36	33.03	37.84	42.91	48.08		54.15	5 / 3			
reaction time	0.371	interval		4.17	4.31	4.33	4.48		4.60	4.67	4.81	5.07	5.17	6.07	**WJR WYB PB**		12.81	13.75	15.05
		velocity	6.96	8.39	8.12	8.08	7.81		7.61	7.49	7.28	6.90	6.77	6.59	7.39		8.20	7.64	6.98
H1 lead leg	R	strides	22	15	14	14	15		15	15	15	16	16	19.7	176.7				
Carter, Kori (USA) (1992)		time	6.47	10.61	14.88	19.12	23.46		28.03	32.73	37.64	42.81	48.18		54.47	3 / 4			
reaction time	0.192	interval		4.14	4.27	4.24	4.34		4.57	4.70	4.91	5.17	5.37	6.29			12.65	13.61	15.45
		velocity	6.96	8.45	8.20	8.25	8.06		7.66	7.45	7.13	6.77	6.52	6.36	7.34		8.30	7.71	6.80
H1 lead leg	L	strides	24	15	15	15	15		16	16	16	17	17	21	187				
Tate, Cassandra (USA) (1990		time	6.37	10.51	14.82	19.18	23.62		28.09	32.76	37.70	42.87	48.25		54.60	1 / 5			
reaction time	0.300	interval		4.14	4.31	4.36	4.44		4.47	4.67	4.94	5.17	5.38	6.35			12.81	13.58	15.49
		velocity	7.06	8.45	8.12	8.03	7.88		7.83	7.49	7.09	6.77	6.51	6.30	7.33		8.20	7.73	6.78
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Franklin, Autumne (USA) (1		time	6.54	10.78	14.98	19.32	23.66		28.23	33.03	37.97	43.14	48.48		54.65	4 / 6			
reaction time	0.172	interval		4.24	4.20	4.34	4.34		4.57	4.80	4.94	5.17	5.34	6.17	**PB**		12.78	13.71	15.45
		velocity	6.88	8.25	8.33	8.06	8.06		7.66	7.29	7.09	6.77	6.55	6.48	7.32		8.22	7.66	6.80
H1 lead leg	R	strides	24	16	16	16	16		16	17	17	18	18	21.5	195.5				

Stepter, Jaide (USA) (1994)		time	6.64	10.88	15.21	19.55	23.99	28.66	33.43	38.40	43.54	48.81		54.95	2 / 7			
reaction time	0.340	interval		4.24	4.33	4.34	4.44	4.67	4.77	4.97	5.14	5.27	6.14	PB		12.91	13.88	15.38
		velocity	6.78	8.25	8.08	8.06	7.88	7.49	7.34	7.04	6.81	6.64	6.51	7.28		8.13	7.56	6.83
H1 lead leg	L	strides	22	15	15	15	15	16	16	17	17	17	19.7	184.7				
Brown, T'erea (USA) (1989)		time	6.30	10.41	14.58	18.92	23.39	28.06	32.97	37.97	43.21	48.88		56.29	7 / 8			
reaction time	0.243	interval		4.11	4.17	4.34	4.47	4.67	4.91	5.00	5.24	5.67	7.41			12.62	14.05	15.91
		velocity	7.14	8.52	8.39	8.06	7.83	7.49	7.13	7.00	6.68	6.17	5.40	7.11		8.32	7.47	6.60
H1 lead leg	L	strides	23	15	15	15	15	15	17	17	17	18		167				

Semi-Final 2

date 08-Jul-16

Henson (2020) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Muhammad, Dalilah (USA) (		time	6.10	10.08	14.35	18.72	23.22		27.79	32.56	37.50	42.67	47.91		54.14	6 / 1			
reaction time		interval		3.98	4.27	4.37	4.50		4.57	4.77	4.94	5.17	5.24	6.23			12.62	13.84	15.35
		velocity	7.38	8.79	8.20	8.01	7.78		7.66	7.34	7.09	6.77	6.68	6.42	7.39		8.32	7.59	6.84
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.7	179.7				

2016 Japanese National Championships (Nagoya, JPN)

FINAL

date 26-Jun-16

Morioka (2016) - race pattern of top 400m hurdlers in japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.67	11.02	15.56	20.23	25.10		30.04	35.16	40.33	45.51	50.72		56.62	5 / 2			
reaction time	0.176	interval		4.35	4.54	4.67	4.87		4.94	5.12	5.17	5.18	5.21	5.90			13.56	14.93	15.56
		velocity	6.75	8.05	7.71	7.49	7.19		7.09	6.84	6.77	6.76	6.72	6.78	7.06		7.74	7.03	6.75
H1 lead leg		strides		16	16	16	16		16	17	17	17	17		148				

2016 Birmingham Diamond League (Birmingham, GBR) (TV Analysis

FINAL

date 05-Jun-16

Henson (2020) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tate, Cassandra (USA) (1990		time	6.33	10.47	14.73	19.10	23.60		28.33	33.10	38.03	43.23	48.60		54.57	4 / 1			
reaction time	0.207	interval		4.14	4.26	4.37	4.50		4.73	4.77	4.93	5.20	5.37	5.97			12.77	14.00	15.50
		velocity	7.11	8.45	8.22	8.01	7.78		7.40	7.34	7.09	6.74	6.52	6.70	7.33		8.22	7.50	6.77
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	19.7	179.7				
Doyle, Eilidh (GBR) (1987)		time	6.47	10.60	14.83	19.10	23.50		28.20	32.97	37.90	43.07	48.37		54.57	5 / 2			
reaction time	0.171	interval		4.13	4.23	4.27	4.40		4.70	4.77	4.93	5.17	5.30	6.20			12.63	13.87	15.40
		velocity	6.96	8.47	8.27	8.20	7.95		7.45	7.34	7.10	6.77	6.60	6.45	7.33		8.31	7.57	6.82
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	17	21.7	187.7				
Moline, Georganne (USA) (1		time	6.47	10.60	14.90	19.40	23.90		28.57	33.27	38.27	43.40	48.63		54.63	7 / 3			
reaction time	0.214	interval		4.13	4.30	4.50	4.50		4.67	4.70	5.00	5.13	5.23	6.00			12.93	13.87	15.36
		velocity	6.96	8.47	8.14	7.78	7.78		7.49	7.45	7.00	6.82	6.69	6.67	7.32		8.12	7.57	6.84
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Muhammad, Dalilah (USA) (		time	6.27	10.40	14.70	19.20	23.83		28.43	33.17	38.10	43.23	48.53		54.75	3 / 4			
reaction time	0.131	interval		4.13	4.30	4.50	4.63		4.60	4.74	4.93	5.13	5.30	6.22			12.93	13.97	15.36
		velocity	7.18	8.47	8.14	7.78	7.56		7.61	7.38	7.10	6.82	6.60	6.43	7.31		8.12	7.52	6.84
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	20	182				
Adekoya, Kemi (BRN) (1993)		time	6.43	10.63	15.00	19.37	23.87		28.67	33.57	38.70	43.97	49.27		55.28	6 / 5			
reaction time	0.195	interval		4.20	4.37	4.37	4.50		4.80	4.90	5.13	5.27	5.30	6.01			12.94	14.20	15.70
		velocity	7.00	8.33	8.01	8.01	7.78		7.29	7.14	6.82	6.64	6.60	6.66	7.24		8.11	7.39	6.69
H1 lead leg	R	strides	24	15	16	16	16		16	16	17	17	17	20	190				
Linkiewicz, Joanna (POL) (19		time	6.67	11.03	15.47	20.00	24.73		29.63	34.43	39.43	44.40	49.47		55.41	8 / 6			
reaction time	0.165	interval		4.36	4.44	4.53	4.73		4.90	4.80	5.00	4.97	5.07	5.94			13.33	14.43	15.04
		velocity	6.75	8.03	7.88	7.73	7.40		7.14	7.29	7.00	7.04	6.90	6.73	7.22		7.88	7.28	6.98
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	17	17		173				
Spencer, Kaliese (JAM) (1987		time	6.57	10.83	15.37	19.90	24.60		29.43	34.23	39.40	44.63	50.00		55.96	2 / 7			
reaction time	0.157	interval		4.26	4.54	4.53	4.70		4.83	4.80	5.17	5.23	5.37	5.96			13.33	14.33	15.77
		velocity	6.85	8.22	7.71	7.73	7.45		7.25	7.29	6.77	6.69	6.52	6.71	7.15		7.88	7.33	6.66
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16		160				
Rosolová, Denisa (CZE) (198		time		10.83	15.20	19.57	24.07		28.80	33.77	38.87	44.20	49.83		56.50	1 / 8			
reaction time	0.152	interval			4.37	4.37	4.50		4.73	4.97	5.10	5.33	5.63	6.67				14.20	16.06
		velocity		7.39	8.01	8.01	7.78		7.40	7.04	6.86	6.57	6.22	6.00	7.08			7.39	6.54
H1 lead leg		strides			15	15	15		15	16	16	17	17		126				

2016 Golden Gala Pietro Mennea (Roma, ITA) (TV Analysis)

FINAL

date 02-Jun-16

Henson (2020) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Jeneive (JAM) (1993		time	6.52	10.68	14.92	19.28	23.72		28.16	32.72	37.48	42.56	47.80		53.96	7 / 1			
reaction time	0.180	interval		4.16	4.24	4.36	4.44		4.44	4.56	4.76	5.08	5.24	6.16	PB		12.76	13.44	15.08
		velocity	6.90	8.41	8.25	8.03	7.88		7.88	7.68	7.35	6.89	6.68	6.49	7.41		8.23	7.81	6.96
H1 lead leg	R	strides	22	14	14	15	15			15	15		16	19.5	145.5				
Nel, Wenda (RSA) (1988)		time	6.40	10.72		19.64	24.24		28.80	33.52	38.36	43.32	48.52		54.61	9 / 2			
reaction time	0.188	interval		4.32		8.92	4.60		4.56	4.72	4.84	4.96	5.20	6.09			13.24	13.88	15.00
		velocity	7.03	8.10		7.85	7.61		7.68	7.42	7.23	7.06	6.73	6.57	7.32		7.93	7.56	7.00

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	L	strides	23	16			16			17	17		17	21	127				
Doyle, Eilidh (GBR) (1987)		time	6.32	10.48	14.68	18.96	23.40		28.12	33.00	38.00	43.08	48.48		54.81	6 / 3			
reaction time	0.154	interval		4.16	4.20	4.28	4.44		4.72	4.88	5.00	5.08	5.40	6.33			12.64	14.04	15.48
		velocity	7.12	8.41	8.33	8.18	7.88		7.42	7.17	7.00	6.89	6.48	6.32	7.30		8.31	7.48	6.78
H1 lead leg	L	strides	23	15	15	15	16				17		18	20.7	139.7				
Tate, Cassandra (USA) (1990		time	6.20	10.36		19.24	23.80			33.32	38.36	43.60	49.08		55.35	5 / 4			
reaction time	0.219	interval		4.16		8.88	4.56			9.52	5.04	5.24	5.48	6.27			13.04	14.08	15.76
		velocity	7.26	8.41		7.88	7.68			7.35	6.94	6.68	6.39	6.38	7.23		8.05	7.46	6.66
H1 lead leg	R	strides	22	15			15				15		16	20	103				
Adekoya, Kemi (BRN) (1993)		time	6.28	10.48		19.00	23.44		28.12	33.00	38.08	43.44	49.04		55.48	8 / 5			
reaction time	0.176	interval		4.20		8.52	4.44		4.68	4.88	5.08	5.36	5.60	6.44			12.72	14.00	16.04
		velocity	7.17	8.33		8.22	7.88		7.48	7.17	6.89	6.53	6.25	6.21	7.21		8.25	7.50	6.55
H1 lead leg	R	strides	24	16			16			17	17		18	21	129				
Spencer, Kaliese (JAM) (1987		time	6.40	10.60		19.48	24.00			33.48	38.56	43.80	49.20		55.51	3 / 6			
reaction time	0.158	interval		4.20		8.88	4.52			9.48	5.08	5.24	5.40	6.31			13.08	14.00	15.72
		velocity	7.03	8.33		7.88	7.74			7.38	6.89	6.68	6.48	6.34	7.21		8.03	7.50	6.68
H1 lead leg	L	strides	22	14			15				16		16	19	102				

2016 Meeting International Mohammed VI D'Athletisme (Rabat, MAR) (TV Analysis)

FINAL date 22-May-16

Henson (2020) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Russell, Jeneive (JAM) (1993		time	6.44	10.60	14.84	19.12	23.52		28.00	32.64	37.60	42.60	47.88		54.16	4 / 1			
reaction time	0.139	interval		4.16	4.24	4.28	4.40		4.48	4.64	4.96	5.00	5.28	6.28			12.68	13.52	15.24
		velocity	6.99	8.41	8.25	8.18	7.95		7.81	7.54	7.06	7.00	6.63	6.37	7.39		8.28	7.77	6.89
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Tate, Cassandra (USA) (1990		time	6.20	10.52	14.76	19.16	23.60		28.16	32.92	37.96	43.12	48.56		54.69	3 / 2			
reaction time	0.209	interval		4.32	4.24	4.40	4.44		4.56	4.76	5.04	5.16	5.44	6.13			12.96	13.76	15.64
		velocity	7.26	8.10	8.25	7.95	7.88		7.68	7.35	6.94	6.78	6.43	6.53	7.31		8.10	7.63	6.71
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Nel, Wenda (RSA) (1988)		time	6.32	10.64	14.88	19.24	23.76		28.28	33.00	37.88	43.08	48.48		54.88	5 / 3			
reaction time	0.198	interval		4.32	4.24	4.36	4.52		4.52	4.72	4.88	5.20	5.40	6.40			12.92	13.76	15.48
		velocity	7.12	8.10	8.25	8.03	7.74		7.74	7.42	7.17	6.73	6.48	6.25	7.29		8.13	7.63	6.78
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	18	18	21.5	194.5				
Titimets, Anna (UKR) (1989)		time	6.48	10.76	15.08	19.40	23.80		28.32	33.00	38.04	43.36	48.88		55.10	7 / 4			
reaction time	0.208	interval		4.28	4.32	4.32	4.40		4.52	4.68	5.04	5.32	5.52	6.22			12.92	13.60	15.88
		velocity	6.94	8.18	8.10	8.10	7.95		7.74	7.48	6.94	6.58	6.34	6.43	7.26		8.13	7.72	6.61
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	17	17	20	182				
Adekoya, Kemi (BRN) (1993)		time	6.40	10.76	15.12	19.56	24.04		28.72	33.60	38.72	43.92	49.28		55.33	6 / 5			
reaction time	0.180	interval		4.36	4.36	4.44	4.48		4.68	4.88	5.12	5.20	5.36	6.05			13.16	14.04	15.68
		velocity	7.03	8.03	8.03	7.88	7.81		7.48	7.17	6.84	6.73	6.53	6.61	7.23		7.98	7.48	6.70
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	17	17	20.2	192.2				
Ankiewicz, Emilia (POL) (199		time	6.64	11.12	15.72	20.36	25.12		29.96	35.00	40.32	45.64	51.08		57.25	2 / 6			
reaction time	0.148	interval		4.48	4.60	4.64	4.76		4.84	5.04	5.32	5.32	5.44	6.17			13.72	14.64	16.08
		velocity	6.78	7.81	7.61	7.54	7.35		7.23	6.94	6.58	6.58	6.43	6.48	6.99		7.65	7.17	6.53
H1 lead leg	L	strides	23	16	16	16	16		16	16	17	17	17	20.5	190.5				

2016 Seiko Golden Grand Prix (Kawasaki, JPN)

FINAL date 08-May-16

Morioka (2016) - race pattern of top 400m hurdlers in japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.63	10.93	15.38	19.93	24.65		29.50	34.51	39.62	44.83	50.07		56.14	4 / 2			
reaction time	0.176	interval		4.30	4.45	4.55	4.72		4.85	5.01	5.11	5.21	5.24	6.07			13.30	14.58	15.56
		velocity	6.79	8.14	7.87	7.69	7.42		7.22	6.99	6.85	6.72	6.68	6.59	7.13		7.89	7.20	6.75
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17	21	192				
Ishizuka, Haruko (JPN) (1997		time	6.55	10.74	15.04	19.41	24.18		29.20	34.31	39.50	45.01	50.62		56.75	7 / 3			
reaction time	0.210	interval		4.19	4.30	4.37	4.77		5.02	5.11	5.19	5.51	5.61	6.13	NJR / PB		12.86	14.90	16.31
		velocity	6.87	8.35	8.14	8.01	7.34		6.97	6.85	6.74	6.35	6.24	6.53	7.05		8.16	7.05	6.44
H1 lead leg	R	strides	23	15	15	15	16		16	17	17	18	18	21	191				

2016 Hürden-und Sprintmeeting (Basel, SUI) *(300m Hurdles)*

FINAL date 07-May-16

Swiss Athletics (2016) - sprint and hurdle analysis

			H1	H2	H3	H4	H5	200m	H6	H7	Run-In	Official Time	Lane / Place	H1-H4	H4-H7
Sprunger, Léa (SUI) (1990)		time	6.66	10.96	15.40	20.00	24.76		29.52	34.32		40.23	/ 1		
reaction time		interval		4.30	4.44	4.60	4.76		4.76	4.80	5.91			13.34	14.32
		velocity	6.76	8.14	7.88	7.61	7.35		7.35	7.29	7.61	7.46		7.87	7.33
H1 lead leg		strides													
Schürmann, Robine (SUI) (1		time	6.74	11.16	15.70	20.42	25.28		30.22	35.14		41.31	/ 2		
reaction time		interval		4.42	4.54	4.72	4.86		4.94	4.92	6.17			13.68	14.72
		velocity	6.68	7.92	7.71	7.42	7.20		7.09	7.11	7.29	7.26		7.68	7.13

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

	H1 lead leg	strides																	
Fontanive, Petra (SUI) (1988)		time	6.70	11.08	15.56	20.20	25.16		30.24	35.14				41.38	/ 3				
	reaction time	interval		4.38	4.48	4.64	4.96		5.08	4.90			6.24				13.50	14.94	
		velocity	6.72	7.99	7.81	7.54	7.06		6.89	7.14			7.21	7.25			7.78	7.03	
	H1 lead leg	strides																	

2016 Doha Diamond League (Doha, QAT) (TV Analysis)

FINAL date 06-May-16

Henson (2021) - Athlete First: 2016 year end hurdle report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Doyle, Eilidh (GBR) (1987)		time	6.40	10.56	14.84	19.12	23.56		28.24	33.00	37.96	43.04	48.32		54.53	3 / 1			
	reaction time 0.191	interval		4.16	4.28	4.28	4.44		4.68	4.76	4.96	5.08	5.28	6.21			12.72	13.88	15.32
		velocity	7.03	8.41	8.18	8.18	7.88		7.48	7.35	7.06	6.89	6.63	6.44	7.34		8.25	7.56	6.85
	H1 lead leg L	strides	23	15	15	15	15		16	16	17	17	17	21.2	187.2				
Adekoya, Kemi (BRN) (1993)		time	6.52	10.84	15.16	19.56	24.12		28.76	33.56	38.64	43.88	49.16		54.87	2 / 2			
	reaction time 0.178	interval		4.32	4.32	4.40	4.56		4.64	4.80	5.08	5.24	5.28	5.71			13.04	14.00	15.60
		velocity	6.90	8.10	8.10	7.95	7.68		7.54	7.29	6.89	6.68	6.63	7.01	7.29		8.05	7.50	6.73
	H1 lead leg L	strides	24	15	15	15	15		15	15	17	17	17	19.5	184.5				
Spencer, Kaliese (JAM) (1987		time	6.44	10.72	15.16	19.64	24.24		28.96	33.72	38.56	43.72	48.96		55.02	4 / 3			
	reaction time 0.144	interval		4.28	4.44	4.48	4.60		4.72	4.76	4.84	5.16	5.24	6.06			13.20	14.08	15.24
		velocity	6.99	8.18	7.88	7.81	7.61		7.42	7.35	7.23	6.78	6.68	6.60	7.27		7.95	7.46	6.89
	H1 lead leg L	strides	22	15	15	15	15		15	15	15	16	16	18.7	177.7				
Nel, Wenda (RSA) (1988)		time	6.24	10.44	14.76	19.12	23.72		28.48	33.36	38.36	43.56	48.92		55.17	6 / 4			
	reaction time 0.184	interval		4.20	4.32	4.36	4.60		4.76	4.88	5.00	5.20	5.36	6.25			12.88	14.24	15.56
		velocity	7.21	8.33	8.10	8.03	7.61		7.35	7.17	7.00	6.73	6.53	6.40	7.25		8.15	7.37	6.75
	H1 lead leg L	strides	23	16	16	16	16		17	17	17	18	18	21.5	195.5				
Tate, Cassandra (USA) (1990		time	6.32	10.56	14.92	19.36	23.96		28.72	33.60	38.76	44.00	49.40		55.57	5 / 5			
	reaction time 0.230	interval		4.24	4.36	4.44	4.60		4.76	4.88	5.16	5.24	5.40	6.17			13.04	14.24	15.80
		velocity	7.12	8.25	8.03	7.88	7.61		7.35	7.17	6.78	6.68	6.48	6.48	7.20		8.05	7.37	6.65
	H1 lead leg R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Beesley, Meghan (GBR) (198		time	6.32	10.52	14.84	19.28	23.88		28.72	33.64	38.68	43.96	49.40		55.72	7 / 6			
	reaction time 0.166	interval		4.20	4.32	4.44	4.60		4.84	4.92	5.04	5.28	5.44	6.32			12.96	14.36	15.76
		velocity	7.12	8.33	8.10	7.88	7.61		7.23	7.11	6.94	6.63	6.43	6.33	7.18		8.10	7.31	6.66
	H1 lead leg L	strides	24	16	16	16	16		17	17	17	18	18	22	197				
Williams, Tiffany (USA) (198		time	6.52	10.68	15.00	19.44	24.08		28.80	33.68	38.72	44.00	49.68		56.57	8 / 7			
	reaction time 0.225	interval		4.16	4.32	4.44	4.64		4.72	4.88	5.04	5.28	5.68	6.89			12.92	14.24	16.00
		velocity	6.90	8.41	8.10	7.88	7.54		7.42	7.17	6.94	6.63	6.16	5.81	7.07		8.13	7.37	6.56
	H1 lead leg L	strides	24	15	15	15	16		16	17	17	17	18	22	192				
Hayes, Jernail (USA) (1988)		time	6.44	10.88	15.40	20.12	24.96		30.00	35.32	40.84	46.72			60.48	1 / 8			
	reaction time 0.146	interval		4.44	4.52	4.72	4.84		5.04	5.32	5.52	5.88					13.68	15.20	
		velocity	6.99	7.88	7.74	7.42	7.23		6.94	6.58	6.34	5.95			6.61		7.68	6.91	
	H1 lead leg L	strides	23	16	16	16	16		17	17	17	18			156				

2016 Shizuoka International Athletics Meeting (Fukuroi, JPN)

FINAL date 03-May-16

Morioka (2016) - race pattern of top 400m hurdlers in japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.56	10.88	15.42	20.06	24.83		29.63	34.84	40.18	45.62	51.39		57.91	/ 2			
	reaction time	interval		4.32	4.54	4.64	4.77		4.80	5.21	5.34	5.44	5.77	6.52			13.50	14.78	16.55
		velocity	6.86	8.10	7.71	7.54	7.34		7.29	6.72	6.55	6.43	6.07	6.13	6.91		7.78	7.10	6.34
	H1 lead leg	strides		16	16	16	16		16	17	17	17	18		149				

2015 Japanese National Junior Championships (Nagoya, JPN)

FINAL date 18-Oct-15

Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kodama, Saki (JPN) (1997)		time	6.82	11.42	16.06	20.85	25.87		31.01	36.22	41.46	47.13	52.70		58.91	/ 1			
	reaction time	interval		4.60	4.64	4.79	5.02		5.14	5.21	5.24	5.67	5.57	6.21	PB		14.03	15.37	16.48
		velocity	6.60	7.61	7.54	7.31	6.97		6.81	6.72	6.68	6.17	6.28	6.44	6.79		7.48	6.83	6.37
	H1 lead leg	strides		16	16	16	17		17	17	17	18	18		152				
Arashima, Yuri (JPN) (1997)		time	6.90	11.37	15.95	20.62	25.41		30.43	35.70	41.11	46.68	52.45		58.97	/ 2			
	reaction time	interval		4.47	4.58	4.67	4.79		5.02	5.27	5.41	5.57	5.77	6.52			13.72	15.08	16.75
		velocity	6.52	7.83	7.64	7.49	7.31		6.97	6.64	6.47	6.28	6.07	6.13	6.78		7.65	6.96	6.27
	H1 lead leg	strides		15	15	15	15		17	17	17	17	17		145				

2015 Japanese National Youth Championships (Nagoya, JPN)

FINAL date 18-Oct-15

Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Murakami, Mizuki (JPN) (199		time	6.88	11.38	16.05	20.99	25.96		31.13	36.39	41.68	47.12	52.63		58.87	/ 1			
	reaction time	interval		4.50	4.67	4.94	4.97		5.17	5.26	5.29	5.44	5.51	6.24	PB		14.11	15.40	16.24
		velocity	6.54	7.78	7.49	7.09	7.04		6.77	6.65	6.62	6.43	6.35	6.41	6.79		7.44	6.82	6.47
	H1 lead leg	strides		15	15	16	16		16	17	17	17	17		146				

2015 IAAF World Championships (Beijing, CHN) (TV Analysis)

FINAL date 26-Aug-15

Henson (2021) - Athlete First: major championships report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hejnová, Zuzana (CZE) (1986		time	6.40	10.52	14.72	19.00	23.36		27.88	32.48	37.24	42.28	47.40		53.50	5 / 1			
reaction time	0.153	interval		4.12	4.20	4.28	4.36		4.52	4.60	4.76	5.04	5.12	6.10			12.60	13.48	14.92
		velocity	7.03	8.50	8.33	8.18	8.03		7.74	7.61	7.35	6.94	6.84	6.56	7.48		8.33	7.79	7.04
H1 lead leg	R	strides		15	15	15	15			15	16	16	16	19.7	142.7				
Little, Shamier (USA) (1986)		time	6.40	10.56	14.76	19.12	23.56			32.72	37.64	42.68	47.96		53.94	2 / 2			
reaction time	0.227	interval		4.16	4.20	4.36	4.44			9.16	4.92	5.04	5.28	5.98			12.72	13.60	15.24
		velocity	7.03	8.41	8.33	8.03	7.88			7.64	7.11	6.94	6.63	6.69	7.42		8.25	7.72	6.89
H1 lead leg	R	strides		15		15	15				16	16	17	20	114				
Tate, Cassandra (USA) (1990		time	6.16	10.28	14.52	18.88	23.36		27.96	32.72	37.60	42.68	48.00		54.02	6 / 3			
reaction time	0.189	interval		4.12	4.24	4.36	4.48		4.60	4.76	4.88	5.08	5.32	6.02			12.72	13.84	15.28
		velocity	7.31	8.50	8.25	8.03	7.81		7.61	7.35	7.17	6.89	6.58	6.64	7.40		8.25	7.59	6.87
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19.7	178.7				
Petersen, Sara Slott (DEN) (1		time	6.48		14.96	19.32	23.76		28.24	32.92	37.72	42.88	48.16		54.20	4 / 4			
reaction time	0.155	interval			8.48	4.36	4.44		4.48	4.68	4.80	5.16	5.28	6.04			12.84	13.60	15.24
		velocity	6.94		8.25	8.03	7.88		7.81	7.48	7.29	6.78	6.63	6.62	7.38		8.18	7.72	6.89
H1 lead leg	R	strides		15		15	15			15	15	17	17	20	129				
Russell, Janieve (JAM) (1993		time	6.44	10.56	14.80	19.08	23.52		28.12	32.92	37.84	43.00			54.64	9 / 5			
reaction time	0.165	interval		4.12	4.24	4.28	4.44		4.60	4.80	4.92	5.16			PB		12.64	13.84	
		velocity	6.99	8.50	8.25	8.18	7.88		7.61	7.29	7.11	6.78			7.32		8.31	7.59	
H1 lead leg	R	strides		15	15	15	15		15	15	16	16			122				
Child, Eilidh (GBR) (1987)		time	6.40	10.52	14.80	19.08	23.44			32.96	38.04	43.24	48.60		54.78	3 / 6			
reaction time	0.161	interval		4.12	4.28	4.28	4.36			9.52	5.08	5.20	5.36	6.18			12.68	13.88	15.64
		velocity	7.03	8.50	8.18	8.18	8.03			7.35	6.89	6.73	6.53	6.47	7.30		8.28	7.56	6.71
H1 lead leg	L	strides		15		15	15				17	18	18		98				
Nel, Wenda (RSA) (1988)		time	6.28	10.48	14.68	19.00	23.52		28.28	33.12	38.08	43.20			54.94	8 / 7			
reaction time	0.211	interval		4.20	4.20	4.32	4.52		4.76	4.84	4.96	5.12					12.72	14.12	
		velocity	7.17	8.33	8.33	8.10	7.74		7.35	7.23	7.06	6.84			7.28		8.25	7.44	
H1 lead leg	L	strides		16	15	15	16		16	17	17	17			129				
Spencer, Kaliese (JAM) (1987		time	6.44	10.68	15.12	19.48	24.00		28.60	33.36	38.24	43.48			55.47	7 / 8			
reaction time	0.196	interval		4.24	4.44	4.36	4.52		4.60	4.76	4.88	5.24					13.04	13.88	
		velocity	6.99	8.25	7.88	8.03	7.74		7.61	7.35	7.17	6.68			7.21		8.05	7.56	
H1 lead leg	L	strides		15	15	15	15		15	15	15	16			121				

2015 Japanese National High School Championships (Wakayama, JPN)

FINAL date 31-Jul-15

Enomoto (2015) - 68th high school championships: JAF scientific committee - biomechanics data collection

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ishizuka, Haruko (JPN) (1997		time	6.67	11.01	15.52	20.07	24.79		29.81	34.92	40.16	45.50	50.97		57.09	4 / 1			
reaction time	0.158	interval		4.34	4.51	4.55	4.72		5.02	5.11	5.24	5.34	5.47	6.12	NJR / PB		13.40	14.85	16.05
		velocity	6.75	8.06	7.76	7.69	7.42		6.97	6.85	6.68	6.55	6.40	6.54	7.01		7.84	7.07	6.54
H1 lead leg		strides		15	15	15	15		16	16	17	17	17		143				
Murakami, Mizuki (JPN) (199		time	6.84	11.33	16.00	20.80	25.83		30.88	36.25	41.61	46.95	52.50		58.95	2 / 2			
reaction time		interval		4.49	4.67	4.80	5.03		5.05	5.37	5.36	5.34	5.55	6.45	PB		13.96	15.45	16.25
		velocity	6.58	7.80	7.49	7.29	6.96		6.93	6.52	6.53	6.55	6.31	6.20	6.79		7.52	6.80	6.46
H1 lead leg		strides		15	15	15	16		16	17	17	17	17		145				
Arashima, Yuri (JPN) (1997)		time	6.71	11.08	15.53	20.12	24.86		29.95	35.24	40.66	46.35	52.24		58.99	6 / 3			
reaction time		interval		4.37	4.45	4.59	4.74		5.09	5.29	5.42	5.69	5.89	6.75			13.41	15.12	17.00
		velocity	6.71	8.01	7.87	7.63	7.38		6.88	6.62	6.46	6.15	5.94	5.93	6.78		7.83	6.94	6.18
H1 lead leg		strides		15	15	15	15		17	17	17	17	17		145				
Nakagama, Sawako (JPN) (19		time	6.87	11.41	16.07	20.80	25.69		30.93	36.40	41.83	47.43	53.27		59.71	7 / 4			
reaction time		interval		4.54	4.66	4.73	4.89		5.24	5.47	5.43	5.60	5.84	6.44	PB		13.93	15.60	16.87
		velocity	6.55	7.71	7.51	7.40	7.16		6.68	6.40	6.45	6.25	5.99	6.21	6.70		7.54	6.73	6.22
H1 lead leg		strides		16	16	16	16		18	17	17	17	18		151				
Kamada, Saki (JPN) (1997)		time	6.81	11.44	16.22	20.95	25.89		31.21	36.50	42.09	47.65	53.52		60.04	8 / 5			
reaction time		interval		4.63	4.78	4.73	4.94		5.32	5.29	5.59	5.56	5.87	6.52			14.14	15.55	17.02
		velocity	6.61	7.56	7.32	7.40	7.09		6.58	6.62	6.26	6.29	5.96	6.13	6.66		7.43	6.75	6.17
H1 lead leg		strides		17	17	17	17		18	18	18	18	19		159				
Koyama, Kana (JPN) (1998)		time	7.01	11.66	16.47	21.35	26.38		31.48	36.75	42.16	47.88	53.70		60.15	5 / 6			
reaction time		interval		4.65	4.81	4.88	5.03		5.10	5.27	5.41	5.72	5.82	6.45			14.34	15.40	16.95
		velocity	6.42	7.53	7.28	7.17	6.96		6.86	6.64	6.47	6.12	6.01	6.20	6.65		7.32	6.82	6.19
H1 lead leg		strides		17	17	17	17		17	17	17	18	18		155				
Iwata, Honoka (JPN) (1997)		time	6.92	11.53	16.35	21.27	26.34		31.40	36.72	42.19	47.83	53.75		60.40	3 / 7			
reaction time		interval		4.61	4.82	4.92	5.07		5.06	5.32	5.47	5.64	5.92	6.65			14.35	15.45	17.03

		velocity	6.50	7.59	7.26	7.11	6.90	6.92	6.58	6.40	6.21	5.91	6.02	6.62		7.32	6.80	6.17
H1 lead leg		strides		16	16	17	17	17	17	17	18	19		154				
Nakahara, Minami (JPN) (199		time	7.02	11.66	16.35	21.17	26.11	31.31	36.60	42.04	47.83	53.77		60.52	9 / 8			
reaction time		interval		4.64	4.69	4.82	4.94	5.20	5.29	5.44	5.79	5.94	6.75			14.15	15.43	17.17
		velocity	6.41	7.54	7.46	7.26	7.09	6.73	6.62	6.43	6.04	5.89	5.93	6.61		7.42	6.80	6.12
H1 lead leg		strides		17	17	17	17	17	17	17	17	19		155				

2015 Japanese National Championships (Niigata, JPN)

FINAL date 28-Jun-15

Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kira, Manami (JPN) (1991)		time	6.71	11.13	15.54	20.04	24.66		29.46	34.41	39.63	45.00	50.77		57.92	7 / 1			
reaction time	0.178	interval		4.42	4.41	4.50	4.62		4.80	4.95	5.22	5.37	5.77	7.15			13.33	14.37	16.36
		velocity	6.71	7.92	7.94	7.78	7.58		7.29	7.07	6.70	6.52	6.07	5.59	6.91		7.88	7.31	6.42
H1 lead leg	L	strides	23	15	15	15	15		16	16	17	17	18	22.7	189.7				

2015 Seiko Golden Grand Prix (Kawasaki, JPN)

FINAL date 10-May-15

Yasunori (2015) - race pattern analysis of the top 400m hurdlers in Japan

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kira, Manami (JPN) (1991)		time	6.66	11.00	15.39	19.89	24.49		29.36	34.48	39.75	45.21	51.20		57.73	4 / 2			
reaction time		interval		4.34	4.39	4.50	4.60		4.87	5.12	5.27	5.46	5.99	6.53			13.23	14.59	16.72
		velocity	6.76	8.06	7.97	7.78	7.61		7.19	6.84	6.64	6.41	5.84	6.13	6.93		7.94	7.20	6.28
H1 lead leg		strides		15	15	15	15		16	16	16	16	17	22	163				

2014 European Championships (Zurich, SUI)

Semi-Final 1 date 14-Aug-14

Incalza (2014) - FIDAL - https://www.youtube.com/watch?v=EnXI2yLcGsg&list=UU7691fXeyNFIMROfkJ-WWUg

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pedroso, Yadisleidis (ITA) (1		time	6.69	11.01	15.53	20.00	24.53	26.42	29.17	34.03	39.08	44.25	49.70		56.07	8 / 3			
reaction time	0.188	interval		4.32	4.52	4.47	4.53		4.64	4.86	5.05	5.17	5.45	6.37			13.31	14.03	15.67
		velocity	6.73	8.10	7.74	7.83	7.73	7.57	7.54	7.20	6.93	6.77	6.42	6.28	7.13		7.89	7.48	6.70
H1 lead leg	R	strides	25	16	16	16	16		16	16	17	17	18	21.5	194.5				

2014 Japanese National High School Championships (Kofu, JPN)

FINAL date 01-Aug-14

Yanagiya (2014) - research on athlete performance and technique- 2014 data book

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Arashima, Yuri (JPN) (1997)		time	6.77	11.19	15.66	20.18	24.92		30.03	35.35	40.79	46.41	52.17		58.76	/ 1			
reaction time		interval		4.42	4.47	4.52	4.74		5.11	5.32	5.44	5.62	5.76	6.59	PB		13.41	15.17	16.82
		velocity	6.65	7.92	7.83	7.74	7.38		6.85	6.58	6.43	6.23	6.08	6.07	6.81		7.83	6.92	6.24
H1 lead leg		strides		15	15	15	15		17	17	17	17	17		145				

2014 Japanese National Championships (Fukushima, JPN)

FINAL date 08-Jun-14

Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.61	10.95	15.49	20.01	24.71		29.41	34.38	39.47	44.68	50.02		56.39	4 / 1			
reaction time		interval		4.34	4.54	4.52	4.70		4.70	4.97	5.09	5.21	5.34	6.37			13.40	14.37	15.64
		velocity	6.81	8.06	7.71	7.74	7.45		7.45	7.04	6.88	6.72	6.55	6.28	7.09		7.84	7.31	6.71
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17	21.5	192.5				
Kira, Manami (JPN) (1991)		time	6.72	11.06	15.45	19.92	24.52		29.41	34.38	39.52	44.96	50.60		57.27	6 / 2			
reaction time		interval		4.34	4.39	4.47	4.60		4.89	4.97	5.14	5.44	5.64	6.67			13.20	14.46	16.22
		velocity	6.70	8.06	7.97	7.83	7.61		7.16	7.04	6.81	6.43	6.21	6.00	6.98		7.95	7.26	6.47
H1 lead leg	L	strides	23	15	15	15	15		16	17	17	17	18	22.2	190.2				

2014 Shizuoka International Athletics Meeting (Fukuroi, JPN)

A FINAL date 03-May-14

Yasunori (2014) - race pattern analysis of Japanese top 400m hurdlers for major domestic competitions

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.56	10.83	15.33	19.90	24.65		29.45	34.54	39.65	44.91	50.28		56.72	/ 1			
reaction time		interval		4.27	4.50	4.57	4.75		4.80	5.09	5.11	5.26	5.37	6.44			13.34	14.64	15.74
		velocity	6.86	8.20	7.78	7.66	7.37		7.29	6.88	6.85	6.65	6.52	6.21	7.05		7.87	7.17	6.67
H1 lead leg		strides		16	16	16	16		16	17	17	17	17		148				
Kira, Manami (JPN) (1991)		time	6.81	11.25	15.79	20.42	25.07		29.94	35.00	40.14	45.50	51.12		57.69	/ 2			
reaction time		interval		4.44	4.54	4.63	4.65		4.87	5.06	5.14	5.36	5.62	6.57			13.61	14.58	16.12
		velocity	6.61	7.88	7.71	7.56	7.53		7.19	6.92	6.81	6.53	6.23	6.09	6.93		7.71	7.20	6.51
H1 lead leg		strides		15	15	15	15		16	16	16	16	17		141				

2013 IAAF World Championships (Moscow, RUS) (TV Analysis)

FINAL date 15-Aug-13

Henson (2021) - Athlete First: major championships report

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hejnová, Zuzana (CZE) (198		time	6.34	10.42	14.57	18.73	23.04		27.42	31.96	36.73	41.69	46.73		52.83	3 / 1			
reaction time	0.149	interval		4.08	4.15	4.16	4.31		4.38	4.54	4.77	4.96	5.04	6.10			12.39	13.23	14.77
		velocity	7.10	8.58	8.43	8.41	8.12		7.99	7.71	7.34	7.06	6.94	6.56	7.57		8.47	7.94	7.11
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Muhammad, Dalilah (USA) (		time	6.11	10.23	14.28	18.69	23.04		27.54	32.19	37.11	42.23	47.65		54.09	6 / 2			
reaction time	0.165	interval		4.12	4.05	4.41	4.35		4.50	4.65	4.92	5.12	5.42	6.44			12.58	13.50	15.46
		velocity	7.36	8.50	8.64	7.94	8.05		7.78	7.53	7.11	6.84	6.46	6.21	7.40		8.35	7.78	6.79

H1 lead leg	R	strides	23	15	15	15	15	15	15	16	16	16	20.2	181.2				
Demus, Lashinda (USA) (198		time	6.00	9.96	14.15	18.54	22.93	27.31	31.92	36.77	42.04	47.58		54.27	4 / 3			
reaction time	0.156	interval		3.96	4.19	4.39	4.39	4.38	4.61	4.85	5.27	5.54	6.69			12.54	13.38	15.66
		velocity	7.50	8.84	8.35	7.97	7.97	7.99	7.59	7.22	6.64	6.32	5.98	7.37		8.37	7.85	6.70
H1 lead leg	R	strides	23	15	15	15	15	15	15	15	17	17	21	183				
Titimets, Anna (UKR) (1989)		time	6.46	10.77	15.04	19.38	23.93	28.61		38.35	43.46	48.77		54.72	7 / ~~4~~			
reaction time	0.215	interval		4.31	4.27	4.34	4.55	4.68		9.74	5.11	5.31	5.95	DQ		12.92		
		velocity	6.97	8.12	8.20	8.06	7.69	7.48		7.19	6.85	6.59	6.72	7.31		8.13		
H1 lead leg	L	strides	22	15	15	15	15	15	15		16	16	19.2	163.2				
Child, Eilidh (GBR) (1987)		time	6.31	10.38	14.65	19.08	23.58	28.19	33.08	38.08	43.23	48.61		54.86	8 / ~~5~~ 4			
reaction time	0.175	interval		4.07	4.27	4.43	4.50	4.61	4.89	5.00	5.15	5.38	6.25			12.77	14.00	15.53
		velocity	7.13	8.60	8.20	7.90	7.78	7.59	7.16	7.00	6.80	6.51	6.40	7.29		8.22	7.50	6.76
H1 lead leg	L	strides	23		16	16	16	17	17		17	18	21.2	161.2				
Ryzhykova, Anna (UKR) (19		time	6.34	10.58	14.88	19.19	23.84	28.65		38.61	43.77	49.00		55.01	1 / ~~6~~ 5			
reaction time	0.169	interval		4.24	4.30	4.31	4.65	4.81		9.96	5.16	5.23	6.01			12.85		
		velocity	7.10	8.25	8.14	8.12	7.53	7.28		7.03	6.78	6.69	6.66	7.27		8.17		
H1 lead leg	L	strides	21	14	14	14	14	15			15	15	19.2	141.2				
Shakes-Drayton, Perri (GBR)		time	6.15	10.19	14.34	18.61	23.04	27.69	32.54	37.65	43.00	48.65		56.25	5 / ~~7~~ 6			
reaction time	0.188	interval		4.04	4.15	4.27	4.43	4.65	4.85	5.11	5.35	5.65	7.60			12.46	13.93	16.11
		velocity	7.32	8.66	8.43	8.20	7.90	7.53	7.22	6.85	6.54	6.19	5.26	7.11		8.43	7.54	6.52
H1 lead leg	L	strides	24	16	16	16	16	17	17		18	18	23	181				
Wilson, Nickiesha (JAM) (19		time	6.34	10.54	14.77	19.19	23.88	28.69		38.84	44.31	50.11		57.34	2 / ~~8~~ 7			
reaction time	0.276	interval		4.20	4.23	4.42	4.69	4.81		10.15	5.47	5.80	7.23			12.85		
		velocity	7.10	8.33	8.27	7.92	7.46	7.28		6.90	6.40	6.03	5.53	6.98		8.17		
H1 lead leg	L	strides	23	15	15	16	16	16			17	17	21	156				

2012 Olympic Games (London, GBR)

FINAL date 08-Aug-12

Hillier (2012) - uka 2012 olympic games report: 400m hurdles

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Antyukh, Natalya (RUS) (198		time	6.26	10.39	14.47	18.65	22.89	24.89	27.35	31.85	36.55	41.40	46.63		52.70	5 / 1			
reaction time	0.167	interval		4.13	4.08	4.18	4.24		4.46	4.50	4.70	4.85	5.23	6.07	PB		12.39	13.20	14.78
		velocity	7.19	8.47	8.58	8.37	8.25	8.04	7.85	7.78	7.45	7.22	6.69	6.59	7.59		8.47	7.95	7.10
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	17	20	182				
Demus, Lashinda (USA) (198		time	6.07	10.06	14.25	18.68	23.06	24.86	27.55	32.04	36.69	41.64	46.77		52.77	7 / 2			
reaction time	0.170	interval		3.99	4.19	4.43	4.38		4.49	4.49	4.65	4.95	5.13	6.00			12.61	13.36	14.73
		velocity	7.41	8.77	8.35	7.90	7.99	8.05	7.80	7.80	7.53	7.07	6.82	6.67	7.58		8.33	7.86	7.13
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Hejnová, Zuzana (CZE) (1986		time	6.63	10.82	15.07	19.42	23.78	25.58	28.16	32.70	37.42	42.30	47.45		53.38	4 / 3			
reaction time	0.163	interval		4.19	4.25	4.35	4.36		4.38	4.54	4.72	4.88	5.15	5.93			12.79	13.28	14.75
		velocity	6.79	8.35	8.24	8.05	8.03	7.82	7.99	7.71	7.42	7.17	6.80	6.75	7.49		8.21	7.91	7.12
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Spencer, Kallese (JAM) (1987		time	6.36	10.40	14.45	18.60	22.81	24.61	27.40	32.29	37.14	42.12	47.50		53.66	9 / 4			
reaction time	0.191	interval		4.04	4.05	4.15	4.21		4.59	4.89	4.85	4.98	5.38	6.16			12.24	13.69	15.21
		velocity	7.08	8.66	8.64	8.43	8.31	8.13	7.63	7.16	7.22	7.03	6.51	6.49	7.45		8.58	7.67	6.90
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	15	16	19	178				
Moline, Georganne (USA) (1		time	6.57	10.72	15.08	19.47	23.92	25.72	28.44	33.00	37.73	42.75	48.04		53.92	8 / 5			
reaction time	0.177	interval		4.15	4.36	4.39	4.45		4.52	4.56	4.73	5.02	5.29	5.88	PB		12.90	13.53	15.04
		velocity	6.85	8.43	8.03	7.97	7.87	7.78	7.74	7.68	7.40	6.97	6.62	6.80	7.42		8.14	7.76	6.98
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.2	179.2				
Brown, T'erea (USA) (1989)		time	6.39	10.44	14.68	19.06	23.50		28.07	33.05	38.10	43.34	48.67		55.07	2 / 6			
reaction time	0.201	interval		4.05	4.24	4.38	4.44		4.57	4.98	5.05	5.24	5.33	6.40			12.67	13.99	15.62
		velocity	7.04	8.64	8.25	7.99	7.88		7.66	7.03	6.93	6.68	6.57	6.25	7.26		8.29	7.51	6.72
H1 lead leg	R	strides	23	15	15	15	15		15	16	17	17	18		166				
Rosolová, Denisa (CZE) (198		time	6.67	11.00	15.37	19.78	24.23	26.03	28.73	33.43	38.27	43.40	48.97		55.27	3 / 7			
reaction time	0.244	interval		4.33	4.37	4.41	4.45		4.50	4.70	4.84	5.13	5.57	6.30			13.11	13.65	15.54
		velocity	6.75	8.08	8.01	7.94	7.87	7.68	7.78	7.45	7.23	6.82	6.28	6.35	7.24		8.01	7.69	6.76
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	17		162				
Odumosu, Ajoke (NGR) (198		time	6.77	10.88	15.13	19.48	24.00	25.80	28.87	33.83	38.67	44.05	49.50		55.31	6 / 8			
reaction time	0.270	interval		4.11	4.25	4.35	4.52		4.87	4.96	4.84	5.38	5.45	5.81			12.71	14.35	15.67
		velocity	6.65	8.52	8.24	8.05	7.74	7.75	7.19	7.06	7.23	6.51	6.42	6.88	7.23		8.26	7.32	6.70
H1 lead leg	L	strides	23	15	15	16	15		17	17	17	17	17		169				

2012 Japanese National High School Championships (Niigata, JPN)

FINAL date 31-Jul-12

Yanagiya (2014) - research on athlete performance and technique- 2014 data book

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Arashima, Yuri (JPN) (1997)	time	6.61	10.96	15.53	20.25	25.04		30.13	35.27	40.64	46.13	51.79		58.27	/ 1			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time		interval		4.35	4.57	4.72	4.79	5.09	5.14	5.37	5.49	5.66	6.48	PB		13.64	15.02	16.52
		velocity	6.81	8.05	7.66	7.42	7.31	6.88	6.81	6.52	6.38	6.18	6.17	6.86		7.70	6.99	6.36
H1 lead leg		strides		17	17	17	17	18	18	19	19	19		161				

2012 Japanese National Championships (Osaka, JPN)

FINAL date 10-Jun-12

Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.59	10.93	15.40	19.97	24.67		29.47	34.51	39.62	44.69	49.85		55.98	7 / 1			
reaction time		interval		4.34	4.47	4.57	4.70		4.80	5.04	5.11	5.07	5.16	6.13			13.38	14.54	15.34
		velocity	6.83	8.06	7.83	7.66	7.45		7.29	6.94	6.85	6.90	6.78	6.53	7.15		7.85	7.22	6.84
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	17	17	21	192				
Yoneda, Tomomi (JPN) (199		time	6.91	11.31	15.80	20.30	24.92		29.64	34.54	39.60	44.84	50.25		56.62	6 / 2			
reaction time		interval		4.40	4.49	4.50	4.62		4.72	4.90	5.06	5.24	5.41	6.37			13.39	14.24	15.71
		velocity	6.51	7.95	7.80	7.78	7.58		7.42	7.14	6.92	6.68	6.47	6.28	7.06		7.84	7.37	6.68
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	16	17	21	185				

2012 Shizuoka International Athletics Meeting (Fukuroi, JPN)

A FINAL date 03-May-12

Yasunori (2013) - race pattern analysis for the top Japanese 400m hurdlers in major domestic competitions

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.49	10.68	15.18	19.78	24.42		29.12	34.06	39.22	44.48	49.80		56.03	/ 2			
reaction time		interval		4.19	4.50	4.60	4.64		4.70	4.94	5.16	5.26	5.32	6.23			13.29	14.28	15.74
		velocity	6.93	8.35	7.78	7.61	7.54		7.45	7.09	6.78	6.65	6.58	6.42	7.14		7.90	7.35	6.67
H1 lead leg		strides		15	16	16	16		16	17	17	17	17		147				
Tago, Miyabi (JPN) (1988)		time	6.77	11.21	15.71	20.26	24.91		29.71	34.82	39.96	45.18	50.49		56.57	/ 3			
reaction time		interval		4.44	4.50	4.55	4.65		4.80	5.11	5.14	5.22	5.31	6.08			13.49	14.56	15.67
		velocity	6.65	7.88	7.78	7.69	7.53		7.29	6.85	6.81	6.70	6.59	6.58	7.07		7.78	7.21	6.70
H1 lead leg		strides		15	15	15	15		15	16	16	16	16		139				
Yoneda, Tomomi (JPN) (199		time	6.92	11.39	15.98	20.58	25.22		30.02	34.99	40.10	45.36	50.68		56.80	/ 4			
reaction time		interval		4.47	4.59	4.60	4.64		4.80	4.97	5.11	5.26	5.32	6.12	PB		13.66	14.41	15.69
		velocity	6.50	7.83	7.63	7.61	7.54		7.29	7.04	6.85	6.65	6.58	6.54	7.04		7.69	7.29	6.69
H1 lead leg		strides		15	15	15	15		16	16	16	16	17		141				

2011 IAAF World Championships (Daegu, KOR)

FINAL date 01-Sep-11

Behm (2011) - Le quatrache: Démus enfin!

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Demus, Lashinda (USA) (19		time	6.0	10.0	14.1	18.4	22.9		27.4	32.0	36.5	41.4	46.5		52.47	3 / 1			
reaction time	0.149	interval		4.0	4.1	4.3	4.5		4.5	4.6	4.5	4.9	5.1	6.0	AR		12.40	13.60	14.50
		velocity	7.50	8.75	8.54	8.14	7.78		7.78	7.61	7.78	7.14	6.86	6.70	7.62		8.47	7.72	7.24
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Walker, Melanie (JAM) (1983)		time	6.2	10.2	14.3	18.6	23.0		27.4	32.0	36.7	41.5	46.6		52.73	8 / 2			
reaction time	0.219	interval		4.0	4.1	4.3	4.4		4.4	4.6	4.7	4.8	5.1	6.1			12.40	13.40	14.60
		velocity	7.26	8.75	8.54	8.14	7.95		7.95	7.61	7.45	7.29	6.86	6.53	7.59		8.47	7.84	7.19
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	17	21	184				
Antyukh, Natalya (RUS) (198		time	6.2	10.4	14.5	18.8	23.2		27.7	32.4	37.2	42.3	47.6		53.85	5 / 3			
reaction time	0.151	interval		4.2	4.1	4.3	4.4		4.5	4.7	4.8	5.1	5.3	6.3			12.60	13.60	15.20
		velocity	7.26	8.33	8.54	8.14	7.95		7.78	7.45	7.29	6.86	6.60	6.40	7.43		8.33	7.72	6.91
H1 lead leg	R	strides	22	15	15	15	15		16	16	17	17	17	20	185				
Spencer, Kallese (JAM) (1987		time	6.1	10.1	14.1	18.4	22.9		27.2	32.0	36.7	41.9	47.3		54.01	2 / 4			
reaction time	0.195	interval		4.0	4.0	4.3	4.5		4.3	4.8	4.7	5.2	5.4	6.7			12.30	13.60	15.30
		velocity	7.38	8.75	8.75	8.14	7.78		8.14	7.29	7.45	6.73	6.48	5.96	7.41		8.54	7.72	6.86
H1 lead leg	L	strides	21	14	14	14	14		15	15	15	16	16	20	174				
Rabcheniuk, Anastasia (UKR		time	6.2	10.3	14.4	18.6	23.1		27.7	32.6	37.7	42.9	48.1		54.18	1 / 5			
reaction time	0.174	interval		4.1	4.1	4.2	4.5		4.6	4.9	5.1	5.2	5.2	6.1			12.40	14.00	15.50
		velocity	7.26	8.54	8.54	8.33	7.78		7.61	7.14	6.86	6.73	6.73	6.58	7.38		8.47	7.50	6.77
H1 lead leg	R	strides	22	15	15	15	15		16	16	17	17	17		165				
Stambolova, Vania (BUL) (19		time	6.5	10.7	15.0	19.3	23.6		28.2	33.0	37.7	42.8	48.0		54.23	6 / 6			
reaction time	0.260	interval		4.2	4.3	4.3	4.3		4.6	4.8	4.7	5.1	5.2	6.2			12.80	13.70	15.00
		velocity	6.92	8.33	8.14	8.14	8.14		7.61	7.29	7.45	6.86	6.73	6.42	7.38		8.20	7.66	7.00
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	17	17		162				
Hejnová, Zuzana (CZE) (1986		time	6.2	10.3	14.6	18.9	23.3		27.9	32.5	37.3	42.3	47.6		54.23	4 / 7			
reaction time	0.158	interval		4.1	4.3	4.3	4.4		4.6	4.6	4.8	5.0	5.3	6.6			12.70	13.60	15.10
		velocity	7.26	8.54	8.14	8.14	7.95		7.61	7.61	7.29	7.00	6.60	6.03	7.38		8.27	7.72	6.95
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	20	180				
Churakova, Yelena (RUS) (19		time	6.4	10.7	15.2	19.6	24.1		28.8	33.6	38.6				55.31	7 / 8			
reaction time	0.173	interval		4.3	4.5	4.4	4.5		4.7	4.8	5.0						13.20	14.00	
		velocity	7.03	8.14	7.78	7.95	7.78		7.45	7.29	7.00				7.23		7.95	7.50	
H1 lead leg	R	strides	22	15	15	16	15		15	15	15				128				

2011 Japanese National High School Championships (Kitakami, JPN)

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

FINAL

date 05-Aug-11

Abe (2011) - 64th high school championships: JAF scientific committee - biomechanics data collection

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Takisawa, Aya (JPN) (1994)		time	6.82	11.32	15.99	20.75	25.66		30.64	35.91	41.54	47.56	53.59		60.01	3 / 1			
reaction time		interval		4.50	4.67	4.76	4.91		4.98	5.27	5.63	6.02	6.03	6.42			13.93	15.16	17.68
		velocity	6.60	7.78	7.49	7.35	7.13		7.03	6.64	6.22	5.81	5.80	6.23	6.67		7.54	6.93	5.94
H1 lead leg		strides																	
Nishida, Ayaka (JPN) (1993)		time	7.04	11.88	16.73	21.69	26.73		31.95	37.20	42.69	48.43	54.17		60.13	6 / 2			
reaction time		interval		4.84	4.85	4.96	5.04		5.22	5.25	5.49	5.74	5.74	5.96			14.65	15.51	16.97
		velocity	6.39	7.23	7.22	7.06	6.94		6.70	6.67	6.38	6.10	6.10	6.71	6.65		7.17	6.77	6.19
H1 lead leg		strides																	
Benjabala, Mina (JPN) (1994)		time	7.17	12.08	16.93	21.94	27.01		32.08	37.15	42.66	48.45	54.27		60.58	7 / 3			
reaction time		interval		4.91	4.85	5.01	5.07		5.07	5.07	5.51	5.79	5.82	6.31			14.77	15.21	17.12
		velocity	6.28	7.13	7.22	6.99	6.90		6.90	6.90	6.35	6.04	6.01	6.34	6.60		7.11	6.90	6.13
H1 lead leg		strides																	

2011 Asian Championships (Kobe, JPN)

FINAL

date 10-Jul-11

Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.47	10.82	15.39	20.04	24.88		29.62	34.63	39.75	44.92	50.34		56.52	/ 1			
reaction time	0.198	interval		4.35	4.57	4.65	4.84		4.74	5.01	5.12	5.17	5.42	6.18			13.57	14.59	15.71
		velocity	6.96	8.05	7.66	7.53	7.23		7.38	6.99	6.84	6.77	6.46	6.47	7.08		7.74	7.20	6.68
H1 lead leg		strides		16	16	16	16		16	17	17	17	18		149				

2011 Poks Memorial (Hässleholm, SWE)

FINAL

date 12-Jun-11

Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Granqvist, Emilia (SWE) (199		time	6.90	11.44	16.24	21.14	26.20		31.56	37.06	42.88	48.82	54.92		61.70	/ 3			
reaction time		interval		4.54	4.80	4.90	5.06		5.36	5.50	5.82	5.94	6.10	6.78			14.24	15.92	17.86
		velocity	6.52	7.71	7.29	7.14	6.92		6.53	6.36	6.01	5.89	5.74	5.90	6.48		7.37	6.60	5.88
H1 lead leg	L	strides		16	17	17	17		18	18	19	19	19		160				

B-Race

date 12-Jun-11

Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Marcinkiewicz, Eva (SWE) (1		time	7.12	11.84	16.66	21.66	26.74		31.98	37.46	43.10	48.78	54.52		60.75	/ 1			
reaction time		interval		4.72	4.82	5.00	5.08		5.24	5.48	5.64	5.68	5.74	6.23			14.54	15.80	17.06
		velocity	6.32	7.42	7.26	7.00	6.89		6.68	6.39	6.21	6.16	6.10	6.42	6.58		7.22	6.65	6.15
H1 lead leg	R	strides		17	17	17	17		17	17	18	18	18	22	178				
Ndiwebene, Nuulu (SWE) (1		time	6.76	11.26	15.86	20.62	25.50		30.66	36.12	41.86	47.78	54.08		61.03	/ 2			
reaction time		interval		4.50	4.60	4.76	4.88		5.16	5.46	5.74	5.92	6.30	6.95			13.86	15.50	17.96
		velocity	6.66	7.78	7.61	7.35	7.17		6.78	6.41	6.10	5.91	5.56	5.76	6.55		7.58	6.77	5.85
H1 lead leg	L	strides		17	17	17	18		18	19	20	19	21	22	188				
Hindrikes, Evelin (SWE) (199		time	7.20	11.89	16.60	21.42	26.38		31.64	37.32	43.08	48.90	54.74		61.20	/ 3			
reaction time		interval		4.69	4.71	4.82	4.96		5.26	5.68	5.76	5.82	5.84	6.46			14.22	15.90	17.42
		velocity	6.25	7.46	7.43	7.26	7.06		6.65	6.16	6.08	6.01	5.99	6.19	6.54		7.38	6.60	6.03
H1 lead leg	L	strides		17	17	17	17		17	18	18	18	18	22	179				
Hurkmans, Jennie (SWE) (19		time	7.10	11.74	16.60	21.70	26.84			37.84	43.06	48.94	55.06		61.79	/ 4			
reaction time		interval		4.64	4.86	5.10	5.14			11.00	5.22	5.88	6.12	6.73	**PB**		14.60	16.14	17.22
		velocity	6.34	7.54	7.20	6.86	6.81			6.36	6.70	5.95	5.72	5.94	6.47		7.19	6.51	6.10
H1 lead leg	R	strides	16	16	17	17	17				17	18	19	21	158				

2011 Japanese National Championships (Kumagaya, JPN)

FINAL

date 12-Jun-11

Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.51	10.91	15.36	19.95	24.55		29.37	34.22	39.19	44.30	49.61		55.81	/ 1			
reaction time		interval		4.40	4.45	4.59	4.60		4.82	4.85	4.97	5.11	5.31	6.20			13.44	14.27	15.39
		velocity	6.91	7.95	7.87	7.63	7.61		7.26	7.22	7.04	6.85	6.59	6.45	7.17		7.81	7.36	6.82
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				
Tago, Miyabi (JPN) (1988)		time	6.79	11.16	15.55	20.00	24.55		29.22	34.14	39.15	44.42	50.26		56.90	/ 2			
reaction time		interval		4.37	4.39	4.45	4.55		4.67	4.92	5.01	5.27	5.84	6.64			13.21	14.14	16.12
		velocity	6.63	8.01	7.97	7.87	7.69		7.49	7.11	6.99	6.64	5.99	6.02	7.03		7.95	7.43	6.51
H1 lead leg		strides		15	15	15	15		15	16	16	16	18		141				
Miki, Shiori (JPN) (1991)		time	6.61	11.08	15.67	20.34	25.19		30.18	35.24	40.38	45.64	50.93		56.92	/ 3			
reaction time		interval		4.47	4.59	4.67	4.85		4.99	5.06	5.14	5.26	5.29	5.99	**PB**		13.73	14.90	15.69
		velocity	6.81	7.83	7.63	7.49	7.22		7.01	6.92	6.81	6.65	6.62	6.68	7.03		7.65	7.05	6.69
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				

2011 Friidrott (Stockholm, SWE)

FINAL

date 07-Jun-11

Blomkvist (2011) - www.elitlandslag.se/SprintHäck/LängSprintHäck.aspx

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Granqvist, Emilia (SWE) (199		time	6.94	11.48	16.12	21.04	26.10		31.24	36.50	41.90	47.68	53.44		60.25	/ 1			
reaction time		interval		4.54	4.64	4.92	5.06		5.14	5.26	5.40	5.78	5.76	6.81			14.10	15.46	16.94

		velocity	6.48	7.71	7.54	7.11	6.92	6.81	6.65	6.48	6.06	6.08	5.87	6.64		7.45	6.79	6.20
H1 lead leg	L	strides		16	16	17	17	17	17	17	18	18	22	175				
Ndiwebene, Nuulu (SWE) (1		time	6.80	11.44	16.16	21.12	26.10	31.28	36.70	42.30	48.04	53.96		60.94	/ 2			
reaction time		interval		4.64	4.72	4.96	4.98	5.18	5.42	5.60	5.74	5.92	6.98			14.32	15.58	17.26
		velocity	6.62	7.54	7.42	7.06	7.03	6.76	6.46	6.25	6.10	5.91	5.73	6.56		7.33	6.74	6.08
H1 lead leg	L	strides		17	17	18	18	18	19	19	19	21	22	188				
Bley, Sara (SWE) (1991)		time	7.16	11.82	16.56	21.56	26.80	32.04	37.38	42.94	48.80	54.64		61.35	/ 3			
reaction time		interval		4.66	4.74	5.00	5.24	5.24	5.34	5.56	5.86	5.84	6.71			14.40	15.82	17.26
		velocity	6.28	7.51	7.38	7.00	6.68	6.68	6.55	6.29	5.97	5.99	5.96	6.52		7.29	6.64	6.08
H1 lead leg	L	strides		16	16	17	17	17	17	17	18	18	22	175				
Hurkmans, Jennie (SWE) (19		time	6.94	11.80	16.64	21.68	26.88	32.38	37.90	43.58	49.40	55.46		62.04	/ 4			
reaction time		interval		4.86	4.84	5.04	5.20	5.50	5.52	5.68	5.82	6.06	6.58			14.74	16.22	17.56
		velocity	6.48	7.20	7.23	6.94	6.73	6.36	6.34	6.16	6.01	5.78	6.08	6.45		7.12	6.47	5.98
H1 lead leg	R	strides		16	16	16	16	17	17	17	17	18	21	171				
Jernbeck, Therese (SWE) (19		time		12.32	17.36	22.56	28.00	33.64	39.36	45.44	51.28	57.06		63.13	/ 4			
reaction time		interval			5.04	5.20	5.44	5.64	5.72	6.08	5.84	5.78	6.07				16.80	17.70
		velocity		6.49	6.94	6.73	6.43	6.21	6.12	5.76	5.99	6.06	6.59	6.34			6.25	5.93
H1 lead leg		strides			16	16	16	16	16	17	16	16	19	148				

2010 Commonwealth Games (Dehli, IND)

FINAL

date 10-Oct-10

Arnold (2010) - 400mH planning and peaking

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Odumosu, Joke (NGR) (1987	0.246	no information available													55.28	4 / 1			
Child, Eilidh (GBR) (1987)		time	6.5	10.8	15.2	19.7	24.2	26.2	28.8	33.7	38.7	44.1	49.5		55.62	5 / 2			
reaction time	0.238	interval		4.3	4.4	4.5	4.5		4.6	4.9	5.0	5.4	5.4	6.12			13.20	14.00	15.80
		velocity	6.92	8.14	7.95	7.78	7.78	7.63	7.61	7.14	7.00	6.48	6.48	6.54	7.19		7.95	7.50	6.65
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	18	18	21.5	195.5				
Wilson, Nickiesha (JAM) (19	0.306	no information available													56.06	6 / 3			
Boden, Lauren (AUS) (1988)	0.210	no information available													56.31	7 / 4			
Mebam, Caroline Kaboud (C	0.354	no information available													57.61	9 / 5			
Wasike, Florence (KEN) (197	0.254	no information available													57.75	2 / 6			
Beesley, Meghan (GBR) (198	0.258	no information available													58.36	8 / 7			

Heat 2

date 09-Oct-10

Arnold (2010) - 400mH planning and peaking

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Child, Eilidh (GBR) (1987)		time	6.3	10.7	15.1	19.5	24.0	26.0	28.8	33.8	39.1	44.5	49.9		56.16	7 / 2			
reaction time	0.202	interval		4.4	4.4	4.4	4.5		4.8	5.0	5.3	5.4	5.4	6.26			13.20	14.30	16.10
		velocity	7.14	7.95	7.95	7.95	7.78	7.69	7.29	7.00	6.60	6.48	6.48	6.39	7.12		7.95	7.34	6.52
H1 lead leg		strides																	

2010 Japanese National High School Championships (Okinawa, JPN)

FINAL

date 31-Jul-10

Matsuo (2010) - 63rd high school championships: JAF scientific committee - biomechanics data collection

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Umemoto, Rina (JPN) (1992)		time	7.11	11.73	16.47	21.26	26.20		31.07	36.33	41.70	47.44	53.31		59.96	/ 1			
reaction time		interval		4.62	4.74	4.79	4.94		4.87	5.26	5.37	5.74	5.87	6.65	PB		14.15	15.07	16.98
		velocity	6.33	7.58	7.38	7.31	7.09		7.19	6.65	6.52	6.10	5.96	6.02	6.67		7.42	6.97	6.18
H1 lead leg		strides		17	17	17	17		17	18	18	19	20		160				
Omori, Nanase (JPN) (1992)		time	6.76	11.23	15.95	20.75	25.69		30.71	35.90	41.31	47.13	53.25		60.51	/ 2			
reaction time		interval		4.47	4.72	4.80	4.94		5.02	5.19	5.41	5.82	6.12	7.26			13.99	15.15	17.35
		velocity	6.66	7.83	7.42	7.29	7.09		6.97	6.74	6.47	6.01	5.72	5.51	6.61		7.51	6.93	6.05
H1 lead leg		strides		17	17	17	17		17	17	17	18	19		156				
Sugiyama, Manaho (JPN) (19		time	6.91	11.63	16.48	21.35	26.37		31.41	36.58	41.89	47.63	53.94		61.21	/ 3			
reaction time		interval		4.72	4.85	4.87	5.02		5.04	5.17	5.31	5.74	6.31	7.27			14.44	15.23	17.36
		velocity	6.51	7.42	7.22	7.19	6.97		6.94	6.77	6.59	6.10	5.55	5.50	6.53		7.27	6.89	6.05
H1 lead leg		strides		17	17	17	17		17	17	17	18	20		157				

Behm (2010) - les haies bases

2010 European Championships (Barcelona, ESP)

Graubner (2010) - http://www.fgs.uni-halle.de

FINAL

date 30-Jul-10

Arnold (2010) - 400mH planning and peaking

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Antyukh, Natalya (RUS) (198		time	6.43	10.52	14.66	18.93	23.19		27.60	32.18	37.03	41.95	47.01		52.92	6 / 1		*Graubner (2010)*	
reaction time	0.182	interval		4.09	4.14	4.27	4.26		4.41	4.58	4.85	4.92	5.06	5.91	CR		12.50	13.25	14.83
		velocity	7.00	8.56	8.45	8.20	8.22		7.94	7.64	7.22	7.11	6.92	6.77	7.56		8.40	7.92	7.08
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16	19.5	179.5				
Stambolova, Vania (BUL) (19		time	6.8	11.1	15.4	19.8	24.2		28.7	33.3	38.1	43.0	48.0		53.82	5 / 2		*Behm (2010)*	
reaction time	0.283	interval		4.3	4.3	4.4	4.4		4.5	4.6	4.8	4.9	5.0	5.8	NR		13.00	13.50	14.70
		velocity	6.62	8.14	8.14	7.95	7.95		7.78	7.61	7.29	7.14	7.00	6.87			8.08	7.78	7.14
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16		161				
Shakes-Drayton, Perri (GBR)		time	6.46	10.64	14.88	19.26	23.54		28.08	32.88	37.86	42.90	48.14		54.18	7 / 3		*Arnold (2010)*	
reaction time	0.270	interval		4.18	4.24	4.38	4.28		4.54	4.80	4.98	5.04	5.24	6.04	PB		12.80	13.62	15.26

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	6.97	8.37	8.25	7.99	8.18	7.71	7.29	7.03	6.94	6.68	6.62	7.38		8.20	7.71	6.88
H1 lead leg	L	strides	24	16	16	16	15	15	17	17	17	17		170				
Hejnová, Zuzana (CZE) (198		0.183	no information available											54.30	3 / 4			
Morosanu, Angela (ROU) (1		0.230	no information available											54.58	4 / 5			
Isakova, Yevgeniya (RUS) (1		0.208	no information available											54.59	8 / 6			
Ivanova, Natalya (RUS) (1981		0.268	no information available											55.51	1 / 7			
Child, Eilidh (GBR) (1987)		time		10.64	15.04	19.42	24.02	28.76	33.62	38.76	44.08	49.50		55.51	2 / 8		*Arnold (2010)*	
reaction time	0.199	interval			4.40	4.38	4.60	4.74	4.86	5.14	5.32	5.42	6.01				14.20	15.88
		velocity		7.52	7.95	7.99	7.61	7.38	7.20	6.81	6.58	6.46	6.66	7.21			7.39	6.61
H1 lead leg	L	strides	24	16	16	16	17	17	17	17	18	18		176				

Semi-Final 2

date 28-Jul-10 — *Arnold (2010) - 400mH planning and peaking*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Shakes-Drayton, Perri (GBR)		time	6.50	10.74	15.16	19.54	24.04		28.70	33.54	38.50	43.52	48.82		54.73	3 / 3			
reaction time	0.258	interval		4.24	4.42	4.38	4.50		4.66	4.84	4.96	5.02	5.30	5.91	PB		13.04	14.00	15.28
		velocity	6.92	8.25	7.92	7.99	7.78		7.51	7.23	7.06	6.97	6.60	6.77	7.31		8.05	7.50	6.87
H1 lead leg	R	strides		15	16	16	15		16	16	17	17	17						

Semi-Final 1

date 28-Jul-10 — *Arnold (2010) - 400mH planning and peaking*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Child, Eilidh (GBR) (1987)		time	6.48	10.78	15.10	19.50	23.96		28.64	33.48	38.38	43.64	49.20		55.27	4 / 4			
reaction time	0.169	interval		4.30	4.32	4.40	4.46		4.68	4.84	4.90	5.26	5.56	6.07			13.02	13.98	15.72
		velocity	6.94	8.14	8.10	7.95	7.85		7.48	7.23	7.14	6.65	6.29	6.59	7.24		8.06	7.51	6.68
H1 lead leg	L	strides																	

Heat 3

date 27-Jul-10 — *Arnold (2010) - 400mH planning and peaking*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Child, Eilidh (GBR) (1987)		time	6.56	10.82	15.20	19.56	24.04		28.70	33.52	38.54	44.06	49.70		55.82	8 / 2			
reaction time	0.331	interval		4.26	4.38	4.36	4.48		4.66	4.82	5.02	5.52	5.64	6.12			13.00	13.96	16.18
		velocity	6.86	8.22	7.99	8.03	7.81		7.51	7.26	6.97	6.34	6.21	6.54	7.17		8.08	7.52	6.49
H1 lead leg	L	strides																	

Heat 1

date 27-Jul-10 — *Arnold (2010) - 400mH planning and peaking*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Shakes-Drayton, Perri (GBR)		time	6.54	10.74	15.04	19.42	23.92		28.54	33.54	38.62	44.00	49.36		55.35	4 / 2			
reaction time	0.189	interval		4.20	4.30	4.38	4.50		4.62	5.00	5.08	5.38	5.36	5.99			12.88	14.12	15.82
		velocity	6.88	8.33	8.14	7.99	7.78		7.58	7.00	6.89	6.51	6.53	6.68	7.23		8.15	7.44	6.64
H1 lead leg	R	strides		15	16	16	15		16	16	17	17	17						

2010 Japanese National Championships (Marugume, JPN)

FINAL

date 06-Jun-10 — *Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.47	10.76	15.25	19.82	24.44		29.23	34.22	39.36	44.52	49.73		55.83	/ 1			
reaction time	0.183	interval		4.29	4.49	4.57	4.62		4.79	4.99	5.14	5.16	5.21	6.10			13.35	14.40	15.51
		velocity	6.96	8.16	7.80	7.66	7.58		7.31	7.01	6.81	6.78	6.72	6.56	7.16		7.87	7.29	6.77
H1 lead leg		strides		15	16	16	16		16	16	17	17	17		146				
Tago, Miyabi (JPN) (1988)		time	6.84	11.19	15.68	20.20	24.79		29.66	34.63	39.74	44.86	50.17		56.31	/ 2			
reaction time	0.184	interval		4.35	4.49	4.52	4.59		4.87	4.97	5.11	5.12	5.31	6.14			13.36	14.43	15.54
		velocity	6.58	8.05	7.80	7.74	7.63		7.19	7.04	6.85	6.84	6.59	6.51	7.10		7.86	7.28	6.76
H1 lead leg		strides		15	15	15	15		16	16	16	16	16		140				
Aoki, Sayaka (JPN) (1986)		time	6.55	10.99	15.44	20.01	24.65		29.49	34.55	39.66	44.87	50.29		56.90	/ 3			
reaction time		interval		4.44	4.45	4.57	4.64		4.84	5.06	5.11	5.21	5.42	6.61			13.46	14.54	15.74
		velocity	6.87	7.88	7.87	7.66	7.54		7.23	6.92	6.85	6.72	6.46	6.05	7.03		7.80	7.22	6.67
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				

2010 Osaka Grand Prix (Osaka, JPN)

FINAL

date 08-May-10 — *Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tago, Miyabi (JPN) (1988)		time	6.76	11.08	15.50	19.97	24.56		29.38	34.32	39.38	44.55	49.86		55.99	/ 3			
reaction time		interval		4.32	4.42	4.47	4.59		4.82	4.94	5.06	5.17	5.31	6.13	PB		13.21	14.35	15.54
		velocity	6.66	8.10	7.92	7.83	7.63		7.26	7.09	6.92	6.77	6.59	6.53	7.14		7.95	7.32	6.76
H1 lead leg		strides		15	15	15	15		16	16	16	16	17		141				
Kubokura, Satomi (JPN) (19		time	6.34	10.58	14.95	19.32	23.94		28.61	33.58	38.79	44.18	49.72		56.29	/ 4			
reaction time		interval		4.24	4.37	4.37	4.62		4.67	4.97	5.21	5.39	5.54	6.57			12.98	14.26	16.14
		velocity	7.10	8.25	8.01	8.01	7.58		7.49	7.04	6.72	6.49	6.32	6.09	7.11		8.09	7.36	6.51
H1 lead leg		strides		16	16	16	16		16	17	17	17	17		148				

2010 Shizuoka International Athletics Meeting (Fukuroi, JPN)

Race A

date 03-May-10 — *Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.46	10.73	15.23	19.78	24.47		29.15	34.07	39.13	44.39	49.98		56.50	/ 2			
reaction time		interval		4.27	4.50	4.55	4.69		4.68	4.92	5.06	5.26	5.59	6.52			13.32	14.29	15.91
		velocity	6.97	8.20	7.78	7.69	7.46		7.48	7.11	6.92	6.65	6.26	6.13	7.08		7.88	7.35	6.60

H1 lead leg		strides		16	16	16	16		16	17	17	17	17		148			

2009 IAAF World Championships (Berlin, GER)

FINAL

date 20-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Walker, Melaine (JAM) (1983)		time	6.23	10.15	14.32	18.58	22.98		27.45	32.08	36.81	41.58	46.63		52.42	4 / 1			
reaction time	0.142	interval		3.92	4.17	4.26	4.40		4.47	4.63	4.73	4.77	5.05	5.79	CR / AR		12.35	13.50	14.55
		velocity	7.22	8.93	8.39	8.22	7.95		7.83	7.56	7.40	7.34	6.93	6.91	7.63		8.50	7.78	7.22
H1 lead leg		strides		15	15	15	15		15	16	16	16	17		140				
Demus, Lashinda (USA) (19		time	6.16	10.11	14.23	18.59	23.05		27.51	32.02	36.65	41.70	46.99		52.96	5 / 2			
reaction time	0.159	interval		3.95	4.12	4.36	4.46		4.46	4.51	4.63	5.05	5.29	5.97			12.43	13.43	14.97
		velocity	7.31	8.86	8.50	8.03	7.85		7.85	7.76	7.56	6.93	6.62	6.70	7.55		8.45	7.82	7.01
H1 lead leg		strides		15	15	15	15		15	15	15	17	17		139				
Lucas, Josanne (TTO) (1984)		time	6.26	10.20	14.30	18.50	22.90		27.47	32.17	36.97	42.01	47.21		53.20	3 / 3			
reaction time	0.186	interval		3.94	4.10	4.20	4.40		4.57	4.70	4.80	5.04	5.20	5.99	NR		12.24	13.67	15.04
		velocity	7.19	8.88	8.54	8.33	7.95		7.66	7.45	7.29	6.94	6.73	6.68	7.52		8.58	7.68	6.98
H1 lead leg		strides		14	14	14	14		15	15	15	16	16		133				
Spencer, Kaliese (JAM) (1987		time	6.43	10.48	14.66	18.93	23.31		27.95	32.69	37.51	42.45	47.55		53.56	6 / 4			
reaction time	0.149	interval		4.05	4.18	4.27	4.38		4.64	4.74	4.82	4.94	5.10	6.01	PB		12.50	13.76	14.86
		velocity	7.00	8.64	8.37	8.20	7.99		7.54	7.38	7.26	7.09	6.86	6.66	7.47		8.40	7.63	7.07
H1 lead leg		strides		14	14	14	14		15	15	15	15	15		131				
Williams, Tiffany (USA) (198		time	6.31	10.34	14.45	18.68	22.96		27.45	32.27	37.09	42.21	47.53		53.83	2 / 5			
reaction time	0.161	interval		4.03	4.11	4.23	4.28		4.49	4.82	4.82	5.12	5.32	6.30			12.37	13.59	15.26
		velocity	7.13	8.68	8.52	8.27	8.18		7.80	7.26	7.26	6.84	6.58	6.35	7.43		8.49	7.73	6.88
H1 lead leg		strides		15	15	15	15		15	16	16	17	17		141				
Antyukh, Natalya (RUS) (198		time	6.61	10.63	14.67	18.86	23.14		27.61	32.22	37.07	42.27	47.68		54.11	7 / 6			
reaction time	0.205	interval		4.02	4.04	4.19	4.28		4.47	4.61	4.85	5.20	5.41	6.43	PB		12.25	13.36	15.46
		velocity	6.81	8.71	8.66	8.35	8.18		7.83	7.59	7.22	6.73	6.47	6.22	7.39		8.57	7.86	6.79
H1 lead leg		strides		15	15	15	15		15	16	16	17	17		141				
Rabchenyuk, Anastasiya (UK		time	6.51	10.61	14.81	19.19	23.82		28.58	33.45	38.45	43.67	49.03		54.78	8 / 7			
reaction time	0.206	interval		4.10	4.20	4.38	4.63		4.76	4.87	5.00	5.22	5.36	5.75			12.68	14.26	15.58
		velocity	6.91	8.54	8.33	7.99	7.56		7.35	7.19	7.00	6.70	6.53	6.96	7.30		8.28	7.36	6.74
H1 lead leg		strides		15	15	15	16		16	16	16	17	18		144				
Morosanu, Angela (ROU) (1		time	6.17	10.14	14.24	18.56	22.97		27.70	32.63	37.70	43.08	48.71		55.04	1 / 8			
reaction time	0.183	interval		3.97	4.10	4.32	4.41		4.73	4.93	5.07	5.38	5.63	6.33			12.39	14.07	16.08
		velocity	7.29	8.82	8.54	8.10	7.94		7.40	7.10	6.90	6.51	6.22	6.32	7.27		8.47	7.46	6.53
H1 lead leg		strides		14	14	15	14		15	15	15	16	17		135				

Semi-Final 3

date 18-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Demus, Lashinda (USA) (19		time	6.22	10.21	14.44	18.83	23.40		27.99	32.67	37.50	42.74	48.23		54.25	6 / 1			
reaction time	0.162	interval		3.99	4.23	4.39	4.57		4.59	4.68	4.83	5.24	5.49	6.02			12.61	13.84	15.56
		velocity	7.23	8.77	8.27	7.97	7.66		7.63	7.48	7.25	6.68	6.38	6.64	7.37		8.33	7.59	6.75
H1 lead leg		strides																	
Antyukh, Natalya (RUS) (198		time	6.80	11.05	15.35	19.74	24.20		27.78	33.53	38.42	43.34	48.91		54.86	5 / 2			
reaction time	0.176	interval		4.25	4.30	4.39	4.46		3.58	5.75	4.89	4.92	5.57	5.95			12.94	13.79	15.38
		velocity	6.62	8.24	8.14	7.97	7.85		9.78	6.09	7.16	7.11	6.28	6.72	7.29		8.11	7.61	6.83
H1 lead leg		strides																	
Wilson, Nickiesha (JAM) (19		time	6.37	10.40	14.54	18.92	23.53		28.25	33.07	38.04	43.28	48.78		54.89	3 / 3			
reaction time	0.247	interval		4.03	4.14	4.38	4.61		4.72	4.82	4.97	5.24	5.50	6.11			12.55	14.15	15.71
		velocity	7.06	8.68	8.45	7.99	7.59		7.42	7.26	7.04	6.68	6.36	6.55	7.29		8.37	7.42	6.68
H1 lead leg		strides																	
Hejnová, Zuzana (CZE) (1986		time	6.60	10.90	15.24	19.66	24.21		28.89	33.70	38.72	43.84	49.08		54.99	4 / 4			
reaction time	0.149	interval		4.30	4.34	4.42	4.55		4.68	4.81	5.02	5.12	5.24	5.91			13.06	14.04	15.38
		velocity	6.82	8.14	8.06	7.92	7.69		7.48	7.28	6.97	6.84	6.68	6.77	7.27		8.04	7.48	6.83
H1 lead leg		strides																	
Tilgner, Jonna (GER) (1984)		time	6.45	10.48	14.68	19.10	23.88		28.74	34.02	39.40	44.92	50.71		57.11	2 / 8			
reaction time	0.179	interval		4.03	4.20	4.42	4.78		4.86	5.28	5.38	5.52	5.79	6.40			12.65	14.92	16.69
		velocity	6.98	8.68	8.33	7.92	7.32		7.20	6.63	6.51	6.34	6.04	6.25	7.00		8.30	7.04	6.29
H1 lead leg		strides																	

Semi-Final 2

date 18-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Spencer, Kaliese (JAM) (1987		time	6.45	10.47	14.65	18.88	23.29		28.03	32.85	37.73	42.81	48.27		54.37	3 / 1			
reaction time	0.180	interval		4.02	4.18	4.23	4.41		4.74	4.82	4.88	5.08	5.46	6.10			12.43	13.97	15.42
		velocity	6.98	8.71	8.37	8.27	7.94		7.38	7.26	7.17	6.89	6.41	6.56	7.36		8.45	7.52	6.81
H1 lead leg		strides																	

Rabchenyuk, Anastasiya (UK	time	6.51	10.69	14.97	19.39	23.89		28.66	33.59	38.57	43.57	48.73		54.49	6 / 2			
reaction time 0.188	interval		4.18	4.28	4.42	4.50		4.77	4.93	4.98	5.00	5.16	5.76			12.88	14.20	15.14
	velocity	6.91	8.37	8.18	7.92	7.78		7.34	7.10	7.03	7.00	6.78	6.94	7.34		8.15	7.39	6.94
H1 lead leg	strides																	
Williams, Tiffany (USA) (198	time	6.46	10.65	14.92	19.29	23.75		28.53	33.29	38.28	43.42	48.69		54.79	5 / 3			
reaction time 0.167	interval		4.19	4.27	4.37	4.46		4.78	4.76	4.99	5.14	5.27	6.10			12.83	14.00	15.40
	velocity	6.97	8.35	8.20	8.01	7.85		7.32	7.35	7.01	6.81	6.64	6.56	7.30		8.18	7.50	6.82
H1 lead leg	strides																	
Jesień, Anna (POL) (1978)	time	6.57	10.79	15.06	19.45	23.97		28.54	33.39	38.29	43.41	48.65		54.82	4 / 4			
reaction time 0.183	interval		4.22	4.27	4.39	4.52		4.57	4.85	4.90	5.12	5.24	6.17			12.88	13.94	15.26
	velocity	6.85	8.29	8.20	7.97	7.74		7.66	7.22	7.14	6.84	6.68	6.48	7.30		8.15	7.53	6.88
H1 lead leg	strides																	

Semi-Final 1

date 18-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Walker, Melaine (JAM) (1983)	time	6.35	10.43	14.60	18.89	23.30		27.94	32.66	37.42	42.25	47.42		53.26	6 / 1			
reaction time 0.183	interval		4.08	4.17	4.29	4.41		4.64	4.72	4.76	4.83	5.17	5.84			12.54	13.77	14.76
	velocity	7.09	8.58	8.39	8.16	7.94		7.54	7.42	7.35	7.25	6.77	6.85	7.51		8.37	7.63	7.11
H1 lead leg	strides																	
Lucas, Josanne (TTO) (1984)	time	6.29	10.32	14.42	18.67	23.04		27.60	32.34	37.26	42.35	47.80		53.98	3 / 2			
reaction time 0.190	interval		4.03	4.10	4.25	4.37		4.56	4.74	4.92	5.09	5.45	6.18	NR		12.38	13.67	15.46
	velocity	7.15	8.68	8.54	8.24	8.01		7.68	7.38	7.11	6.88	6.42	6.47	7.41		8.48	7.68	6.79
H1 lead leg	strides																	
Morosanu, Angela (ROU) (1	time	6.16	10.14	14.21	18.54	23.04		27.66	32.44	37.34	42.54	47.98		54.15	5 / 3			
reaction time 0.218	interval		3.98	4.07	4.33	4.50		4.62	4.78	4.90	5.20	5.44	6.17			12.38	13.90	15.54
	velocity	7.31	8.79	8.60	8.08	7.78		7.58	7.32	7.14	6.73	6.43	6.48	7.39		8.48	7.55	6.76
H1 lead leg	strides																	

Heat 5

date 17-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Demus, Lashinda (USA) (198	time	6.27	10.25	14.48	18.91	23.48		28.10	32.88	37.92	43.14	48.63		54.66	5 / 1			
reaction time 0.152	interval		3.98	4.23	4.43	4.57		4.62	4.78	5.04	5.22	5.49	6.03			12.64	13.97	15.75
	velocity	7.18	8.79	8.27	7.90	7.66		7.58	7.32	6.94	6.70	6.38	6.63	7.32		8.31	7.52	6.67
H1 lead leg	strides																	
Tilgner, Jonna (GER) (1984)	time	6.45	10.50	14.77	19.20	23.88		28.76	33.97	39.32	44.98	50.62		56.73	4 / 5			
reaction time 0.211	interval		4.05	4.27	4.43	4.68		4.88	5.21	5.35	5.66	5.64	6.11			12.75	14.77	16.65
	velocity	6.98	8.64	8.20	7.90	7.48		7.17	6.72	6.54	6.18	6.21	6.55	7.05		8.24	7.11	6.31
H1 lead leg	strides																	

Heat 4

date 17-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Morosanu, Angela (ROU) (1	time	6.21	10.32	14.62	18.87	23.25		27.96	32.83	37.75	42.80	48.35		54.70	3 / 1			
reaction time 0.187	interval		4.11	4.30	4.25	4.38		4.71	4.87	4.92	5.05	5.55	6.35			12.66	13.96	15.52
	velocity	7.25	8.52	8.14	8.24	7.99		7.43	7.19	7.11	6.93	6.31	6.30	7.31		8.29	7.52	6.77
H1 lead leg	strides																	
Williams, Tiffany (USA) (198	time	6.38	10.51	14.69	18.95	23.61		28.29	33.27	38.23	43.47	48.94		55.24	7 / 2			
reaction time 0.163	interval		4.13	4.18	4.26	4.66		4.68	4.98	4.96	5.24	5.47	6.30			12.57	14.32	15.67
	velocity	7.05	8.47	8.37	8.22	7.51		7.48	7.03	7.06	6.68	6.40	6.35	7.24		8.35	7.33	6.70
H1 lead leg	strides																	

Heat 3

date 17-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Walker, Melaine (JAM) (1983)	time	6.33	10.39	14.65	19.06	23.70		28.52	33.41	38.59	43.91	49.16		55.17	6 / 1			
reaction time 0.155	interval		4.06	4.26	4.41	4.64		4.82	4.89	5.18	5.32	5.25	6.01			12.73	14.35	15.75
	velocity	7.11	8.62	8.22	7.94	7.54		7.26	7.16	6.76	6.58	6.67	6.66	7.25		8.25	7.32	6.67
H1 lead leg	strides																	
Antyukh, Natalya (RUS) (198	time	6.84	11.19	15.53	19.93	24.43		29.03	33.88	38.92	44.03	49.27		55.40	3 / 2			
reaction time 0.215	interval		4.35	4.34	4.40	4.50		4.60	4.85	5.04	5.11	5.24	6.13			13.09	13.95	15.39
	velocity	6.58	8.05	8.06	7.95	7.78		7.61	7.22	6.94	6.85	6.68	6.53	7.22		8.02	7.53	6.82
H1 lead leg	strides																	

Heat 2

date 17-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wilson, Nickiesha (JAM) (19	time	6.31	10.29	14.43	18.75	23.28		28.07	32.92	37.92	43.30	48.93		55.37	2 / 1			
reaction time 0.173	interval		3.98	4.14	4.32	4.53		4.79	4.85	5.00	5.38	5.63	6.44			12.44	14.17	16.01
	velocity	7.13	8.79	8.45	8.10	7.73		7.31	7.22	7.00	6.51	6.22	6.21	7.22		8.44	7.41	6.56
H1 lead leg	strides																	
Jesień, Anna (POL) (1978)	time	6.67	11.07	15.61	20.13	24.75		29.51	34.46	39.48	44.57	49.75		55.57	8 / 3			
reaction time 0.170	interval		4.40	4.54	4.52	4.62		4.76	4.95	5.02	5.09	5.18	5.82			13.46	14.33	15.29
	velocity	6.75	7.95	7.71	7.74	7.58		7.35	7.07	6.97	6.88	6.76	6.87	7.20		7.80	7.33	6.87
H1 lead leg	strides																	

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Tosta, Sheena (USA) (1982)		time	6.19	10.21	14.33	18.67	23.18	27.91	32.81	38.01	43.41	49.21		56.00	5 / 4			
reaction time	0.154	interval		4.02	4.12	4.34	4.51	4.73	4.90	5.20	5.40	5.80	6.79			12.48	14.14	16.40
		velocity	7.27	8.71	8.50	8.06	7.76	7.40	7.14	6.73	6.48	6.03	5.89	7.14		8.41	7.43	6.40
H1 lead leg		strides																

Heat 1

date 17-Aug-09

Graubner (2009) - biomechanical analyses at the 12th IAAF world championships

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Spencer, Kaliese (JAM) (1984		time	6.45	10.59	14.87	19.17	23.67		28.11	33.03	38.01	43.32	48.87		55.12	3 / 1			
reaction time	0.188	interval		4.14	4.28	4.30	4.50		4.44	4.92	4.98	5.31	5.55	6.25			12.72	13.86	15.84
		velocity	6.98	8.45	8.18	8.14	7.78		7.88	7.11	7.03	6.59	6.31	6.40	7.26		8.25	7.58	6.63
H1 lead leg		strides																	
Lucas, Josanne (TTO) (1984)		time	6.40	10.46	14.62	18.89	23.35		28.04	32.98	38.27	43.63	49.23		55.41	8 / 2			
reaction time	0.173	interval		4.06	4.16	4.27	4.46		4.69	4.94	5.29	5.36	5.60	6.18			12.49	14.09	16.25
		velocity	7.03	8.62	8.41	8.20	7.85		7.46	7.09	6.62	6.53	6.25	6.47	7.22		8.41	7.45	6.46
H1 lead leg		strides																	
Huang Xiaoxiao (CHN) (1983		time	6.54	10.85	15.28	19.81	24.40		29.11	34.11	39.13	44.33	49.61		55.52	5 / 3			
reaction time	0.169	interval		4.31	4.43	4.53	4.59		4.71	5.00	5.02	5.20	5.28	5.91			13.27	14.30	15.50
		velocity	6.88	8.12	7.90	7.73	7.63		7.43	7.00	6.97	6.73	6.63	6.77	7.20		7.91	7.34	6.77
H1 lead leg		strides																	

2009 Japanese National High School Championships (Nara, JPN)

FINAL

date 31-Jul-09

Matsuo (2009) - 62nd high school championships: JAF scientific committee - biomechanics data collection

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Miki, Shiori (JPN) (1991)		time	6.87	11.64	16.43	21.40	26.51		31.82	37.19	42.56	47.83	53.09		58.96	/ 1			
reaction time		interval		4.77	4.79	4.97	5.11		5.31	5.37	5.37	5.27	5.26	5.87			14.53	15.79	15.90
		velocity	6.55	7.34	7.31	7.04	6.85		6.59	6.52	6.52	6.64	6.65	6.81	6.78		7.23	6.65	6.60
H1 lead leg		strides		17	16	16	16		17	17	17	17	17		150				
Kashima, Himari (JPN)		time	6.74	11.39	16.21	21.06	26.00		30.99	36.10	41.42	46.96	52.68		59.14	/ 2			
reaction time		interval		4.65	4.82	4.85	4.94		4.99	5.11	5.32	5.54	5.72	6.46			14.32	15.04	16.58
		velocity	6.68	7.53	7.26	7.22	7.09		7.01	6.85	6.58	6.32	6.12	6.19	6.76		7.33	6.98	6.33
H1 lead leg		strides		17	17	17	17		17	17	18	19	19		158				
Hatanaka, Yuki (JPN) (1991)		time	6.96	11.76	16.65	21.74	26.88		32.10	37.29	42.55	48.04	53.70		59.83	/ 3			
reaction time		interval		4.80	4.89	5.09	5.14		5.22	5.19	5.26	5.49	5.66	6.13			14.78	15.55	16.41
		velocity	6.47	7.29	7.16	6.88	6.81		6.70	6.74	6.65	6.38	6.18	6.53	6.69		7.10	6.75	6.40
H1 lead leg		strides		17	17	17	17		17	17	17	18	18		155				

2009 German National Championships (Ulm, GER)

Heat 3

date 04-Jul-09

Killing (2009) - der rhythmus is entscheidend

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tilgner, Jonna (GER) (1984)		time	6.48	10.61	14.90	19.40	24.05		28.86	34.00	39.36	44.81	50.30		56.58	/ 1			
reaction time	0.237	interval		4.13	4.29	4.50	4.65		4.81	5.14	5.36	5.45	5.49	6.28			12.92	14.60	16.30
		velocity	6.94	8.47	8.16	7.78	7.53		7.28	6.81	6.53	6.42	6.38	6.37	7.07		8.13	7.19	6.44
H1 lead leg		strides		15	15	15	15		16	16	17	17	17						

Heat 2

date 04-Jul-09

Killing (2009) - der rhythmus is entscheidend

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wehrsen, Claudia (GER) (19		time	6.77	11.07	15.52	20.12	24.88		29.97	35.20	40.63	46.13	51.74		58.07	/ 1			
reaction time	0.230	interval		4.30	4.45	4.60	4.76		5.09	5.23	5.43	5.50	5.61	6.33			13.35	15.08	16.54
		velocity	6.65	8.14	7.87	7.61	7.35		6.88	6.69	6.45	6.36	6.24	6.32	6.89		7.87	6.96	6.35
H1 lead leg		strides		15	15	15	15		16	16	17	17	17						

Heat 1

date 04-Jul-09

Killing (2009) - der rhythmus is entscheidend

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kron, Tina (GER) (1981)		time	6.54	10.71	14.98	19.30	23.80		28.54	33.73	39.17	44.77	50.52		57.18	/ 1			
reaction time	0.187	interval		4.17	4.27	4.32	4.50		4.74	5.19	5.44	5.60	5.75	6.66			12.76	14.43	16.79
		velocity	6.88	8.39	8.20	8.10	7.78		7.38	6.74	6.43	6.25	6.09	6.01	7.00		8.23	7.28	6.25
H1 lead leg		strides		15	15	15	15		16	16	18	18	18						

2009 Japanese National Championships (Hiroshima, JPN)

FINAL

date 27-Jun-09

Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.54	10.88	15.50	20.19	25.09		29.94	34.96	40.12	45.36	50.62		56.70	4 / 1			
reaction time		interval		4.34	4.62	4.69	4.90		4.85	5.02	5.16	5.24	5.26	6.08			13.65	14.77	15.66
		velocity	6.88	8.06	7.58	7.46	7.14		7.22	6.97	6.78	6.68	6.65	6.58	7.05		7.69	7.11	6.70
H1 lead leg		strides		16	16	16	16		16	17	17	17	17		148				
Aoki, Sayaka (JPN) (1986)		time	6.64	11.16	15.81	20.60	25.42		30.43	35.45	40.62	45.84	51.18		57.56	6 / 2			
reaction time		interval		4.52	4.65	4.79	4.82		5.01	5.02	5.17	5.22	5.34	6.38			13.96	14.85	15.73
		velocity	6.78	7.74	7.53	7.31	7.26		6.99	6.97	6.77	6.70	6.55	6.27	6.95		7.52	7.07	6.68
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				

2009 Osaka Grand Prix (Osaka, JPN)

FINAL

date 09-May-09

Yasuhori (2012) - race pattern analysis of top Japanese 400m hurdlers at major domestic competitions 2009-11

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.52	10.81	15.33	19.88	24.57		29.34	34.29	39.46	44.73	50.22		56.73	/ 4			
reaction time		interval		4.29	4.52	4.55	4.69		4.77	4.95	5.17	5.27	5.49	6.51			13.36	14.41	15.93
		velocity	6.90	8.16	7.74	7.69	7.46		7.34	7.07	6.77	6.64	6.38	6.14	7.05		7.86	7.29	6.59
H1 lead leg		strides		16	16	16	16		16	17	17	17	18		149				

2008 IAAF World Athletic Final (Stuttgart, GER)

FINAL date 14-Sep-08

Graubner (2009) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Walker, Melaine (JAM) (1983)		time	6.61	10.67	14.81	19.20	23.73		28.39	33.07	38.03	43.00	48.19		54.06	4 / 1			
reaction time	0.279	interval		4.06	4.14	4.39	4.53		4.66	4.68	4.96	4.97	5.19	5.87			12.59	13.87	15.12
		velocity	6.81	8.62	8.45	7.97	7.73		7.51	7.48	7.06	7.04	6.74	6.81	7.40		8.34	7.57	6.94
H1 lead leg		strides																	
Rabchenyuk, Anastasiya (UK		time	6.62	10.87	15.26	19.74	24.41		29.27	34.15	39.09	44.12	49.33		54.92	7 / 2			
reaction time	0.219	interval		4.25	4.39	4.48	4.67		4.86	4.88	4.94	5.03	5.21	5.59			13.12	14.41	15.18
		velocity	6.80	8.24	7.97	7.81	7.49		7.20	7.17	7.09	6.96	6.72	7.16	7.28		8.00	7.29	6.92
H1 lead leg		strides																	
Williams, Tiffany (USA) (198		time	6.57	10.84	15.23	19.71	24.25		29.13	33.95	38.94	44.09	49.33		55.16	3 / 3			
reaction time	0.151	interval		4.27	4.39	4.48	4.54		4.88	4.82	4.99	5.15	5.24	5.83			13.14	14.24	15.38
		velocity	6.85	8.20	7.97	7.81	7.71		7.17	7.26	7.01	6.80	6.68	6.86	7.25		7.99	7.37	6.83
H1 lead leg		strides																	
Isakova, Yevgeniya (RUS) (19		time	6.63	10.85	15.16	19.55	24.12		28.87	33.80	38.85	44.03	49.29		55.23	2 / 4			
reaction time	0.186	interval		4.22	4.31	4.39	4.57		4.75	4.93	5.05	5.18	5.26	5.94			12.92	14.25	15.49
		velocity	6.79	8.29	8.12	7.97	7.66		7.37	7.10	6.93	6.76	6.65	6.73	7.24		8.13	7.37	6.78
H1 lead leg		strides																	
Tosta, Sheena (USA) (1982)		time	6.40	10.55	14.83	19.27	23.93		28.73	33.57	38.51	43.79	49.20		55.33	5 / 5			
reaction time	0.153	interval		4.15	4.28	4.44	4.66		4.80	4.84	4.94	5.28	5.41	6.13			12.87	14.30	15.63
		velocity	7.03	8.43	8.18	7.88	7.51		7.29	7.23	7.09	6.63	6.47	6.53	7.23		8.16	7.34	6.72
H1 lead leg		strides																	
Jesień, Anna (POL) (1978)		time	6.61	10.75	15.04	19.38	23.87		28.65	33.52	38.61	43.87	49.32		55.44	1 / 6			
reaction time	0.151	interval		4.14	4.29	4.34	4.49		4.78	4.87	5.09	5.26	5.45	6.12			12.77	14.14	15.80
		velocity	6.81	8.45	8.16	8.06	7.80		7.32	7.19	6.88	6.65	6.42	6.54	7.22		8.22	7.43	6.65
H1 lead leg		strides																	
Spence, Christine (USA) (19		0.208	no information available												58.15	8 / 7			
Danvers, Tasha (GBR) (1977)		0.174	no information available												58.40	6 / 8			

2008 Olympic Games (Beijing, CHN)

FINAL date 20-Aug-08

Behm (2008)- Pekin 2008: Le quatrache masculin - féminin

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Walker, Melaine (JAM) (1983)		time	6.4	10.4	14.5	18.8	23.3		27.8	32.2	36.9	41.6	46.7		52.64	6 / 1			
reaction time	0.236	interval		4.0	4.1	4.3	4.5		4.5	4.4	4.7	4.7	5.1	5.94	**OR / AR**		12.40	13.40	14.50
		velocity	7.03	8.75	8.54	8.14	7.78		7.78	7.95	7.45	7.45	6.86	6.73	7.60		8.47	7.84	7.24
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	17	17	20.7	185.7				
Tosta, Sheena (USA) (1982)		time	6.2	10.2	14.2	18.4	22.9		27.4	32.0	36.8	41.8	47.1		53.70	5 / 2			
reaction time	0.191	interval		4.0	4.0	4.2	4.5		4.5	4.6	4.8	5.0	5.3	6.60			12.20	13.60	15.10
		velocity	7.26	8.75	8.75	8.33	7.78		7.78	7.61	7.29	7.00	6.60	6.06	7.45		8.61	7.72	6.95
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	16	20	181				
Danvers-Smith, Tasha (GBR		time	6.4	10.6	14.8	19.1	23.6		28.1	32.6	37.4	42.3	47.6		53.84	7 / 3			
reaction time	0.189	interval		4.2	4.2	4.3	4.5		4.5	4.5	4.8	4.9	5.3	6.24	**PB**		12.70	13.50	15.00
		velocity	7.03	8.33	8.33	8.14	7.78		7.78	7.78	7.29	7.14	6.60	6.41	7.43		8.27	7.78	7.00
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	17	17	21	183				
Rabchenyuk, Anastasiya (UK		time	6.3	10.5	14.6	19.0	23.6		28.1	33.0	37.9	43.0	48.2		53.96	4 / 4			
reaction time	0.248	interval		4.2	4.1	4.4	4.6		4.5	4.9	4.9	5.1	5.2	5.76	**PB**		12.70	14.00	15.20
		velocity	7.14	8.33	8.54	7.95	7.61		7.78	7.14	7.14	6.86	6.73	6.94	7.41		8.27	7.50	6.91
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	17	17	20	185				
Jesien, Anna (POL) (1978)		time	6.3	10.5	14.9	19.3	23.8		28.4	33.1	37.9	43.1	48.5		54.29	9 / 5			
reaction time	0.206	interval		4.2	4.4	4.4	4.5		4.6	4.7	4.8	5.2	5.4	5.79			13.00	13.80	15.40
		velocity	7.14	8.33	7.95	7.95	7.78		7.61	7.45	7.29	6.73	6.48	6.91	7.37		8.08	7.61	6.82
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16		162				
Bikert, Yekaterina (RUS) (19		time	6.4	10.7	15.0	19.3	23.8		28.4	33.2	38.2	43.5	48.9		54.96	2 / 6			
reaction time	0.193	interval		4.3	4.3	4.3	4.5		4.6	4.8	5.0	5.3	5.4	6.06			12.90	13.90	15.70
		velocity	7.03	8.14	8.14	8.14	7.78		7.61	7.29	7.00	6.60	6.48	6.60	7.28		8.14	7.55	6.69
H1 lead leg	R	strides	21	14	14	14	14		15	15	15	15	15		152				
Hejnorvá, Zuzana (CZE) (198		time	6.4	10.4	14.5	19.3	23.8		28.3	33.2	38.3	43.5	48.8		54.97	3 / 7			
reaction time	0.195	interval		4.0	4.1	4.8	4.5		4.5	4.9	5.1	5.2	5.3	6.17			12.90	13.90	15.60
		velocity	7.03	8.75	8.54	7.29	7.78		7.78	7.14	6.86	6.73	6.60	6.48	7.28		8.14	7.55	6.73
H1 lead leg	R	strides	22	15	15	15	15		16	16	16	17	17		164				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Williams, Tiffany (USA) (198		time	6.3	10.4	14.7	19.0	23.7	28.3	33.1	38.3	43.7	49.3		57.55	8 / 8			
reaction time	0.236	interval		4.1	4.3	4.3	4.7	4.6	4.8	5.2	5.4	5.6	8.25			12.70	14.10	16.20
		velocity	7.14	8.54	8.14	8.14	7.45	7.61	7.29	6.73	6.48	6.25	4.85	6.95		8.27	7.45	6.48
H1 lead leg	L	strides	22	15	15	15	16	16	16	17	18			150				

2008 Japanese National High School Championships (Kumagaya, JPN)

FINAL date 31-Jul-08

Abe (2008) - 61st high school championships: JAF scientific committee - biomechanics data collection

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Miki, Shiori (JPN) (1991)	time	7.01	11.73	16.62	21.47	26.46		31.68	36.95	42.24	47.55	52.79		58.79	/ 1			
reaction time	interval		4.72	4.89	4.85	4.99		5.22	5.27	5.29	5.31	5.24	6.00			14.46	15.48	15.84
	velocity	6.42	7.42	7.16	7.22	7.01		6.70	6.64	6.62	6.59	6.68	6.67	6.80		7.26	6.78	6.63
H1 lead leg	strides		16	16	16	16		17	17	17	17	17		149				
Shibata, Haruka (JPN) (1991)	time	7.09	11.83	16.68	21.60	26.63		31.72	36.97	42.24	47.53	52.89		58.83	/ 2			
reaction time	interval		4.74	4.85	4.92	5.03		5.09	5.25	5.27	5.29	5.36	5.94			14.51	15.37	15.92
	velocity	6.35	7.38	7.22	7.11	6.96		6.88	6.67	6.64	6.62	6.53	6.73	6.80		7.24	6.83	6.60
H1 lead leg	strides		17	17	17	17		17	17	17	17	17		153				
Yoneda, Tomomi (JPN) (199	time	7.06	11.75	16.58	21.45	26.48		31.58	36.94	42.39	47.95	53.59		59.95	/ 3			
reaction time	interval		4.69	4.83	4.87	5.03		5.10	5.36	5.45	5.56	5.64	6.36			14.39	15.49	16.65
	velocity	6.37	7.46	7.25	7.19	6.96		6.86	6.53	6.42	6.29	6.21	6.29	6.67		7.30	6.78	6.31
H1 lead leg	strides		17	17	17	17		17	17	17	18	18		155				

2008 USA Olympic Trials (Eugene, OR)

FINAL date 29-Jun-08

USATF Hurdle Development (2008)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Williams, Tiffany (USA) (198	time	6.52	10.68	14.96	19.14	23.42		28.04	32.72	37.68	42.71	47.96		54.03	5 / 1			
reaction time	interval		4.16	4.28	4.18	4.28		4.62	4.68	4.96	5.03	5.25	6.07			12.62	13.58	15.24
	velocity	6.90	8.41	8.18	8.37	8.18		7.58	7.48	7.06	6.96	6.67	6.59	7.40		8.32	7.73	6.89
H1 lead leg L	strides	24	15	15	15	15		16	16	17	17	17		167				
Harrison, Queen (USA) (198	time	6.57	10.88	15.21	19.45	23.83		28.43	33.28	38.42	43.51	48.68		54.60	8 / 2			
reaction time	interval		4.31	4.33	4.24	4.38		4.60	4.85	5.14	5.09	5.17	5.92	PB		12.88	13.83	15.40
	velocity	6.85	8.12	8.08	8.25	7.99		7.61	7.22	6.81	6.88	6.77	6.76	7.33		8.15	7.59	6.82
H1 lead leg L	strides	24	15	15	15	15		15	15	16	16	17		163				
Tosta, Sheena (USA) (1982)	time	6.31	10.46	14.83	19.25	23.84		28.55	33.32	38.41	43.58	48.82		54.62	4 / 3			
reaction time	interval		4.15	4.37	4.42	4.59		4.71	4.77	5.09	5.17	5.24	5.80			12.94	14.07	15.50
	velocity	7.13	8.43	8.01	7.92	7.63		7.43	7.34	6.88	6.77	6.68	6.90	7.32		8.11	7.46	6.77
H1 lead leg L	strides	23	15	15	15	15		15	15	16	16	16		161				
Demus, Lashinda (USA) (19	time	6.34	10.40	14.65	18.92	23.34		27.89	32.62	37.45	42.84	48.32		54.76	6 / 4			
reaction time	interval		4.06	4.25	4.27	4.42		4.55	4.73	4.83	5.39	5.48	6.44			12.58	13.70	15.70
	velocity	7.10	8.62	8.24	8.20	7.92		7.69	7.40	7.25	6.49	6.39	6.21	7.30		8.35	7.66	6.69
H1 lead leg R	strides	23	15	15	15	15		15	15	16	16	17		162				
Spence, Christine (USA) (19	time	6.51	10.71	15.08	19.45	23.92		28.51	33.42	38.42	43.82	49.27		55.74	3 / 5			
reaction time	interval		4.20	4.37	4.37	4.47		4.59	4.91	5.00	5.40	5.45	6.47			12.94	13.97	15.85
	velocity	6.91	8.33	8.01	8.01	7.83		7.63	7.13	7.00	6.48	6.42	6.18	7.18		8.11	7.52	6.62
H1 lead leg L	strides	23	15	15	15	15		16	16	16	17	17		165				
Wallace, Latosha (USA) (198	time	6.46	10.71	15.13	19.67	24.17		28.99	34.02	39.22	44.46	49.77		55.85	2 / 6			
reaction time	interval		4.25	4.42	4.54	4.50		4.82	5.03	5.20	5.24	5.31	6.08	PB		13.21	14.35	15.75
	velocity	6.97	8.24	7.92	7.71	7.78		7.26	6.96	6.73	6.68	6.59	6.58	7.16		7.95	7.32	6.67
H1 lead leg R	strides	24	15	16	16	15		16	16	17	17	17		169				
Perkins, Angel (USA) (1984)	time	6.44	10.59	14.99	19.49	24.02		28.95	34.07	39.31	44.54	49.83		56.23	1 / 7			
reaction time	interval		4.15	4.40	4.50	4.53		4.93	5.12	5.24	5.23	5.29	6.40			13.05	14.58	15.76
	velocity	6.99	8.43	7.95	7.78	7.73		7.10	6.84	6.68	6.69	6.62	6.25	7.11		8.05	7.20	6.66
H1 lead leg L	strides	24	16	16	16	15		17	17	17	17	17		172				
Barnes, Miriam (USA) (1983)	time	6.80	10.94	15.23	19.47	23.83		28.30	33.30	38.21	43.28	*fell on H9*		60.18	7 / ~~8~~			
reaction time	interval		4.14	4.29	4.24	4.36		4.47	5.00	4.91	5.07			DQ		12.67	13.83	
	velocity	6.62	8.45	8.16	8.25	8.03		7.83	7.00	7.13	6.90			6.65		8.29	7.59	
H1 lead leg R	strides	23	15	15	15	15		15	16	16	17	17		164				

2008 Japanese National Championships (Kawasaki, JPN)

FINAL date 27-Jun-08

Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19	time	6.56	10.76	15.15	19.64	24.24		28.98	33.85	38.94	44.18	49.69		56.21	/ 1			
reaction time	interval		4.20	4.39	4.49	4.60		4.74	4.87	5.09	5.24	5.51	6.52			13.08	14.21	15.84
	velocity	6.86	8.33	7.97	7.80	7.61		7.38	7.19	6.88	6.68	6.35	6.13	7.12		8.03	7.39	6.63
H1 lead leg	strides		16	16	16	16		16	17	17	17	17		148				
Aoki, Sayaka (JPN) (1986)	time	6.47	10.79	15.29	19.83	24.42		29.29	34.30	39.37	44.64	50.18		56.93	/ 2			
reaction time	interval		4.32	4.50	4.54	4.59		4.87	5.01	5.07	5.27	5.54	6.75			13.36	14.47	15.88
	velocity	6.96	8.10	7.78	7.71	7.63		7.19	6.99	6.90	6.64	6.32	5.93	7.03		7.86	7.26	6.61
H1 lead leg	strides		16	16	16	16		17	17	17	17	17		149				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

2008 Osaka Grand Prix (Osaka, JPN)

FINAL date 10-May-08

Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.77	11.23	15.70	20.43	25.18		30.08	35.20	40.41	45.82	51.49		57.84	8 / 4			
reaction time		interval		4.46	4.47	4.73	4.75		4.90	5.12	5.21	5.41	5.67	6.35			13.66	14.77	16.29
		velocity	6.65	7.85	7.83	7.40	7.37		7.14	6.84	6.72	6.47	6.17	6.30	6.92		7.69	7.11	6.45
H1 lead leg		strides		16	16	16	16		17	17	17	18	18		151				

2008 Shizuoka International Athletics Meeting (Fukuroi, JPN)

Race 2 date 03-May-08

Yasunori (2009) - race pattern analysis of prestigious Japanese 400m hurdlers

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.61	10.96	15.40	19.92	24.61		29.43	34.40	39.52	44.93	50.50		56.83	/ 1			
reaction time		interval		4.35	4.44	4.52	4.69		4.82	4.97	5.12	5.41	5.57	6.33			13.31	14.48	16.10
		velocity	6.81	8.05	7.88	7.74	7.46		7.26	7.04	6.84	6.47	6.28	6.32	7.04		7.89	7.25	6.52
H1 lead leg		strides		16	16	16	16		17	17	17	18	18		151				
Aoki, Sayaka (JPN) (1982)		time	6.63	11.10	15.62	20.16	24.91		29.86	34.90	40.14	45.46	50.93		57.33	/ 2			
reaction time		interval		4.47	4.52	4.54	4.75		4.95	5.04	5.24	5.32	5.47	6.40			13.53	14.74	16.03
		velocity	6.79	7.83	7.74	7.71	7.37		7.07	6.94	6.68	6.58	6.40	6.25	6.98		7.76	7.12	6.55
H1 lead leg		strides		16	16	16	16		17	17	17	17	17		149				

2007 IAAF World Athletic Final (Stuttgart, GER)

FINAL date 23-Sep-07

Graubner (2007) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Jesień, Anna (POL) (1978)		time	6.74	11.00	15.36	19.82	24.31		28.87	33.56	38.47	43.41	48.50		54.17	6 / 1			
reaction time	0.290	interval		4.26	4.36	4.46	4.49		4.56	4.69	4.91	4.94	5.09	5.67			13.08	13.74	14.94
		velocity	6.68	8.22	8.03	7.85	7.80		7.68	7.46	7.13	7.09	6.88	7.05	7.38		8.03	7.64	7.03
H1 lead leg		strides																	
Rawlinson, Jana (AUS) (198		time	6.69	10.79	14.93	19.15	23.54		28.08	32.85	37.70	42.84	48.22		54.19	4 / 2			
reaction time	0.271	interval		4.10	4.14	4.22	4.39		4.54	4.77	4.85	5.14	5.38	5.97			12.46	13.70	15.37
		velocity	6.73	8.54	8.45	8.29	7.97		7.71	7.34	7.22	6.81	6.51	6.70	7.38		8.43	7.66	6.83
H1 lead leg		strides																	
Walker, Melaine (JAM) (1983)		time	6.75	10.96	15.25	19.64	24.14		28.68	33.36	38.28	43.25	48.50		54.31	8 / 3			
reaction time	0.261	interval		4.21	4.29	4.39	4.50		4.54	4.68	4.92	4.97	5.25	5.81			12.89	13.72	15.14
		velocity	6.67	8.31	8.16	7.97	7.78		7.71	7.48	7.11	7.04	6.67	6.88	7.37		8.15	7.65	6.94
H1 lead leg		strides																	
Isakova, Yevgeniya (RUS) (19		time	6.59	10.78	15.13	19.55	24.07		28.81	33.69	38.81	43.99	49.16		54.99	2 / 4			
reaction time	0.187	interval		4.19	4.35	4.42	4.52		4.74	4.88	5.12	5.18	5.17	5.83			12.96	14.14	15.47
		velocity	6.83	8.35	8.05	7.92	7.74		7.38	7.17	6.84	6.76	6.77	6.86	7.27		8.10	7.43	6.79
H1 lead leg		strides																	
Williams, Tiffany (USA) (198		time	6.57	10.82	15.10	19.44	23.92		28.52	33.44	38.34	43.51	48.84		55.01	5 / 5			
reaction time	0.273	interval		4.25	4.28	4.34	4.48		4.60	4.92	4.90	5.17	5.33	6.17			12.87	14.00	15.40
		velocity	6.85	8.24	8.18	8.06	7.81		7.61	7.11	7.14	6.77	6.57	6.48	7.27		8.16	7.50	6.82
H1 lead leg		strides																	
Ivanova, Natalya (RUS) (1981		time	6.71	11.13	15.58	20.09	24.78		29.56	34.49	39.53	44.68	49.87		55.60	1 / 6			
reaction time	0.165	interval		4.42	4.45	4.51	4.69		4.78	4.93	5.04	5.15	5.19	5.73			13.38	14.40	15.38
		velocity	6.71	7.92	7.87	7.76	7.46		7.32	7.10	6.94	6.80	6.74	6.98	7.19		7.85	7.29	6.83
H1 lead leg		strides																	
Danvers-Smith, Tasha (GBR		time	6.45	10.59	14.87	19.29	23.79		28.49	33.33	38.41	43.80	49.35		55.76	3 / 7			
reaction time	0.158	interval		4.14	4.28	4.42	4.50		4.70	4.84	5.08	5.39	5.55	6.41			12.84	14.04	16.02
		velocity	6.98	8.45	8.18	7.92	7.78		7.45	7.23	6.89	6.49	6.31	6.24	7.17		8.18	7.48	6.55
H1 lead leg		strides																	
Glover, Sandra (USA) (1968)		time	6.88	11.34	15.84	20.50	25.14		29.88	34.68	39.65	44.70	49.85		55.82	7 / 8			
reaction time	0.332	interval		4.46	4.50	4.66	4.64		4.74	4.80	4.97	5.05	5.15	5.97			13.62	14.18	15.17
		velocity	6.54	7.85	7.78	7.51	7.54		7.38	7.29	7.04	6.93	6.80	6.70	7.17		7.71	7.40	6.92
H1 lead leg		strides																	

2007 IAAF World Championships (Osaka, JPN)

FINAL date 30-Aug-07

Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers

Ae (2008) - IAAF biomechanics team - a booklet of biomechanics data

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Rawlinson, Jana (AUS) (198		time	6.47	10.48	14.55	18.68	22.93		27.38	31.92	36.65	41.71	47.05		53.31	5 / 1			*Ae (2008)*
reaction time	0.153	interval		4.01	4.07	4.13	4.25		4.45	4.54	4.73	5.06	5.34	6.26			12.21	13.24	15.13
		velocity	6.96	8.73	8.60	8.47	8.24		7.87	7.71	7.40	6.92	6.55	6.39	7.50		8.60	7.93	6.94
H1 lead leg	R	strides	23	15	14	14	14		15	15	15	16	17	20	178				
Pechenkina, Yuliya (RUS) (19		time	6.40	10.47	14.60	18.83	23.20		27.60	32.12	36.93	42.00	47.22		53.50	6 / 2			*Ae (2008)*
reaction time	0.148	interval		4.07	4.13	4.23	4.37		4.40	4.52	4.81	5.07	5.22	6.28			12.43	13.29	15.10
		velocity	7.03	8.60	8.47	8.27	8.01		7.95	7.74	7.28	6.90	6.70	6.37	7.48		8.45	7.90	6.95
H1 lead leg	L	strides	22	15	15	15	15		15	15	17	17	17	20	183				

Jesień, Anna (POL) (1978)		time	6.48	10.63	14.95	19.29	23.70	28.23	32.90	37.80	42.75	47.98		53.92	7 / 3				*Ae (2008)*
reaction time	0.176	interval		4.15	4.32	4.34	4.41	4.53	4.67	4.90	4.95	5.23	5.94			12.81	13.61	15.08	
		velocity	6.94	8.43	8.10	8.06	7.94	7.73	7.49	7.14	7.07	6.69	6.73	7.42		8.20	7.71	6.96	
H1 lead leg	L	strides	22	15	15	15	15	15	15	16	16	16	20.5	180.5					
Wilson, Nickiesha (JAM) (19		time	6.36	10.43	14.67	18.97	23.41	27.96	32.73	37.65	42.72	48.04		54.10	4 / 4				*Yasunori (2008)*
reaction time	0.193	interval		4.07	4.24	4.30	4.44	4.55	4.77	4.92	5.07	5.32	6.06			12.61	13.76	15.31	
		velocity	7.08	8.60	8.25	8.14	7.88	7.69	7.34	7.11	6.90	6.58	6.60	7.39		8.33	7.63	6.86	
H1 lead leg	L	strides	23	15	15	15	15	15	15	16	16	17	20	182					
Huang Xiaoxiao (CHN) (1983		time	6.36	10.46	14.66	18.93	23.35	27.97	32.86	37.78	42.89	48.18		54.15	8 / 5				*Yasunori (2008)*
reaction time	0.189	interval		4.10	4.20	4.27	4.42	4.62	4.89	4.92	5.11	5.29	5.97			12.57	13.93	15.32	
		velocity	7.08	8.54	8.33	8.20	7.92	7.58	7.16	7.11	6.85	6.62	6.70	7.39		8.35	7.54	6.85	
H1 lead leg	L	strides	23	15	15	15	15	15	16	16	17	17	20.5	184.5					
Isakova, Yevgeniya (RUS) (19		time	6.46	10.56	14.73	19.03	23.42	28.09	32.91	38.02	43.28	48.57		54.50	3 / 6				*Yasunori (2008)*
reaction time	0.164	interval		4.10	4.17	4.30	4.39	4.67	4.82	5.11	5.26	5.29	5.93			12.57	13.88	15.66	
		velocity	6.97	8.54	8.39	8.14	7.97	7.49	7.26	6.85	6.65	6.62	6.75	7.34		8.35	7.56	6.70	
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	17	17	20.5	186.5					
Williams, Tiffany (USA) (198		time	6.32	10.31	14.38	18.52	23.06	27.55	32.32	37.22	42.33	47.90		54.63	9 / 7				*Yasunori (2008)*
reaction time	0.171	interval		3.99	4.07	4.14	4.54	4.49	4.77	4.90	5.11	5.57	6.73			12.20	13.80	15.58	
		velocity	7.12	8.77	8.60	8.45	7.71	7.80	7.34	7.14	6.85	6.28	5.94	7.32		8.61	7.61	6.74	
H1 lead leg	L	strides	24	15	15	15	16	16	17	17	17	17	21.5	190.5					
Danvers-Smith, Tasha (GBR		time	6.35	10.37	14.62	18.91	23.31	27.85	32.55	37.62	42.81	48.33		54.94	2 / 8				*Yasunori (2008)*
reaction time	0.155	interval		4.02	4.25	4.29	4.40	4.54	4.70	5.07	5.19	5.52	6.61			12.56	13.64	15.78	
		velocity	7.09	8.71	8.24	8.16	7.95	7.71	7.45	6.90	6.74	6.34	6.05	7.28		8.36	7.70	6.65	
H1 lead leg	R	strides	22	15	15	15	15	15	15	17	17	17	21	184					

Semi-Final 3

date 28-Aug-07

Shaver (2008) - hurdle training

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Wilson, Nickiesha (JAM) (19		time	6.40	10.47	14.74	19.11	23.52		28.12	32.96	37.84	42.81	48.04		53.97	7 / 2			
reaction time	0.284	interval		4.07	4.27	4.37	4.41		4.60	4.84	4.88	4.97	5.23	5.93	PB		12.71	13.85	15.08
		velocity	7.03	8.60	8.20	8.01	7.94		7.61	7.23	7.17	7.04	6.69	6.75	7.41		8.26	7.58	6.96
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	20.2	184.2				

Heat 1

date 27-Aug-07

Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.57	10.90	15.44	20.06	24.83		29.77	34.86	40.00	45.26	50.77		57.01	2 / 6			
reaction time	0.202	interval		4.33	4.54	4.62	4.77		4.94	5.09	5.14	5.26	5.51	6.24			13.49	14.80	15.91
		velocity	6.85	8.08	7.71	7.58	7.34		7.09	6.88	6.81	6.65	6.35	6.41	7.02		7.78	7.09	6.60
H1 lead leg		strides		16	16	16	16		16	18	17	17	18		150				

2007 Japanese National Championships (Osaka, JPN)

FINAL

date 01-Jul-07

Yasunori (2008) - race pattern analysis of the world and Japanese top 400m hurdlers

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Kubokura, Satomi (JPN) (19		time	6.56	10.99	15.43	20.00	24.64		29.40	34.28	39.31	44.48	49.93		56.09	/ 1			
reaction time		interval		4.43	4.44	4.57	4.64		4.76	4.88	5.03	5.17	5.45	6.16			13.44	14.28	15.65
		velocity	6.86	7.90	7.88	7.66	7.54		7.35	7.17	6.96	6.77	6.42	6.49	7.13		7.81	7.35	6.71
H1 lead leg		strides		16	16	16	16		17	17	17	17	18		150				

2007 European Cup (Munich, GER)

FINAL

date 23-Jun-07

Graubner (2007) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pechenkina, Yuliya (RUS) (19		time	6.63	10.79	15.04	19.31	23.67		28.13	32.75	37.61	42.63	47.81		54.04	/ 1			
reaction time	0.134	interval		4.16	4.25	4.27	4.36		4.46	4.62	4.86	5.02	5.18	6.23			12.68	13.44	15.06
		velocity	6.79	8.41	8.24	8.20	8.03		7.85	7.58	7.20	6.97	6.76	6.42	7.40		8.28	7.81	6.97
H1 lead leg		strides																	
Jesień, Anna (POL) (1978)		time	6.55	10.86	15.18	19.70	24.17		28.75	33.59	38.52	43.59	48.90		54.88	/ 2			
reaction time	0.207	interval		4.31	4.32	4.52	4.47		4.58	4.84	4.93	5.07	5.31	5.98			13.15	13.89	15.31
		velocity	6.87	8.12	8.10	7.74	7.83		7.64	7.23	7.10	6.90	6.59	6.69	7.29		7.98	7.56	6.86
H1 lead leg		strides																	
Urbansky, Ulrike (GER) (197		time	6.63	10.94	15.33	19.93	24.46		29.21	34.07	39.07	44.13	49.54		55.74	/ 3			
reaction time	0.142	interval		4.31	4.39	4.60	4.53		4.75	4.86	5.00	5.06	5.41	6.20			13.30	14.14	15.47
		velocity	6.79	8.12	7.97	7.61	7.73		7.37	7.20	7.00	6.92	6.47	6.45	7.18		7.89	7.43	6.79
H1 lead leg		strides																	
Jémaa, Dora (FRA) (1985)		time	6.92	11.32	15.91	20.64	25.23		29.91	34.79	39.87	45.03	50.33		56.27	/ 4			
reaction time	0.308	interval		4.40	4.59	4.73	4.59		4.68	4.88	5.08	5.16	5.30	5.94	PB		13.72	14.15	15.54
		velocity	6.50	7.95	7.63	7.40	7.63		7.48	7.17	6.89	6.78	6.60	6.73	7.11		7.65	7.42	6.76
H1 lead leg		strides																	
Hantzí-Neag, Hristína (GRE)		time	6.63	10.90	15.25	19.89	24.59		29.41	34.41	39.57	44.88	50.21		56.44	/ 5			
reaction time	0.184	interval		4.27	4.35	4.64	4.70		4.82	5.00	5.16	5.31	5.33	6.23			13.26	14.52	15.80
		velocity	6.79	8.20	8.05	7.54	7.45		7.26	7.00	6.78	6.59	6.57	6.42	7.09		7.92	7.23	6.65
H1 lead leg		strides																	

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Forcadell, Laia (ESP) (1982)		time	6.93	11.29	15.74	20.42	25.22	30.22	35.42	40.61	45.87	51.21		57.05	/ 6			
reaction time	0.258	interval		4.36	4.45	4.68	4.80	5.00	5.20	5.19	5.26	5.34	5.84	PB		13.49	15.00	15.79
		velocity	6.49	8.03	7.87	7.48	7.29	7.00	6.73	6.74	6.65	6.55	6.85	7.01		7.78	7.00	6.65
H1 lead leg		strides																
Viadzernikava, Krystsina (BL		time	6.78	11.37	15.95	20.71	25.57	30.54	35.90	41.35		52.77		58.99	/ 7			
reaction time	0.250	interval		4.59	4.58	4.76	4.86	4.97	5.36	5.45		11.42	6.22			13.93	15.19	16.87
		velocity	6.64	7.63	7.64	7.35	7.20	7.04	6.53	6.42		6.13	6.43	6.78		7.54	6.91	6.22
H1 lead leg		strides																
Oprya, Maryna (UKR) (1982)		time	6.86	11.17	15.65	20.19	24.71	29.54	34.65	39.95	45.25	50.62						
reaction time	0.203	interval		4.31	4.48	4.54	4.52	4.83	5.11	5.30	5.30	5.37		DQ		13.33	14.46	15.97
		velocity	6.56	8.12	7.81	7.71	7.74	7.25	6.85	6.60	6.60	6.52				7.88	7.26	6.57
H1 lead leg		strides																

2006 Seiko Super Grand Prix (Yokohama, JPN)

FINAL

date 24-Sep-06

Yasunori (2007) - race pattern analysis of top Japanese 400m hurdlers

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Rabchenyuk, Anastasiya (UK	time	6.52	10.74	15.09	19.53	24.28		29.12	34.23	39.42	44.66	49.90		55.81	/ 1			
reaction time	interval		4.22	4.35	4.44	4.75		4.84	5.11	5.19	5.24	5.24	5.91			13.01	14.70	15.67
	velocity	6.90	8.29	8.05	7.88	7.37		7.23	6.85	6.74	6.68	6.68	6.77	7.17		8.07	7.14	6.70
H1 lead leg	strides		15	15	15	16		16	17	17	17	17		145				
Kubokura, Satomi (JPN) (19	time	6.59	10.88	15.38	19.92	24.69		29.48	34.47	39.53	44.72	50.03		56.19	/ 2			
reaction time	interval		4.29	4.50	4.54	4.77		4.79	4.99	5.06	5.19	5.31	6.16			13.33	14.55	15.56
	velocity	6.83	8.16	7.78	7.71	7.34		7.31	7.01	6.92	6.74	6.59	6.49	7.12		7.88	7.22	6.75
H1 lead leg	strides		16	16	16	16		16	17	17	17	17		148				

2006 IAAF World Junior Championships (Beijing, CHN)

Semi-Final 1

date 16-Aug-06

Beckenham (2006) - Establishing an ideal stride pattern for a potential elite female 400m hurdler

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Boden, Lauren (AUS) (1988)	time	6.42	10.75	15.22	19.72	24.44		29.34	34.40	39.34	45.18	50.97		58.05	6 / 7			
reaction time	0.172	interval		4.33	4.47	4.50	4.72	4.90	5.06	4.94	5.84	5.79	7.08			13.30	14.68	16.57
		velocity	7.01	8.08	7.83	7.78	7.42	7.14	6.92	7.09	5.99	6.04	5.65	6.89		7.89	7.15	6.34
H1 lead leg		strides																

Heat 1

date 15-Aug-06

Beckenham (2006) - Establishing an ideal stride pattern for a potential elite female 400m hurdler

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Boden, Lauren (AUS) (1988)	time	6.66	10.95	15.40	19.95	24.54		29.29	34.31	39.67	45.23	51.10		57.95	3 / 2			
reaction time	0.194	interval		4.29	4.45	4.55	4.59	4.75	5.02	5.36	5.56	5.87	6.85			13.29	14.36	16.79
		velocity	6.76	8.16	7.87	7.69	7.63	7.37	6.97	6.53	6.29	5.96	5.84	6.90		7.90	7.31	6.25
H1 lead leg		strides																

2006 European Championships (Göteborg, SWE)

FINAL

date 09-Aug-06

Behm (2006) - Göteborg 2006: Le quatrache

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Isakova, Yevgeniya (RUS) (19	time	6.5	10.6	14.7	19.1	23.5		28.0	33.0	38.0	43.0	48.2		53.93	6 / 1			
reaction time	interval		4.1	4.1	4.4	4.4		4.5	5.0	5.0	5.0	5.2	5.73	PB		12.60	13.90	15.20
	velocity	6.92	8.54	8.54	7.95	7.95		7.78	7.00	7.00	7.00	6.73	6.98	7.42		8.33	7.55	6.91
H1 lead leg L	strides	21	15	15	15	15		16	16	17	17	17	20	184				
Halkiá, Faní (GRE) (1979)	time	6.4	10.6	14.7	19.1	23.5		28.1	32.8	37.9	42.8	48.0		54.02	4 / 2			
reaction time	interval		4.2	4.1	4.4	4.4		4.6	4.7	5.1	4.9	5.2	6.02			12.70	13.70	15.20
	velocity	7.03	8.33	8.54	7.95	7.95		7.61	7.45	6.86	7.14	6.73	6.64	7.40		8.27	7.66	6.91
H1 lead leg L	strides	22	15	15	15	15		15	16	16	16	17	20	182				
Tereschuk-Antipova, Tetiana	time	6.4	10.6	15.0	19.5	24.1		28.7	33.5	38.4	43.3	48.5		54.55	3 / 3			
reaction time	interval		4.2	4.4	4.5	4.6		4.6	4.8	4.9	4.9	5.2	6.05			13.10	14.00	15.00
	velocity	7.03	8.33	7.95	7.78	7.61		7.61	7.29	7.14	7.14	6.73	6.61	7.33		8.02	7.50	7.00
H1 lead leg L	strides	22	15	15	15	15		15	16	16	16	16	20.5	181.5				
Marx, Claudia (GER) (1978)	time	6.4	10.6	14.7	19.2	23.6		28.3	33.2	38.3	43.5	48.8		54.99	5 / 4			
reaction time	interval		4.2	4.1	4.5	4.4		4.7	4.9	5.1	5.2	5.3	6.19			12.80	14.00	15.60
	velocity	7.03	8.33	8.54	7.78	7.95		7.45	7.14	6.86	6.73	6.60	6.46	7.27		8.20	7.50	6.73
H1 lead leg L	strides	22	15	15	15	15		16	16	17	17	17	21	186				
Ivanova, Natalya (RUS) (1981	time	6.5	11.0	15.5	20.0	24.6		29.4	34.2	39.1	44.2	49.2		55.04	2 / 5			
reaction time	interval		4.5	4.5	4.5	4.6		4.8	4.8	4.9	5.1	5.0	5.84			13.50	14.20	15.00
	velocity	6.92	7.78	7.78	7.78	7.61		7.29	7.29	7.14	6.86	7.00	6.85	7.27		7.78	7.39	7.00
H1 lead leg L	strides	23	15	15	15	15		15	15	15	15	15	18	176				
Jesień, Anna (POL) (1978)	time	6.4	10.7	14.9	19.4	24.1		28.8	33.5	38.5	43.6	49.0		55.16	7 / 6			
reaction time	interval		4.3	4.2	4.5	4.7		4.7	4.7	5.0	5.1	5.4	6.16			13.00	14.10	15.50
	velocity	7.03	8.14	8.33	7.78	7.45		7.45	7.45	7.00	6.86	6.48	6.49	7.25		8.08	7.45	6.77
H1 lead leg L	strides	23	15	15	15	15		15	16	16	16	17	20.5	183.5				
Danvers, Tasha (GBR) (1977)	time	6.4	10.5	14.7	19.3	23.9		28.7	33.6	38.6	43.8	49.3		55.56	1 / 7			
reaction time	interval		4.1	4.2	4.6	4.6		4.8	4.9	5.0	5.2	5.5	6.26			12.90	14.30	15.70

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	7.03	8.54	8.33	7.61	7.61	7.29	7.14	7.00	6.73	6.36	6.39	7.20		8.14	7.34	6.69
H1 lead leg	R	strides	22	14	14	15	15	15	15	15	16	17	20	178				
Rabchenyuk, Anastasiya (UK		time	6.4	10.5	14.7	19.3	24.0	28.9	33.8	38.9	44.2	49.7		55.74	8 / 8			
reaction time		interval		4.1	4.2	4.6	4.7	4.9	4.9	5.1	5.3	5.5	6.04			12.90	14.50	15.90
		velocity	7.03	8.54	8.33	7.61	7.45	7.14	7.14	6.86	6.60	6.36	6.62	7.18		8.14	7.24	6.60
H1 lead leg	R	strides	22	15	15	15	16	16	16	17	17	17		166				

2006 Commonwealth Games (Melbourne, AUS)

Heat 5

date 22-Mar-06

Beckenham (2006) - Establishing an ideal stride pattern for a potential elite female 400m hurdler

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Boden, Lauren (AUS) (1988)	time	6.76	11.12	15.72	20.32	25.08		29.88	35.00	40.36	45.88	51.38		57.77	/ 5			
reaction time	interval		4.36	4.60	4.60	4.76		4.80	5.12	5.36	5.52	5.50	6.39			13.56	14.68	16.38
	velocity	6.66	8.03	7.61	7.61	7.35		7.29	6.84	6.53	6.34	6.36	6.26	6.92		7.74	7.15	6.41
H1 lead leg	strides																	

2006 Telstra A Series (Canberra, AUS)

FINAL

date 26-Jan-06

Beckenham (2006) - Establishing an ideal stride pattern for a potential elite female 400m hurdler

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Boden, Lauren (AUS) (1988)	time	6.78	11.18	15.66	20.26	24.96		29.80	34.76	40.01	45.36	50.96		57.45	/ 3			
reaction time	interval		4.40	4.48	4.60	4.70		4.84	4.96	5.25	5.35	5.60	6.49	PB		13.48	14.50	16.20
	velocity	6.64	7.95	7.81	7.61	7.45		7.23	7.06	6.67	6.54	6.25	6.16	6.96		7.79	7.24	6.48
H1 lead leg	strides																	

2005 Chinese National Games (Nanjing, CHN)

FINAL

date 12-Oct-05

Wang (2016) - hurdle rhythm characteristic analysis and athletic training considerations

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huang Xiaoxiao (CHN) (1983	time	6.30	10.65	14.90	19.33	23.81		28.47	33.25	38.20	43.16	48.23		54.18	/ 1			
reaction time	interval		4.35	4.25	4.43	4.48		4.66	4.78	4.95	4.96	5.07	5.95	PB		13.03	13.92	14.98
	velocity	7.14	8.05	8.24	7.90	7.81		7.51	7.32	7.07	7.06	6.90	6.72	7.38		8.06	7.54	7.01
H1 lead leg	strides	23	15	15	15	15		15	17	17	17	17		166				
Wang Xing (CHN) (1986)	time	6.39	10.53	14.73	19.06	23.47		28.03	32.75	37.65	42.75	48.00		54.40	/ 2			
reaction time	interval		4.14	4.20	4.33	4.41		4.56	4.72	4.90	5.10	5.25	6.40	WJR / WYB18		12.67	13.69	15.25
	velocity	7.04	8.45	8.33	8.08	7.94		7.68	7.42	7.14	6.86	6.67	6.25	7.35		8.29	7.67	6.89
H1 lead leg	strides	23	15	15	15	15		16	16	16	17	17		165				

2005 IAAF World Championships (Helsinki, FIN)

FINAL

date 13-Aug-05

Behm (2005) - Helsinki 2005; Les haies - La revanche des lutins

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pechenkina, Yuliya (RUS) (19		time	6.3	10.5	14.8	18.8	23.1		27.5	31.9	36.6	41.6	46.6		52.90	4 / 1			
reaction time	0.144	interval		4.2	4.3	4.0	4.3		4.4	4.4	4.7	5.0	5.0	6.30			12.50	13.10	14.70
		velocity	7.14	8.33	8.14	8.75	8.14		7.95	7.95	7.45	7.00	7.00	6.35	7.56		8.40	8.02	7.14
H1 lead leg	L	strides	22	15	15	15	15		15	15	17	17	17	20	183				
Demus, Lashinda (USA) (198		time	6.2	10.4	14.6	18.8	23.1		27.7	32.2	36.8	41.8	46.9		53.27	8 / 2			
reaction time	0.176	interval		4.2	4.2	4.2	4.3		4.6	4.5	4.6	5.0	5.1	6.37	PB		12.60	13.40	14.70
		velocity	7.26	8.33	8.33	8.33	8.14		7.61	7.78	7.61	7.00	6.86	6.28	7.51		8.33	7.84	7.14
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Glover, Sandra (USA) (1968)		time	6.3	10.5	14.8	19.2	23.5		28.0	32.5	37.2	42.1	47.1		53.32	3 / 3			
reaction time	0.200	interval		4.2	4.3	4.4	4.3		4.5	4.5	4.7	4.9	5.0	6.22	PB		12.90	13.30	14.60
		velocity	7.14	8.33	8.14	7.95	8.14		7.78	7.78	7.45	7.14	7.00	6.43	7.50		8.14	7.89	7.19
H1 lead leg	L	strides	23	16	16	16	16		16	16	17	17	17	21	191				
Jesien, Anna (POL) (1978)		time	6.3	10.6	14.8	19.2	23.6		28.2	32.9	37.9	42.8	48.0		54.17	5 / 4			
reaction time	0.184	interval		4.3	4.2	4.4	4.4		4.6	4.7	5.0	4.9	5.2	6.17			12.90	13.70	15.10
		velocity	7.14	8.14	8.33	7.95	7.95		7.61	7.45	7.00	7.14	6.73	6.48	7.38		8.14	7.66	6.95
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	16		161				
Huang Xiaoxiao (CHN) (1983		time	6.3	10.5	14.8	19.2	23.8		28.5	33.5	38.6	43.5	48.6		54.57	6 / 5			
reaction time	0.172	interval		4.2	4.3	4.4	4.6		4.7	5.0	5.1	4.9	5.1	5.97			12.90	14.30	15.10
		velocity	7.14	8.33	8.14	7.95	7.61		7.45	7.00	6.86	7.14	6.86	6.70	7.33		8.14	7.34	6.95
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16		162				
Blackett, Andrea (BAR) (197		time	6.3	10.5	14.7	19.1	23.7		28.3	33.1	38.2	43.4	48.8		55.06	2 / 6			
reaction time	0.146	interval		4.2	4.2	4.4	4.6		4.6	4.8	5.1	5.2	5.4	6.26			12.80	14.00	15.70
		velocity	7.14	8.33	8.33	7.95	7.61		7.61	7.29	6.86	6.73	6.48	6.39	7.26		8.20	7.50	6.69
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16	17		164				
Tereschuk-Antipova, Tetiana		time	6.4	10.7	15.2	19.7	24.2		28.8	33.6	38.5	43.6	48.9		55.09	7 / 7			
reaction time	0.209	interval		4.3	4.5	4.5	4.5		4.6	4.8	4.9	5.1	5.3	6.19			13.30	13.90	15.30
		velocity	7.03	8.14	7.78	7.78	7.78		7.61	7.29	7.14	6.86	6.60	6.46	7.26		7.89	7.55	6.86
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	16		161				
Pskit, Malgorzata (POL) (197		time	6.3	10.7	15.2	19.7	24.2		28.8	33.4	38.5	43.6	48.9		55.58	1 / 8			
reaction time	0.181	interval		4.4	4.5	4.5	4.5		4.6	4.6	5.1	5.1	5.3	6.68			13.40	13.70	15.50
		velocity	7.14	7.95	7.78	7.78	7.78		7.61	7.61	6.86	6.86	6.60	5.99	7.20		7.84	7.66	6.77

H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	16		160				

2005 IAAF World Youth Championships (Marrakech, MAR)

Semi-Final 1

date 14-Jul-05

Beckenham (2006) - Establishing an ideal stride pattern for a potential elite female 400m hurdler

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Boden, Lauren (AUS) (1988)		time	6.68	11.19	15.70	20.39	25.23		30.21	35.42	40.86	46.27	51.81		58.19	3 / 1			
reaction time	0.170	interval		4.51	4.51	4.69	4.84		4.98	5.21	5.44	5.41	5.54	6.38	PB		13.71	15.03	16.39
		velocity	6.74	7.76	7.76	7.46	7.23		7.03	6.72	6.43	6.47	6.32	6.27	6.87		7.66	6.99	6.41
H1 lead leg		strides																	

2005 Osaka Grand Prix (Osaka, JPN)

FINAL

date 07-May-05

Yasunori (2006) - race pattern analysis of top Japanese 400m hurdlers

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Blackett, Andrea (BAR) (197		time	6.42	10.59	15.06	19.63	24.35		29.17	34.16	39.47	44.96	50.23		56.15	/ 1			
reaction time		interval		4.17	4.47	4.57	4.72		4.82	4.99	5.31	5.49	5.27	5.92			13.21	14.53	16.07
		velocity	7.01	8.39	7.83	7.66	7.42		7.26	7.01	6.59	6.38	6.64	6.76	7.12		7.95	7.23	6.53
H1 lead leg		strides		15	15	15	15		16	16	16	17	18		143				
Kubokura, Satomi (JPN) (19		time	6.67	11.16	15.75	20.44	25.34		30.19	35.14	40.13	45.42	50.89		57.10	/ 2			
reaction time		interval		4.49	4.59	4.69	4.90		4.85	4.95	4.99	5.29	5.47	6.21			13.77	14.70	15.75
		velocity	6.75	7.80	7.63	7.46	7.14		7.22	7.07	7.01	6.62	6.40	6.44	7.01		7.63	7.14	6.67
H1 lead leg		strides		16	16	15	17		17	17	17	17	18		150				
Yoshida, Makiko (JPN) (1976		time	6.76	11.18	15.77	20.51	25.43		30.44	35.46	40.53	45.74	51.18		57.29	/ 3			
reaction time		interval		4.42	4.59	4.74	4.92		5.01	5.02	5.07	5.21	5.44	6.11			13.75	14.95	15.72
		velocity	6.66	7.92	7.63	7.38	7.11		6.99	6.97	6.90	6.72	6.43	6.55	6.98		7.64	7.02	6.68
H1 lead leg		strides		16	16	16	16		17	17	17	17	18		150				

2005 Australian National Championships (Sydney, AUS)

FINAL

date 06-Mar-05

Beckenham (2006) - Establishing an ideal stride pattern for a potential elite female 400m hurdler

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Boden, Lauren (AUS) (1988)		time	7.32	11.98	16.68	21.50	26.48		31.58	36.82	42.04	47.34	52.68		58.59	/ 1			
reaction time		interval		4.66	4.70	4.82	4.98		5.10	5.24	5.22	5.30	5.34	5.91	PB		14.18	15.32	15.86
		velocity	6.15	7.51	7.45	7.26	7.03		6.86	6.68	6.70	6.60	6.55	6.77	6.83		7.40	6.85	6.62
H1 lead leg		strides																	

2004 Seiko Super Grand Prix (Yokohama, JPN)

FINAL

date 23-Sep-04

Yasunori (2005) - race pattern analysis of top Japanese 400m hurdlers

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Glover, Sandra (USA) (1968)		time	6.61	10.91	15.26	19.73	24.22		28.82	33.47	38.34	43.48	48.74		54.86	/ 1			
reaction time		interval		4.30	4.35	4.47	4.49		4.60	4.65	4.87	5.14	5.26	6.12			13.12	13.74	15.27
		velocity	6.81	8.14	8.05	7.83	7.80		7.61	7.53	7.19	6.81	6.65	6.54	7.29		8.00	7.64	6.88
H1 lead leg		strides		16	16	16	16		16	16	17	17	17		147				
Taylor, Brenda (USA) (1979)		time	6.38	10.60	15.04	19.53	24.10		28.79	33.63	38.69	44.10	49.56		55.90	/ 2			
reaction time		interval		4.22	4.44	4.49	4.57		4.69	4.84	5.06	5.41	5.46	6.34			13.15	14.10	15.93
		velocity	7.05	8.29	7.88	7.80	7.66		7.46	7.23	6.92	6.47	6.41	6.31	7.16		7.98	7.45	6.59
H1 lead leg		strides		15	15	15	15		15	16	16	17	17		141				
Alimzhanova, Natalya (KAZ)		time	6.62	10.82	15.17	19.64	24.26		29.13	34.12	39.39	44.80	50.26		56.53	/ 3			
reaction time		interval		4.20	4.35	4.47	4.62		4.87	4.99	5.27	5.41	5.46	6.27			13.02	14.48	16.14
		velocity	6.80	8.33	8.05	7.83	7.58		7.19	7.01	6.64	6.47	6.41	6.38	7.08		8.06	7.25	6.51
H1 lead leg		strides		15	15	15	15		16	16	16	16	16		140				
Kubokura, Satomi (JPN) (19		time	6.69	11.28	15.97	20.72	25.66		30.63	35.67	40.81	46.08	51.40		57.27	/ 4			
reaction time		interval		4.59	4.69	4.75	4.94		4.97	5.04	5.14	5.27	5.32	5.87	PB		14.03	14.95	15.73
		velocity	6.73	7.63	7.46	7.37	7.09		7.04	6.94	6.81	6.64	6.58	6.81	6.98		7.48	7.02	6.68
H1 lead leg		strides		16	16	17	17		17	17	17	17	17		151				
Yoshida, Makiko (JPN) (1976		time	6.76	11.13	15.72	20.39	25.18		30.12	35.13	40.32	45.58	51.05		57.32	/ 5			
reaction time		interval		4.37	4.59	4.67	4.79		4.94	5.01	5.19	5.26	5.47	6.27			13.63	14.74	15.92
		velocity	6.66	8.01	7.63	7.49	7.31		7.09	6.99	6.74	6.65	6.40	6.38	6.98		7.70	7.12	6.60
H1 lead leg		strides		16	16	16	16		17	17	17	17	18		150				

2004 Olympic Games (Athîna, GRE)

Behm (2005) - Athénes 2004: Les Haies Basses

FINAL

date 25-Aug-04

Ruiz (2004) - las carreras con vallas de juegos olimpicos de atenas '04

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Halkiá, Faní (GRE) (1979)		time	6.37	10.52	14.61	18.79	23.19		27.65	32.12	36.86	41.89	46.98		52.82	4 / 1			*Ruiz (2004)*
reaction time	0.295	interval		4.15	4.09	4.18	4.40		4.46	4.47	4.74	5.03	5.09	5.84			12.42	13.33	14.86
		velocity	7.06	8.43	8.56	8.37	7.95		7.85	7.83	7.38	6.96	6.88	6.85	7.57		8.45	7.88	7.07
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Tîrlea, Ionela (ROU) (1976)		time	6.40	10.56	14.61	18.88	23.09		27.62	32.30	37.17	42.21	47.30		53.38	3 / 2			*Ruiz (2004)*
reaction time	0.292	interval		4.16	4.05	4.27	4.21		4.53	4.68	4.87	5.04	5.09	6.08			12.48	13.42	15.00
		velocity	7.03	8.41	8.64	8.20	8.31		7.73	7.48	7.19	6.94	6.88	6.58	7.49		8.41	7.82	7.00
H1 lead leg	L	strides	22	15	15	15	15		16	16	17	17	17	21	186				
Tereschuk-Antipova, Tetiana		time	6.3	10.3	14.4	18.7	23.1		27.6	32.1	37.1	42.1	47.3		53.44	1 / 3			*Behm (2005)*

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time	0.312	interval		4.0	4.1	4.3	4.4	4.5	4.5	5.0	5.0	5.2	6.14			12.40	13.40	15.20
		velocity	7.14	8.75	8.54	8.14	7.95	7.78	7.78	7.00	7.00	6.73	6.51	7.49		8.47	7.84	6.91
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	16	16	20	181				
Johnson, Sheena (USA) (19		time	6.4	10.5	14.7	19.1	23.6	28.2	32.9	37.7	42.6	47.7		53.83	8 / 4			*Behm (2005)*
reaction time	0.408	interval		4.1	4.2	4.4	4.5	4.6	4.7	4.8	4.9	5.1	6.13			12.70	13.80	14.80
		velocity	7.03	8.54	8.33	7.95	7.78	7.61	7.45	7.29	7.14	6.86	6.53	7.43		8.27	7.61	7.09
H1 lead leg	L	strides	23	15	15	15	15	15	15	15	16	16		160				
Pittman, Jana (AUS) (1982)		time	6.40	10.50	14.57	18.80	23.10	27.57	32.21	37.02	42.19	47.47		53.92	5 / 5			*Ruiz (2004)*
reaction time	0.248	interval		4.10	4.07	4.23	4.30	4.47	4.64	4.81	5.17	5.28	6.45			12.40	13.41	15.26
		velocity	7.03	8.54	8.60	8.27	8.14	7.83	7.54	7.28	6.77	6.63	6.20	7.42		8.47	7.83	6.88
H1 lead leg	L	strides	22	14	14	14	14	14	15	15	16	16	18.5	172.5				
Bikert, Yekaterina (RUS) (19		time	6.6	10.7	14.9	19.4	23.9	28.6	33.3	38.3	43.3	48.5		54.18	7 / 6			*Behm (2005)*
reaction time	0.322	interval		4.1	4.2	4.5	4.5	4.7	4.7	5.0	5.0	5.2	5.68			12.80	13.90	15.20
		velocity	6.82	8.54	8.33	7.78	7.78	7.45	7.45	7.00	7.00	6.73	7.04	7.38		8.20	7.55	6.91
H1 lead leg	L	strides	21	14	14	14	14	15	15	15	15	15		152				
Taylor, Brenda (USA) (1979)		time	6.07	10.21	14.47	18.69	23.10	27.70	32.51	37.56	42.87	48.30		54.97	2 / 7			*Ruiz (2004)*
reaction time	0.184	interval		4.14	4.26	4.22	4.41	4.60	4.81	5.05	5.31	5.43	6.67			12.62	13.82	15.79
		velocity	7.41	8.45	8.22	8.29	7.94	7.61	7.28	6.93	6.59	6.45	6.00	7.28		8.32	7.60	6.65
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	17	17	21	187				
Pechenkina, Yuliya (RUS) (19		time	6.4	10.5	14.7	18.9	23.3	27.9	32.5	37.7	42.9	48.5		55.79	6 / 8			*Behm (2005)*
reaction time	0.244	interval		4.1	4.2	4.2	4.4	4.6	4.6	5.2	5.2	5.6	7.29			12.50	13.60	16.00
		velocity	7.03	8.54	8.33	8.33	7.95	7.61	7.61	6.73	6.73	6.25	5.49	7.17		8.40	7.72	6.56
H1 lead leg	L	strides	22	15	15	15	15	15	15	17	17	17		163				

2004 USA Olympic Trials (Sacramento, CA)

FINAL date 11-Jul-04 *Lyle - miscellaneous coaching notes*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Johnson, Sheena (USA) (19		time	6.11	10.20	14.40	18.69	23.21		27.72	32.50	37.24	42.16	47.03		52.95	6 / 1			
reaction time		interval		4.09	4.20	4.29	4.52		4.51	4.78	4.74	4.92	4.87	5.92	PB		12.58	13.81	14.53
		velocity	7.36	8.56	8.33	8.16	7.74		7.76	7.32	7.38	7.11	7.19	6.76	7.55		8.35	7.60	7.23
H1 lead leg	L	strides	24	15	15	15	15		15	15	15	15	15	19	178				
Taylor, Brenda (USA) (1979)			no information available											PB	53.36	5 / 2			
Demus, Lashinda (USA) (19		time	6.00	9.99	14.13	18.39	22.76		27.16	31.66	36.35	41.24	46.80		53.43	4 / 3			
reaction time		interval		3.99	4.14	4.26	4.37		4.40	4.50	4.69	4.89	5.56	6.63	PB		12.39	13.27	15.14
		velocity	7.50	8.77	8.45	8.22	8.01		7.95	7.78	7.46	7.16	6.29	6.03	7.49		8.47	7.91	6.94
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	18	20	182				
Glover, Sandra (USA) (1968)			no information available												53.64	3 / 4			
McIntosh, Raasin (USA) (1982)			no information available											PB	54.16	1 / 5			
Smith, Shauna (USA) (1983)			no information available												54.42	7 / 6			
Allen, Patrina (USA) (1975)			no information available											PB	54.93	8 / 7			
Addy, Megan (USA) (1978)			no information available												DQ	2 / --			

2004 Modesto Relays (Modesto, CA)

FINAL date 08-May-04 *Henson (2004) USATF OTC sport science*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Addy, Megan (USA) (1978)		time	6.06	10.92	15.38	19.91	24.65		29.47	34.48	39.53	44.87	50.33		56.59	/ 1			
reaction time		interval		4.86	4.46	4.53	4.74		4.82	5.01	5.05	5.34	5.46	6.26			13.85	14.57	15.85
		velocity	7.43	7.20	7.85	7.73	7.38		7.26	6.99	6.93	6.55	6.41	6.39	7.07		7.58	7.21	6.62
H1 lead leg		strides																	

2004 UCLA (Los Angeles, CA)

FINAL date 10-Apr-04 *Henson (2004) USATF OTC sport science*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Addy, Megan (USA) (1978)		time	7.10	11.22	15.51	19.86	24.35		28.97	33.66	38.67	43.96	49.41		56.13	/ 2			
reaction time		interval		4.12	4.29	4.35	4.49		4.62	4.69	5.01	5.29	5.45	6.72	PB		12.76	13.80	15.75
		velocity	6.34	8.50	8.16	8.05	7.80		7.58	7.46	6.99	6.62	6.42	5.95	7.13		8.23	7.61	6.67
H1 lead leg		strides																	

2004 SDSU (San Diego, CA)

FINAL date 20-Mar-04 *Henson (2004) USATF OTC sport science*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Taylor, Brenda (USA) (1978)		time	6.35	10.67	15.18	19.73	24.35		29.14	33.95	39.00	44.19	49.53		55.65	/ 1			
reaction time		interval		4.32	4.51	4.55	4.62		4.79	4.81	5.05	5.19	5.34	6.12			13.38	14.22	15.58
		velocity	7.09	8.10	7.76	7.69	7.58		7.31	7.28	6.93	6.74	6.55	6.54	7.19		7.85	7.38	6.74
H1 lead leg		strides																	

2003 IAAF World Championships (Paris, FRA)

FINAL date 28-Aug-03 *Behm (2003) - Paris 2003:Le quatrache masculn - féminin*

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pittman, Jana (AUS) (1982)		time	6.3	10.3	14.6	19.0	23.4		28.0	32.6	37.4	42.3	47.4		53.22	4 / 1			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time	0.179	interval		4.0	4.3	4.4	4.4	4.6	4.6	4.8	4.9	5.1	5.82	PB		12.70	13.60	14.80
		velocity	7.14	8.75	8.14	7.95	7.95	7.61	7.61	7.29	7.14	6.86	6.87	7.52		8.27	7.72	7.09
H1 lead leg	R	strides	22	13	13	13	13	15	15	15	15	16	19	169				
Glover, Sandra (USA) (1968)		time	6.3	10.3	14.6	19.1	23.6	28.1	32.8	37.5	42.5	47.5		53.65	6 / 2			
reaction time	2.060	interval		4.0	4.3	4.5	4.5	4.5	4.7	4.7	5.0	5.0	6.15			12.80	13.70	14.70
		velocity	7.14	8.75	8.14	7.78	7.78	7.78	7.45	7.45	7.00	7.00	6.50	7.46		8.20	7.66	7.14
H1 lead leg	L	strides	23	16	16	16	16	16	16	17	17	17	20	190				
Pechonkina, Yuliya (RUS) (1!		time	6.3	10.3	14.3	18.4	22.7	27.1	31.6	36.6	41.7	47.1		53.71	5 / 3			
reaction time	0.128	interval		4.0	4.0	4.1	4.3	4.4	4.5	5.0	5.1	5.4	6.61			12.10	13.20	15.50
		velocity	7.14	8.75	8.75	8.54	8.14	7.95	7.78	7.00	6.86	6.48	6.05	7.45		8.68	7.95	6.77
H1 lead leg	L	strides	22	15	15	15	15	15	15	17	17	17	19.5	182.5				
Tîrlea, Ionela (ROU) (1976)		time	6.2	10.2	14.4	18.8	23.2	27.9	32.8	37.9	43.2	48.4		54.41	3 / 4			
reaction time	0.170	interval		4.0	4.2	4.4	4.4	4.7	4.9	5.1	5.3	5.2	6.01			12.60	14.00	15.60
		velocity	7.26	8.75	8.33	7.95	7.95	7.45	7.14	6.86	6.60	6.73	6.66	7.35		8.33	7.50	6.73
H1 lead leg	L	strides	22	13	13	13	13	16	16	17	17	17	20	177				
Tereschuk-Antipova, Tetiana		time	6.4	10.6	14.8	19.2	23.6	28.3	33.0	38.0	43.2	48.5		54.61	2 / 5			
reaction time	0.230	interval		4.2	4.2	4.4	4.4	4.7	4.7	5.0	5.2	5.3	6.11			12.80	13.80	15.50
		velocity	7.03	8.33	8.33	7.95	7.95	7.45	7.45	7.00	6.73	6.60	6.55	7.32		8.20	7.61	6.77
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	16	16	20	179				
Blackett, Andrea (BAR) (197		time	6.2	10.2	14.5	19.0	23.6	28.2	33.0	38.3	43.5	48.8		54.79	7 / 6			
reaction time	0.149	interval		4.0	4.3	4.5	4.6	4.6	4.8	5.3	5.2	5.3	5.99			12.80	14.00	15.80
		velocity	7.26	8.75	8.14	7.78	7.61	7.61	7.29	6.60	6.73	6.60	6.68	7.30		8.20	7.50	6.65
H1 lead leg	L	strides		13	13	13	13	16	16	16	16	17	19.5	152.5				
Meißner, Heike (GER) (1970)		time	6.5	10.8	15.1	19.6	24.2	28.9	33.7	38.8	44.2	49.6		55.60	1 / 7			
reaction time	0.233	interval		4.3	4.3	4.5	4.6	4.7	4.8	5.1	5.4	5.4	6.00			13.10	14.10	15.90
		velocity	6.92	8.14	8.14	7.78	7.61	7.45	7.29	6.86	6.48	6.48	6.67	7.19		8.02	7.45	6.60
H1 lead leg	R	strides	23	13	13	13	13	13	16	16	16	17		153				
Febbraio, Surita (RSA) (1973		time	6.4	10.5	14.7	19.2	23.7	28.4	33.2	38.1	43.4	49.0		55.90	8 / 8			
reaction time	0.168	interval		4.1	4.2	4.5	4.5	4.7	4.8	4.9	5.3	5.6	6.90			12.80	14.00	15.80
		velocity	7.03	8.54	8.33	7.78	7.78	7.45	7.29	7.14	6.60	6.25	5.80	7.16		8.20	7.50	6.65
H1 lead leg	L	strides	23	15	15	16	16	17	17	18	18	19	21	195				

2003 Russian National Championships (Tula, RUS)

FINAL date 08-Aug-03

Vazel (2019) - statistical analysis and historical context of the new 400H world record

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pechonkina, Yuliya (RUS) (1!		time	6.3	10.3	14.3	18.5	22.9		27.4	31.9	36.5	41.2	46.3		52.34	4 / 1			
reaction time		interval		4.0	4.0	4.2	4.4		4.5	4.5	4.6	4.7	5.1	6.04	WR		12.20	13.40	14.40
		velocity	7.14	8.75	8.75	8.33	7.95		7.78	7.78	7.61	7.45	6.86	6.62	7.64		8.61	7.84	7.29
H1 lead leg	L	strides	22	15	15	15	15		15	15	17	17	17	20.2	183.2				

2003 USATF National Junior Championship (Palo Alto, CA)

FINAL date 22-Jun-03

USATF Women's Sprint Development (2003)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Watkins, Tawana (USA) (198		time	6.59	11.08	15.80	20.42	25.31		30.44	35.62	40.97	46.23	51.90		58.38	6 / 1			
reaction time		interval		4.49	4.72	4.62	4.89		5.13	5.18	5.35	5.26	5.67	6.48			13.83	15.20	16.28
		velocity	6.83	7.80	7.42	7.58	7.16		6.82	6.76	6.54	6.65	6.17	6.17	6.85		7.59	6.91	6.45
H1 lead leg		strides																	
Hill, MacKenzie (USA) (1986)		time	6.61	10.91	15.43	20.05	25.13		30.74	36.15	41.58	46.86	52.37		58.39	7 / 2			
reaction time		interval		4.30	4.52	4.62	5.08		5.61	5.41	5.43	5.28	5.51	6.02	PB		13.44	16.10	16.22
		velocity	6.81	8.14	7.74	7.58	6.89		6.24	6.47	6.45	6.63	6.35	6.64	6.85		7.81	6.52	6.47
H1 lead leg		strides																	
Talbot, Melissa (USA) (1984)		time	6.67	11.09	15.67	20.27	25.14		30.30	35.87	41.27	46.76	52.42		58.69	5 / 3			
reaction time		interval		4.42	4.58	4.60	4.87		5.16	5.57	5.40	5.49	5.66	6.27	PB		13.60	15.60	16.55
		velocity	6.75	7.92	7.64	7.61	7.19		6.78	6.28	6.48	6.38	6.18	6.38	6.82		7.72	6.73	6.34
H1 lead leg		strides																	
Smith, Christina (USA) (198!		time	6.42	10.76	15.24	19.90	24.93		30.28	35.84	41.22	46.73	52.27		59.01	9 / 4			
reaction time		interval		4.34	4.48	4.66	5.03		5.35	5.56	5.38	5.51	5.54	6.74	PB		13.48	15.94	16.43
		velocity	7.01	8.06	7.81	7.51	6.96		6.54	6.29	6.51	6.35	6.32	5.93	6.78		7.79	6.59	6.39
H1 lead leg		strides																	
Young, Natalie (USA)		time	6.76	11.19	15.88	20.45	25.23		30.36	35.94	41.89	47.85			60.99	2 / 5			
reaction time		interval		4.43	4.69	4.57	4.78		5.13	5.58	5.95	5.96					13.69	15.49	
		velocity	6.66	7.90	7.46	7.66	7.32		6.82	6.27	5.88	5.87			6.56		7.67	6.78	
H1 lead leg		strides																	
Gooden, Dianna (USA) (198!		time	6.81	11.34	16.08	20.99	26.06		31.33	36.95	42.80	48.78			61.47	4 / 6			
reaction time		interval		4.53	4.74	4.91	5.07		5.27	5.62	5.85	5.98					14.18	15.96	
		velocity	6.61	7.73	7.38	7.13	6.90		6.64	6.23	5.98	5.85			6.51		7.40	6.58	
H1 lead leg		strides																	

Hill, Sierra (USA) (1986)	time	7.07	11.83	16.67	21.64	26.76		32.26	37.85	43.53	49.20			61.48	3 / 7			
reaction time	interval		4.76	4.84	4.97	5.12		5.50	5.59	5.68	5.67					14.57	16.21	
	velocity	6.36	7.35	7.23	7.04	6.84		6.36	6.26	6.16	6.17			6.51		7.21	6.48	
H1 lead leg	strides																	
Hardiway, Korey (USA) (198	time	7.01	11.71	16.58	21.41	26.48		32.08	38.04	44.06	49.85			63.20	1 / 8			
reaction time	interval		4.70	4.87	4.83	5.07		5.60	5.96	6.02	5.79					14.40	16.63	
	velocity	6.42	7.45	7.19	7.25	6.90		6.25	5.87	5.81	6.04			6.33		7.29	6.31	
H1 lead leg	strides																	

2003 USATF National Championship (Palo Alto, CA)

FINAL date 21-Jun-03

USATF Women's Sprint Development (2003)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
McIntosh, Raasin (USA) (19	time	6.47	10.76	15.10	19.52	23.89		28.53	33.28	38.16	43.21	48.58		54.62	6 / 1			
reaction time	interval		4.29	4.34	4.42	4.37		4.64	4.75	4.88	5.05	5.37	6.04			13.05	13.76	15.30
	velocity	6.96	8.16	8.06	7.92	8.01		7.54	7.37	7.17	6.93	6.52	6.62	7.32		8.05	7.63	6.86
H1 lead leg	strides																	
Hayes, Joanna (USA) (1976)	time	6.36	10.46	14.67	18.92	23.42		28.11	33.05	37.99	43.06	48.47		54.76	8 / 2			
reaction time	interval		4.10	4.21	4.25	4.50		4.69	4.94	4.94	5.07	5.41	6.29			12.56	14.13	15.42
	velocity	7.08	8.54	8.31	8.24	7.78		7.46	7.09	7.09	6.90	6.47	6.36	7.30		8.36	7.43	6.81
H1 lead leg	strides																	
Glover, Sandra (USA) (1968)	time	6.36	10.58	14.82	19.22	23.62		28.32	32.85	37.57	42.68	48.20		55.12	3 / 3			
reaction time	interval		4.22	4.24	4.40	4.40		4.70	4.53	4.72	5.11	5.52	6.92			12.86	13.63	15.35
	velocity	7.08	8.29	8.25	7.95	7.95		7.45	7.73	7.42	6.85	6.34	5.78	7.26		8.16	7.70	6.84
H1 lead leg	strides																	
Taylor, Brenda (USA) (1979)	time	6.34	10.43	14.70	19.07	23.61		28.20	32.82	37.82	43.06	48.67		55.60	5 / 4			
reaction time	interval		4.09	4.27	4.37	4.54		4.59	4.62	5.00	5.24	5.61	6.93			12.73	13.75	15.85
	velocity	7.10	8.56	8.20	8.01	7.71		7.63	7.58	7.00	6.68	6.24	5.77	7.19		8.25	7.64	6.62
H1 lead leg	strides																	
Sallins, Melinda (USA) (1973	time	6.52	10.74	15.12	19.49	23.94		28.58	33.53	38.54	43.81	49.50		56.24	1 / 5			
reaction time	interval		4.22	4.38	4.37	4.45		4.64	4.95	5.01	5.27	5.69	6.74			12.97	14.04	15.97
	velocity	6.90	8.29	7.99	8.01	7.87		7.54	7.07	6.99	6.64	6.15	5.93	7.11		8.10	7.48	6.57
H1 lead leg	strides																	
Tolbert, Ryan (USA) (1976)	time	6.57	10.76	15.14	19.75	24.29		29.01	33.83	38.79	43.96	49.48		56.33	7 / 6			
reaction time	interval		4.19	4.38	4.61	4.54		4.72	4.82	4.96	5.17	5.52	6.85			13.18	14.08	15.65
	velocity	6.85	8.35	7.99	7.59	7.71		7.42	7.26	7.06	6.77	6.34	5.84	7.10		7.97	7.46	6.71
H1 lead leg	strides																	
Smith, Shauna (USA) (1983)	time	6.82	11.18	15.62	20.24	24.95		29.83	35.04	40.39	45.85	51.40		57.69	2 / 7			
reaction time	interval		4.36	4.44	4.62	4.71		4.88	5.21	5.35	5.46	5.55	6.29			13.42	14.80	16.36
	velocity	6.60	8.03	7.88	7.58	7.43		7.17	6.72	6.54	6.41	6.31	6.36	6.93		7.82	7.09	6.42
H1 lead leg	strides																	
Demus, Lashinda (USA) (19	time	6.34	10.51	14.75	19.09	23.49		27.98	32.77	37.75	43.28	49.38		59.05	4 / 8			
reaction time	interval		4.17	4.24	4.34	4.40		4.49	4.79	4.98	5.53	6.10	9.67			12.75	13.68	16.61
	velocity	7.10	8.39	8.25	8.06	7.95		7.80	7.31	7.03	6.33	5.74	4.14	6.77		8.24	7.68	6.32
H1 lead leg	strides																	

2002 IAAF World Cup (Madrid, ESP)

FINAL date 20-Sep-02

Sanchez (2002) - copa del mundo de Madrid '02: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pechonkina, Yuliya (RUS) (1		time	6.49	10.55	14.77	18.94	23.29		27.77	32.37	37.26	42.31	47.48		53.74	3 / 1			
reaction time	0.184	interval		4.06	4.22	4.17	4.35		4.48	4.60	4.89	5.05	5.17	6.26			12.45	13.43	15.11
		velocity	6.93	8.62	8.29	8.39	8.05		7.81	7.61	7.16	6.93	6.77	6.39	7.44		8.43	7.82	6.95
H1 lead leg	L	strides	22	15	15	15	15		15	15	16	16	17	20	181				
Glover, Sandra (USA) (1968)		time	6.27	10.54	14.95	19.38	24.08		28.69	33.42	38.23	43.23	48.29		54.46	6 / 2			
reaction time	0.198	interval		4.27	4.41	4.43	4.70		4.61	4.73	4.81	5.00	5.06	6.17			13.11	14.04	14.87
		velocity	7.18	8.20	7.94	7.90	7.45		7.59	7.40	7.28	7.00	6.92	6.48	7.34		8.01	7.48	7.06
H1 lead leg	L	strides	23	16	16	16	16		16	16	17	17	17	20	190				
Pittman, Jana (AUS) (1982)		time	6.45	10.70	15.11	19.60	24.24		28.82	33.60	38.60	43.73	48.89		55.15	9 / 3			
reaction time	0.189	interval		4.25	4.41	4.49	4.64		4.58	4.78	5.00	5.13	5.16	6.26			13.15	14.00	15.29
		velocity	6.98	8.24	7.94	7.80	7.54		7.64	7.32	7.00	6.82	6.78	6.39	7.25		7.98	7.50	6.87
H1 lead leg	R	strides	22	15	15	15	15		15	15	16	16	16	18.5	178.5				
Tîrlea, Ionela (ROU) (1976)		time	6.29	10.59	14.96	19.37	24.11		29.03	34.18	39.44	44.80	50.15		56.17	4 / 4			
reaction time	0.161	interval		4.30	4.37	4.41	4.74		4.92	5.15	5.26	5.36	5.35	6.02			13.08	14.81	15.97
		velocity	7.15	8.14	8.01	7.94	7.38		7.11	6.80	6.65	6.53	6.54	6.64	7.12		8.03	7.09	6.57
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	18	18	20	194				
Torshina, Natalya (KAZ) (19		time	6.41	10.66	15.01	19.58	24.38		29.25	34.17	39.36	44.81	50.20		56.38	7 / 5			
reaction time	0.208	interval		4.25	4.35	4.57	4.80		4.87	4.92	5.19	5.45	5.39	6.18			13.17	14.59	16.03

		velocity	7.02	8.24	8.05	7.66	7.29	7.19	7.11	6.74	6.42	6.49	6.47	7.09		7.97	7.20	6.55
H1 lead leg	R	strides	22	15	15	15	16	16	16	17	18	17	20.5	187.5				
Parris-Thymes, Debbie (JAM		time	6.49	10.86	15.38	19.90	24.72	29.51	34.70	39.87	45.32	50.96		57.36	1 / 6			
reaction time	0.154	interval		4.37	4.52	4.52	4.82	4.79	5.19	5.17	5.45	5.64	6.40			13.41	14.80	16.26
		velocity	6.93	8.01	7.74	7.74	7.26	7.31	6.74	6.77	6.42	6.21	6.25	6.97		7.83	7.09	6.46
H1 lead leg	R	strides	25	17	17	17	17	17	17	17	18	19	21.5	202.5				
Meißner, Heike (GER) (1970)		time	6.72	11.45	16.08	20.50	25.21	30.01	35.10	40.23	45.65	51.06		57.40	5 / 7			
reaction time	0.177	interval		4.73	4.63	4.42	4.71	4.80	5.09	5.13	5.42	5.41	6.34			13.78	14.60	15.96
		velocity	6.70	7.40	7.56	7.92	7.43	7.29	6.88	6.82	6.46	6.47	6.31	6.97		7.62	7.19	6.58
H1 lead leg	R	strides	23	16	16	15	15	15	16	17	17	17	20.5	187.5				
Lachgar, Zahra (MAR) (1977		time	7.01	11.54	16.24	20.95	25.94	31.02	36.41	41.83	47.32	52.95		59.14	2 / 8			
reaction time	0.260	interval		4.53	4.70	4.71	4.99	5.08	5.39	5.42	5.49	5.63	6.19			13.94	15.46	16.54
		velocity	6.42	7.73	7.45	7.43	7.01	6.89	6.49	6.46	6.38	6.22	6.46	6.76		7.53	6.79	6.35
H1 lead leg	R	strides	24	16	16	16	16	17	17	18	19	19	21.5	199.5				
Montero, Beatriz (ESP) (197		time	6.69	11.18	15.76	20.50	25.42	30.56	35.88	41.34	47.11	52.87		59.79	8 / 9			
reaction time	0.181	interval		4.49	4.58	4.74	4.92	5.14	5.32	5.46	5.77	5.76	6.92			13.81	15.38	16.99
		velocity	6.73	7.80	7.64	7.38	7.11	6.81	6.58	6.41	6.07	6.08	5.78	6.69		7.60	6.83	6.18
H1 lead leg	R	strides	24	16	16	16	17	17	18	18	19	19	22.5	202.5				

2002 European Championships (Munich, GER)

FINAL

date 08-Aug-02

Graubner (2009) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tîrlea, Ionela (ROU) (1976)		time	6.46	10.64	14.86	19.19	23.66		28.37	33.27	38.40	43.68	49.01		54.95	/ 1			
reaction time	0.171	interval		4.18	4.22	4.33	4.47		4.71	4.90	5.13	5.28	5.33	5.94			12.73	14.08	15.74
		velocity	6.97	8.37	8.29	8.08	7.83		7.43	7.14	6.82	6.63	6.57	6.73	7.28		8.25	7.46	6.67
H1 lead leg		strides		15	15	15	15		16	16	16	17	17						
Meißner, Heike (GER) (1970)		time	6.74	10.91	15.16	19.51	24.07		28.84	33.73	38.83	44.15	49.59		55.89	/ 2			
reaction time	0.180	interval		4.17	4.25	4.35	4.56		4.77	4.89	5.10	5.32	5.44	6.30			12.77	14.22	15.86
		velocity	6.68	8.39	8.24	8.05	7.68		7.34	7.16	6.86	6.58	6.43	6.35	7.16		8.22	7.38	6.62
H1 lead leg		strides		15	15	15	16		16	16	16	17	17						
Olichwierczuk, Anna (POL) (		time	6.61	10.79	15.01	19.31	23.79		28.53	33.37	38.51	43.91	49.57		56.18	/ 3			
reaction time	0.185	interval		4.18	4.22	4.30	4.48		4.74	4.84	5.14	5.40	5.66	6.61			12.70	14.06	16.20
		velocity	6.81	8.37	8.29	8.14	7.81		7.38	7.23	6.81	6.48	6.18	6.05	7.12		8.27	7.47	6.48
H1 lead leg		strides		15	15	15	15		16	16	16	17	18						
Niederstatter, Monika (ITA) (		time	6.89	11.25	15.71	20.21	24.82		29.59	34.55	39.65	44.85	50.21		56.34	/ 4			
reaction time	0.206	interval		4.36	4.46	4.50	4.61		4.77	4.96	5.10	5.20	5.36	6.13			13.32	14.34	15.66
		velocity	6.53	8.03	7.85	7.78	7.59		7.34	7.06	6.86	6.73	6.53	6.53	7.10		7.88	7.32	6.70
H1 lead leg		strides																	
Bakhvalova, Yekaterina (RUS		time	6.61	10.83	15.11	19.61	24.30		29.15	34.21	39.53	44.90	50.35		56.39	/ 5			
reaction time	0.250	interval		4.22	4.28	4.50	4.69		4.85	5.06	5.32	5.37	5.45	6.04			13.00	14.60	16.14
		velocity	6.81	8.29	8.18	7.78	7.46		7.22	6.92	6.58	6.52	6.42	6.62	7.09		8.08	7.19	6.51
H1 lead leg		strides																	
Pskit, Małgorzata (POL) (197		time	6.72	10.91	15.13	19.51	24.03		28.75	33.73	38.87	44.35	50.11		56.76	/ 6			
reaction time	0.202	interval		4.19	4.22	4.38	4.52		4.72	4.98	5.14	5.48	5.76	6.65			12.79	14.22	16.38
		velocity	6.70	8.35	8.29	7.99	7.74		7.42	7.03	6.81	6.39	6.08	6.02	7.05		8.21	7.38	6.41
H1 lead leg		strides																	
Danvers, Tasha (GBR) (1977		time	6.65	10.83	15.11	19.59	24.17		28.91	33.89	39.19	44.69	50.35		56.93	/ 7			
reaction time	0.244	interval		4.18	4.28	4.48	4.58		4.74	4.98	5.30	5.50	5.66	6.58			12.94	14.30	16.46
		velocity	6.77	8.37	8.18	7.81	7.64		7.38	7.03	6.60	6.36	6.18	6.08	7.03		8.11	7.34	6.38
H1 lead leg		strides																	
Dudgeon, Sinead (GBR) (19		time	6.61	11.16	15.65	20.22	24.99		29.99	35.23	40.76	46.56			59.39	/ 8			
reaction time	0.184	interval		4.55	4.49	4.57	4.77		5.00	5.24	5.53	5.80					13.61	15.01	
		velocity	6.81	7.69	7.80	7.66	7.34		7.00	6.68	6.33	6.03			6.74		7.71	7.00	
H1 lead leg		strides																	

Heat 1

date 07-Aug-02

Graubner (2009) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tîrlea, Ionela (ROU) (1976)		time	6.48	10.67	14.95					33.71	38.95	44.25	49.59		55.57	/ 1			
reaction time	0.196	interval		4.19	4.28					18.76	5.24	5.30	5.34	5.98					15.88
		velocity	6.94	8.35	8.18					7.46	6.68	6.60	6.55	6.69	7.20				6.61
H1 lead leg		strides																	
Meißner, Heike (GER) (1970)		time	6.75	11.04	15.35	19.75	24.23		29.09	33.97	39.97	44.13	49.47		55.67	/ 2			
reaction time	0.160	interval		4.29	4.31	4.40	4.48		4.86	4.88	6.00	4.16	5.34	6.20			13.00	14.22	15.50
		velocity	6.67	8.16	8.12	7.95	7.81		7.20	7.17	5.83	8.41	6.55	6.45	7.19		8.08	7.38	6.77
H1 lead leg		strides																	

2001 Chinese National Games (Guangzhou, CHN)

FINAL

date 22-Nov-01

Lu (2002) - technical analysis of women's 400m hurdles champion and runner-up at the 9th national games

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Song Yinglan (CHN) (1975)		time	6.37	10.57	14.81	19.05	23.41		27.97	32.73	37.65	42.73	47.85		53.96	/ 1			
reaction time		interval		4.20	4.24	4.24	4.36		4.56	4.76	4.92	5.08	5.12	6.11	=AR PB		12.68	13.68	15.12
		velocity	7.06	8.33	8.25	8.25	8.03		7.68	7.35	7.11	6.89	6.84	6.55	7.41		8.28	7.68	6.94
H1 lead leg		strides																	
Huang Xiaoxiao (CHN) (1983		time	6.31	10.55	14.79	19.11	23.51		28.10	33.02	38.02	43.26	48.66		55.15	/ 2			
reaction time		interval		4.24	4.24	4.32	4.40		4.59	4.92	5.00	5.24	5.40	6.49	PB		12.80	13.91	15.64
		velocity	7.13	8.25	8.25	8.10	7.95		7.63	7.11	7.00	6.68	6.48	6.16	7.25		8.20	7.55	6.71
H1 lead leg		strides																	

2001 ISTAF (Berlin, GER)

FINAL

date 31-Aug-01

Graubner (2009) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Nosova, Yuliya (RUS) (1978)		time	6.62	10.78	15.03	19.36	23.78		28.30	33.11	38.09	43.21	48.62		54.62	/ 1			
reaction time	0.233	interval		4.16	4.25	4.33	4.42		4.52	4.81	4.98	5.12	5.41	6.00			12.74	13.75	15.51
		velocity	6.80	8.41	8.24	8.08	7.92		7.74	7.28	7.03	6.84	6.47	6.67	7.32		8.24	7.64	6.77
H1 lead leg		strides																	
Tereschuk-Antipova, Tetiana		time	6.69	11.00	15.32	19.73	24.23		28.84	33.63	38.50	43.61	48.80		54.64	/ 2			
reaction time	0.291	interval		4.31	4.32	4.41	4.50		4.61	4.79	4.87	5.11	5.19	5.84			13.04	13.90	15.17
		velocity	6.73	8.12	8.10	7.94	7.78		7.59	7.31	7.19	6.85	6.74	6.85	7.32		8.05	7.55	6.92
H1 lead leg		strides																	
Pernía, Daimí (CUB) (1976)		time	6.70	10.99	15.36	19.79	24.38		29.16	34.19	39.15	44.21	49.30		54.98	/ 3			
reaction time	0.244	interval		4.29	4.37	4.43	4.59		4.78	5.03	4.96	5.06	5.09	5.68			13.09	14.40	15.11
		velocity	6.72	8.16	8.01	7.90	7.63		7.32	6.96	7.06	6.92	6.88	7.04	7.28		8.02	7.29	6.95
H1 lead leg		strides																	
Tîrlea, Ionela (ROU) (1976)		time	6.47	10.68	14.99	19.34	23.92		28.76	33.71	38.86	44.08	49.30		55.13	/ 4			
reaction time	0.202	interval		4.21	4.31	4.35	4.58		4.84	4.95	5.15	5.22	5.22	5.83			12.87	14.37	15.59
		velocity	6.96	8.31	8.12	8.05	7.64		7.23	7.07	6.80	6.70	6.70	6.86	7.26		8.16	7.31	6.74
H1 lead leg		strides																	

2001 IAAF World Championships (Edmonton, CAN)

FINAL

date 08-Aug-01

Behm (2001) - Edmonton: Le quatrache: les finales

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bidouane, Nezha (MAR) (19		time	6.3	10.7	15.0	19.3	23.7		28.3	32.9	37.7	42.4	47.4		53.34	4 / 1			
reaction time	0.153	interval		4.4	4.3	4.3	4.4		4.6	4.6	4.8	4.7	5.0	5.94			13.00	13.60	14.50
		velocity	7.14	7.95	8.14	8.14	7.95		7.61	7.61	7.29	7.45	7.00	6.73	7.50		8.08	7.72	7.24
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	17	17	20.5	193.5				
Nosova, Yuliya (RUS) (1978)		time	6.3	10.5	14.7	19.0	23.4		27.9	32.7	37.7	42.7	47.9		54.27	5 / 2			
reaction time	0.123	interval		4.2	4.2	4.3	4.4		4.5	4.8	5.0	5.0	5.2	6.37			12.70	13.70	15.20
		velocity	7.14	8.33	8.33	8.14	7.95		7.78	7.29	7.00	7.00	6.73	6.28	7.37		8.27	7.66	6.91
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	17	20.5	182.5				
Pernía, Daimí (CUB) (1976)		time	6.3	10.4	14.5	18.9	23.2		27.8	32.0	37.7	42.7	48.2		54.51	3 / 3			
reaction time	0.160	interval		4.1	4.1	4.4	4.3		4.6	4.2	5.7	5.0	5.5	6.31			12.60	13.10	16.20
		velocity	7.14	8.54	8.54	7.95	8.14		7.61	8.33	6.14	7.00	6.36	6.34	7.34		8.33	8.02	6.48
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	17	17	19.5	184.5				
Buford-Bailey, Tonja (USA)		time	6.3	10.6	14.9	19.3	23.7		28.4	33.2	38.3	43.4	48.7		54.55	6 / 4			
reaction time	0.146	interval		4.3	4.3	4.4	4.4		4.7	4.8	5.1	5.1	5.3	5.85			13.00	13.90	15.50
		velocity	7.14	8.14	8.14	7.95	7.95		7.45	7.29	6.86	6.86	6.60	6.84	7.33		8.08	7.55	6.77
H1 lead leg	L	strides	23	15	15	15	15		15	16	17	17	17	20	185				
Parris-Thymes, Debbie (JAM		time	6.3	10.5	14.8	19.1	23.4		27.9	32.8	37.9	42.9	48.3		54.68	1 / 5			
reaction time	0.151	interval		4.2	4.3	4.3	4.3		4.5	4.9	5.1	5.0	5.4	6.38			12.80	13.70	15.50
		velocity	7.14	8.33	8.14	8.14	8.14		7.78	7.14	6.86	7.00	6.48	6.27	7.32		8.20	7.66	6.77
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	17	17	21.5	193.5				
Tîrlea, Ionela (ROU) (1976)		time	6.2	10.3	14.6	18.8	23.2		27.8	32.7	38.0	43.4	48.8		55.36	7 / 6			
reaction time	0.164	interval		4.1	4.3	4.2	4.4		4.6	4.9	5.3	5.4	5.4	6.56			12.60	13.90	16.10
		velocity	7.26	8.54	8.14	8.33	7.95		7.61	7.14	6.60	6.48	6.48	6.10	7.23		8.33	7.55	6.52
H1 lead leg	R	strides	23	16	16	16	16		17	17	17	17	17	20.5	192.5				
Hemmings, Deon (JAM) (19		time	6.3	10.6	15.0	19.3	23.8		28.6	33.7	38.9	44.0	49.3		55.83	8 / 7			
reaction time	0.179	interval		4.3	4.4	4.3	4.5		4.8	5.1	5.2	5.1	5.3	6.53			13.00	14.40	15.60
		velocity	7.14	8.14	7.95	8.14	7.78		7.29	6.86	6.73	6.86	6.60	6.13	7.16		8.08	7.29	6.73
H1 lead leg	L	strides	23	15	15	15	15		15	17	16	16	17		164				
Glover, Sandra (USA) (1968)	0.174	no information available													57.42	2 / 8			

Semi-Final 1

date 08-Aug-01

Behm (2001) - profil des finales d'Edmonton

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Glover, Sandra (USA) (1968)		time	6.4	10.7	15.1	19.5	24.0		28.5	33.3	38.2	43.2	48.6		55.04	2 / 4			
reaction time	0.174	interval		4.3	4.4	4.4	4.5		4.5	4.8	4.9	5.0	5.4	6.44			13.10	13.80	15.30

		velocity	7.03	8.14	7.95	7.95	7.78		7.78	7.29	7.14	7.00	6.48	6.21			8.02	7.61	6.86
	H1 lead leg	strides	24	16	16	16	16		17	18	18	18	18		177				

2001 European Junior Championships (Grosseto, ITA)

Heat 2

date 20-Jul-01

Leynier (2001) - Athl'haies - Championnats d'Europe Juniors

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Derycke, Sylvaine (FRA) (198		time	6.6	11.3	16.1	21.1	26.4		31.7	37.1	42.7	48.4	54.3		61.52	/ 5			
	reaction time	interval		4.7	4.8	5.0	5.3		5.3	5.4	5.6	5.7	5.9	7.2			14.50	16.00	17.20
		velocity	6.82	7.45	7.29	7.00	6.60		6.60	6.48	6.25	6.14	5.93	5.54	6.50		7.24	6.56	6.10
	H1 lead leg	strides																	

2001 European Cup (Bremen, GER)

FINAL

date 23-Jun-01

Graubner (2007) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Nosova, Yuliya (RUS) (1978)		time	6.62	10.74	14.90	19.12	23.51		27.99	32.76	37.66	42.70	47.83		53.84	/ 1			
	reaction time	interval		4.12	4.16	4.22	4.39		4.48	4.77	4.90	5.04	5.13	6.01	PB		12.50	13.64	15.07
		velocity	6.80	8.50	8.41	8.29	7.97		7.81	7.34	7.14	6.94	6.82	6.66	7.43		8.40	7.70	6.97
	H1 lead leg	strides																	
Tîrlea, Ionela (ROU) (1976)		time	6.43	10.56	14.77	19.05	23.54		28.12	33.07	38.27	43.71	49.21		55.08	/ 2			
	reaction time	interval		4.13	4.21	4.28	4.49		4.58	4.95	5.20	5.44	5.50	5.87			12.62	14.02	16.14
		velocity	7.00	8.47	8.31	8.18	7.80		7.64	7.07	6.73	6.43	6.36	6.81	7.26		8.32	7.49	6.51
	H1 lead leg	strides																	
Meißner, Heike (GER) (1970)		time	6.73	10.93	15.27	19.71	24.20		28.85	33.71	38.83	44.07	49.37		55.33	/ 3			
	reaction time	interval		4.20	4.34	4.44	4.49		4.65	4.86	5.12	5.24	5.30	5.96			12.98	14.00	15.66
		velocity	6.69	8.33	8.06	7.88	7.80		7.53	7.20	6.84	6.68	6.60	6.71	7.23		8.09	7.50	6.70
	H1 lead leg	strides																	
Morandais, Sylvanie (FRA) (		time	6.56	10.86	15.25	19.68	24.23			34.09	39.08	44.31	49.59		55.50	/ 4			
	reaction time	interval		4.30	4.39	4.43	4.55			9.86	4.99	5.23	5.28	5.91	PB		13.12	14.41	15.50
		velocity	6.86	8.14	7.97	7.90	7.69			7.10	7.01	6.69	6.63	6.77	7.21		8.00	7.29	6.77
	H1 lead leg	strides																	
Kurochkina, Tatyana (BLR) (		time	6.70	11.01	15.27	19.69	24.77		29.13	34.17	39.33	44.67	50.11		56.17	/ 5			
	reaction time	interval		4.31	4.26	4.42	5.08		4.36	5.04	5.16	5.34	5.44	6.06			12.99	14.48	15.94
		velocity	6.72	8.12	8.22	7.92	6.89		8.03	6.94	6.78	6.55	6.43	6.60	7.12		8.08	7.25	6.59
	H1 lead leg	strides																	
Niederstätter, Monika (ITA) (		time	6.85	11.22	15.67	20.15	24.77		29.51	34.53	39.63	44.86	50.47		56.85	/ 6			
	reaction time	interval		4.37	4.45	4.48	4.62		4.74	5.02	5.10	5.23	5.61	6.38			13.30	14.38	15.94
		velocity	6.57	8.01	7.87	7.81	7.58		7.38	6.97	6.86	6.69	6.24	6.27	7.04		7.89	7.30	6.59
	H1 lead leg	strides																	
Rücklová, Alena (CZE) (1981		time	6.92	11.36	15.91	20.48	25.24		30.21	35.29	40.45		51.45		57.60	/ 7			
	reaction time	interval		4.44	4.55	4.57	4.76		4.97	5.08	5.16		11.00	6.15	PB		13.56	14.81	16.16
		velocity	6.50	7.88	7.69	7.66	7.35		7.04	6.89	6.78		6.36	6.50	6.94		7.74	7.09	6.50
	H1 lead leg	strides																	
Danvers, Natasha (GBR) (19		time	6.56	10.69	14.87	19.21	23.69		28.53	33.53	38.67	43.98	54.86		62.97	/ 8			
	reaction time	interval		4.13	4.18	4.34	4.48		4.84	5.00	5.14	5.31	10.88	8.11			12.65	14.32	21.33
		velocity	6.86	8.47	8.37	8.06	7.81		7.23	7.00	6.81	6.59	3.22	4.93	6.35		8.30	7.33	4.92
	H1 lead leg	strides																	

2000 Olympic Games (Sydney, AUS)

FINAL

date 27-Sep-00

Behm (2000) - Sydney 2000: Compte-rendu du 400m haies

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Privalova, Irina (RUS) (1968)		time	6.4	10.5	14.7	19.0	23.3		27.7	32.2	37.0	41.9	47.1		53.02	3 / 1			
	reaction time 0.178	interval		4.1	4.2	4.3	4.3		4.4	4.5	4.8	4.9	5.2	5.92	PB		12.60	13.20	14.90
		velocity	7.03	8.54	8.33	8.14	8.14		7.95	7.78	7.29	7.14	6.73	6.76	7.54		8.33	7.95	7.05
	H1 lead leg L	strides	21	14	14	14	14		15	15	15	16	16	19	173				
Hemmings, Deon (JAM) (19		time	6.3	10.4	14.5	18.8	23.2		27.7	32.3	37.3	42.4	47.5		53.45	6 / 2			
	reaction time 0.446	interval		4.1	4.1	4.3	4.4		4.5	4.6	5.0	5.1	5.1	5.95			12.50	13.50	15.20
		velocity	7.14	8.54	8.54	8.14	7.95		7.78	7.61	7.00	6.86	6.86	6.72	7.48		8.40	7.78	6.91
	H1 lead leg L	strides	23	15	15	15	15		15	15	16	16	16	20	181				
Bidouane, Nezha (MAR) (19		time	6.4	10.7	15.0	19.3	23.6		28.1	32.7	37.5	42.4	47.5		53.57	4 / 3			
	reaction time 0.169	interval		4.3	4.3	4.3	4.3		4.5	4.6	4.8	4.9	5.1	6.07			12.90	13.40	14.80
		velocity	7.03	8.14	8.14	8.14	8.14		7.78	7.61	7.29	7.14	6.86	6.59	7.47		8.14	7.84	7.09
	H1 lead leg R	strides		16	16	16	16		16	17	17	17	17	21	169				
Pernía, Daimi (CUB) (1976)		time	6.4	10.5	14.7	19.0	23.3		27.9	32.5	37.5	42.6	47.6		53.68	5 / 4			
	reaction time 0.447	interval		4.1	4.2	4.3	4.3		4.6	4.6	5.0	5.1	5.0	6.08			12.60	13.50	15.10
		velocity	7.03	8.54	8.33	8.14	8.14		7.61	7.61	7.00	6.86	7.00	6.58	7.45		8.33	7.78	6.95
	H1 lead leg L	strides	23	15	15	15	15		15	15	15	16	16	19.5	179.5				
Tereschuk-Antipova, Tetiana		time	6.6	10.7	14.9	19.1	23.5		27.9	32.6	37.5	42.5	47.5		53.98	8 / 5			
	reaction time 0.326	interval		4.1	4.2	4.2	4.4		4.4	4.7	4.9	5.0	5.0	6.48			12.50	13.50	14.90

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	6.82	8.54	8.33	8.33	7.95	7.95	7.45	7.14	7.00	7.00	6.17	7.41		8.40	7.78	7.05
H1 lead leg	L	strides	22	15	15	15	15	15	16	16	16	16	17.5	178.5				
Tîrlea, Ionela (ROU) (1976)		time	6.4	10.5	14.7	19.0	23.3	28.1	32.9	37.9	42.9	48.3		54.35	7 / 6			
reaction time	0.281	interval		4.1	4.2	4.3	4.3	4.8	4.8	5.0	5.0	5.4	6.05			12.60	13.90	15.40
		velocity	7.03	8.54	8.33	8.14	8.14	7.29	7.29	7.00	7.00	6.48	6.61	7.36		8.33	7.55	6.82
H1 lead leg	L	strides	22	15	15	15	15	16	16	16	17	17		164				
Arnardóttir, Gudrún (ISL) (1		time	6.6	10.9	15.2	19.5	24.0	28.6	33.5	38.5	43.5	48.7		54.63	2 / 7			
reaction time	0.238	interval		4.3	4.3	4.3	4.5	4.6	4.9	5.0	5.0	5.2	5.93			12.90	14.00	15.20
		velocity	6.82	8.14	8.14	8.14	7.78	7.61	7.14	7.00	7.00	6.73	6.75	7.32		8.14	7.50	6.91
H1 lead leg	L	strides	23	15	15	15	15	15	15	16	16	16	18.5	179.5				
Danvers, Tasha (GBR) (1977)		time	6.2	10.4	14.7	19.2	23.7	28.2	33.1	38.0	43.1	48.7		55.00	1 / 8			
reaction time	0.174	interval		4.2	4.3	4.5	4.5	4.5	4.9	4.9	5.1	5.6	6.30			13.00	13.90	15.60
		velocity	7.26	8.33	8.14	7.78	7.78	7.78	7.14	7.14	6.86	6.25	6.35	7.27		8.08	7.55	6.73
H1 lead leg	L	strides	21	15	14	14	14	15	15	15	15	16	17	171				

1999 IAAF World Championships (Sevilla, ESP)

FINAL

date 25-Aug-99

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pernía, Daimi (CUB) (1976)		time	6.26	10.36	14.50	18.79	23.17		27.75	32.55	37.29	42.22	47.00		52.89	5 / 1			
reaction time	0.202	interval		4.10	4.14	4.29	4.38		4.58	4.80	4.74	4.93	4.78	5.89	NR		12.53	13.76	14.45
		velocity	7.19	8.54	8.45	8.16	7.99		7.64	7.29	7.38	7.10	7.32	6.79	7.56		8.38	7.63	7.27
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.5	181.5				
Bidouane, Nezha (MAR) (19		time	6.25	10.41	14.61	18.91	23.28		27.77	32.56	37.19	42.05	46.96		52.90	4 / 2			
reaction time	0.170	interval		4.16	4.20	4.30	4.37		4.49	4.79	4.63	4.86	4.91	5.94	AR		12.66	13.65	14.40
		velocity	7.20	8.41	8.33	8.14	8.01		7.80	7.31	7.56	7.20	7.13	6.73	7.56		8.29	7.69	7.29
H1 lead leg	R	strides	24	16	16	16	16		16	17	17	17	17	20.5	192.5				
Hemmings, Deon (JAM) (19		time	6.14	10.18	14.36	18.61	22.98		27.48	32.30	37.06	42.10	47.05		53.16	3 / 3			
reaction time	0.188	interval		4.04	4.18	4.25	4.37		4.50	4.82	4.76	5.04	4.95	6.11			12.47	13.69	14.75
		velocity	7.33	8.66	8.37	8.24	8.01		7.78	7.26	7.35	6.94	7.07	6.55	7.52		8.42	7.67	7.12
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	16	20	183				
Blackett, Andrea (BAR) (197		time	6.20	10.31	14.59	18.98	23.49		28.20	33.00	37.81	42.70	47.71		53.36	6 / 4			
reaction time	0.178	interval		4.11	4.28	4.39	4.51		4.71	4.80	4.81	4.89	5.01	5.65	NR / PB		12.78	14.02	14.71
		velocity	7.26	8.52	8.18	7.97	7.76		7.43	7.29	7.28	7.16	6.99	7.08	7.50		8.22	7.49	7.14
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16	16	18.5	181.5				
Glover, Sandra (USA) (1968)		time	6.44	10.64	14.97	19.30	23.83		28.37	32.99	37.64	42.55	47.60		53.65	1 / 5			
reaction time	0.150	interval		4.20	4.33	4.33	4.53		4.54	4.62	4.65	4.91	5.05	6.05	PB		12.86	13.69	14.61
		velocity	6.99	8.33	8.08	8.08	7.73		7.71	7.58	7.53	7.13	6.93	6.61	7.46		8.16	7.67	7.19
H1 lead leg	L	strides	24	16	16	16	16		16	16	17	17	17	20	191				
Johnson, Michelle (USA) (19		time	6.53	10.67	14.96	19.32	23.73		28.25	33.12	37.92	42.98	48.09		54.23	2 / 6			
reaction time	0.291	interval		4.14	4.29	4.36	4.41		4.52	4.87	4.80	5.06	5.11	6.14			12.79	13.80	14.97
		velocity	6.89	8.45	8.16	8.03	7.94		7.74	7.19	7.29	6.92	6.85	6.51	7.38		8.21	7.61	7.01
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.5	181.5				
Tereschuk-Antipova, Tetiana		time	6.61	10.82	15.12	19.49	23.98		28.51	33.25	38.01	43.03	48.17		54.33	7 / 7			
reaction time	0.273	interval		4.21	4.30	4.37	4.49		4.53	4.74	4.76	5.02	5.14	6.16			12.88	13.76	14.92
		velocity	6.81	8.31	8.14	8.01	7.80		7.73	7.38	7.35	6.97	6.81	6.49	7.36		8.15	7.63	7.04
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	16	19.5	180.5				
Parris-Thymes, Debbie (JAM		time	6.53	10.91	15.33	19.91	24.57		29.46	34.41	39.35	44.47	49.77		56.24	8 / 8			
reaction time	0.239	interval		4.38	4.42	4.58	4.66		4.89	4.95	4.94	5.12	5.30	6.47			13.38	14.50	15.36
		velocity	6.89	7.99	7.92	7.64	7.51		7.16	7.07	7.09	6.84	6.60	6.18	7.11		7.85	7.24	6.84
H1 lead leg	L	strides	24	17	17	17	17		17	17	17	17	17	20.5	197.5				

Semi-Final 2

date 23-Aug-99

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bidouane, Nezha (MAR) (19		time	6.18	10.55	14.91	19.39	24.01		28.76	33.52	38.29	43.13	47.96		53.95	6 / 1			
reaction time	0.166	interval		4.37	4.36	4.48	4.62		4.75	4.76	4.77	4.84	4.83	5.99			13.21	14.13	14.44
		velocity	7.28	8.01	8.03	7.81	7.58		7.37	7.35	7.34	7.23	7.25	6.68	7.41		7.95	7.43	7.27
H1 lead leg	R	strides	24	16	16	16	16		16	17	17	17	17	20.5	192.5				
Pernía, Daimi (CUB) (1976)		time	6.05	10.21	14.45	18.76	23.19		27.90	32.74	37.67	42.77	47.84		53.96	3 / 2			
reaction time	0.197	interval		4.16	4.24	4.31	4.43		4.71	4.84	4.93	5.10	5.07	6.12			12.71	13.98	15.10
		velocity	7.44	8.41	8.25	8.12	7.90		7.43	7.23	7.10	6.86	6.90	6.54	7.41		8.26	7.51	6.95
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	18.5	180.5				
Glover, Sandra (USA) (1968)		time	6.19	10.46	14.81	19.17	23.72		28.25	32.96	37.77	42.76	47.90		54.17	4 / 3			
reaction time	0.151	interval		4.27	4.35	4.36	4.55		4.53	4.71	4.81	4.99	5.14	6.27			12.98	13.79	14.94
		velocity	7.27	8.20	8.05	8.03	7.69		7.73	7.43	7.28	7.01	6.81	6.38	7.38		8.09	7.61	7.03
H1 lead leg	L	strides	24	16	16	16	16		16	16	17	17	17	19.5	190.5				
Parris-Thymes, Debbie (JAM		time	6.16	10.47	14.88	19.42	24.08		28.87	33.51	38.32	43.28	48.34		54.81	5 / 4			

reaction time	0.155	interval		4.31	4.41	4.54	4.66	4.79	4.64	4.81	4.96	5.06	6.47			13.26	14.09	14.83
		velocity	7.31	8.12	7.94	7.71	7.51	7.31	7.54	7.28	7.06	6.92	6.18	7.30		7.92	7.45	7.08
H1 lead leg	L	strides	23	16	16	17	17	16	16	17	17	17	21	193				
Szekeres, Judit (HUN) (1966)		time	6.25	10.57	15.01	19.56	24.23	28.87	33.70	38.64	43.75	48.87		54.86	7 / 5			
reaction time	0.182	interval		4.32	4.44	4.55	4.67	4.64	4.83	4.94	5.11	5.12	5.99			13.31	14.14	15.17
		velocity	7.20	8.10	7.88	7.69	7.49	7.54	7.25	7.09	6.85	6.84	6.68	7.29		7.89	7.43	6.92
H1 lead leg	L	strides	23	16	16	16	16	16	16	17	17	17	20.5	190.5				
Smith-Walsh, Susan (IRL) (1		time	6.12	10.38	14.86	19.35	23.89	28.50	33.24	38.21	43.29	48.51		55.20	1 / 6			
reaction time	0.176	interval		4.26	4.48	4.49	4.54	4.61	4.74	4.97	5.08	5.22	6.69			13.23	13.89	15.27
		velocity	7.35	8.22	7.81	7.80	7.71	7.59	7.38	7.04	6.89	6.70	5.98	7.25		7.94	7.56	6.88
H1 lead leg	R	strides	23	15	15	15	15	15	16	16	17	17	21	185				
Torshina, Natayla (KAZ) (19		time	6.16	10.49	14.76	19.15	23.69	28.34	33.25	38.24	43.48	48.74		55.26	8 / 7			
reaction time	0.256	interval		4.33	4.27	4.39	4.54	4.65	4.91	4.99	5.24	5.26	6.52			12.99	14.10	15.49
		velocity	7.31	8.08	8.20	7.97	7.71	7.53	7.13	7.01	6.68	6.65	6.13	7.24		8.08	7.45	6.78
H1 lead leg	R	strides	22	15	15	15	15	15	16	17	17	17	20.5	184.5				
Niederstätter, Monika (ITA) (		time	6.24	10.55	14.95	19.46	24.10	28.86	33.70	38.67	43.79	49.05		55.57	2 / 8			
reaction time	0.214	interval		4.31	4.40	4.51	4.64	4.76	4.84	4.97	5.12	5.26	6.52			13.22	14.24	15.35
		velocity	7.21	8.12	7.95	7.76	7.54	7.35	7.23	7.04	6.84	6.65	6.13	7.20		7.94	7.37	6.84
H1 lead leg	R	strides	23	16	16	16	16	16	17	17	17	17	22	193				

Semi-Final 1

date 23-Aug-99

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hemmings, Deon (JAM) (19		time	5.99	10.09	14.25	18.57	23.03		27.55	32.41	37.36	42.41	47.78		54.00	3 / 1			
reaction time	0.189	interval		4.10	4.16	4.32	4.46		4.52	4.86	4.95	5.05	5.37	6.22			12.58	13.84	15.37
		velocity	7.51	8.54	8.41	8.10	7.85		7.74	7.20	7.07	6.93	6.52	6.43	7.41		8.35	7.59	6.83
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	17	20	183				
Blackett, Andrea (BAR) (197		time	5.99	10.11	14.38	18.84	23.39		28.23	33.21	38.14	43.16	48.13		54.18	6 / 2			
reaction time	0.144	interval		4.12	4.27	4.46	4.55		4.84	4.98	4.93	5.02	4.97	6.05			12.85	14.37	14.92
		velocity	7.51	8.50	8.20	7.85	7.69		7.23	7.03	7.10	6.97	7.04	6.61	7.38		8.17	7.31	7.04
H1 lead leg	L	strides	23	15	15	15	16		16	16	16	16	16	19	183				
Tereschuk-Antipova, Tetiana		time	6.24	10.43	14.66	19.11	23.54		28.13	33.00	37.97	43.00	48.14		54.55	4 / 3			
reaction time	0.182	interval		4.19	4.23	4.45	4.43		4.59	4.87	4.97	5.03	5.14	6.41			12.87	13.89	15.14
		velocity	7.21	8.35	8.27	7.87	7.90		7.63	7.19	7.04	6.96	6.81	6.24	7.33		8.16	7.56	6.94
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	16	16	19.5	180.5				
Johnson, Michelle (USA) (19		time	6.15	10.30	14.47	18.79	23.25		27.85	32.85	37.75	42.78	47.99		54.67	5 / 4			
reaction time	0.188	interval		4.15	4.17	4.32	4.46		4.60	5.00	4.90	5.03	5.21	6.68			12.64	14.06	15.14
		velocity	7.32	8.43	8.39	8.10	7.85		7.61	7.00	7.14	6.96	6.72	5.99	7.32		8.31	7.47	6.94
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	19.5	181.5				
Diouf, Tacko (SEN) (1976)		time	6.15	10.46	14.85	19.29	23.93		28.86	33.75	38.63	43.48	48.63		55.17	7 / 5			
reaction time	0.218	interval		4.31	4.39	4.44	4.64		4.93	4.89	4.88	4.85	5.15	6.54			13.14	14.46	14.88
		velocity	7.32	8.12	7.97	7.88	7.54		7.10	7.16	7.17	7.22	6.80	6.12	7.25		7.99	7.26	7.06
H1 lead leg	R	strides	22	16	16	16	16		17	17	17	17	18	22	194				
Dudgeon, Sinead (GBR) (19		time	6.06	10.27	14.60	18.98	23.59		28.46	33.48	38.73	43.97	49.38		55.69	2 / 6			
reaction time	0.173	interval		4.21	4.33	4.38	4.61		4.87	5.02	5.25	5.24	5.41	6.31			12.92	14.50	15.90
		velocity	7.43	8.31	8.08	7.99	7.59		7.19	6.97	6.67	6.68	6.47	6.34	7.18		8.13	7.24	6.60
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	20	186				
Bakhvalova, Yekaterina (RUS		time	6.23	10.56	14.97	19.12	24.19		29.08	34.05	38.93	44.18	49.63		55.76	8 / 7			
reaction time	0.151	interval		4.33	4.41	4.15	5.07		4.89	4.97	4.88	5.25	5.45	6.13			12.89	14.93	15.58
		velocity	7.22	8.08	7.94	8.43	6.90		7.16	7.04	7.17	6.67	6.42	6.53	7.17		8.15	7.03	6.74
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	15	16	18	176				
Urbansky, Ulrike (GER) (197		time	6.28	10.51	14.79	19.13	23.56		28.22	33.45	38.71	43.89	49.26		55.81	1 / 8			
reaction time	0.239	interval		4.23	4.28	4.34	4.43		4.66	5.23	5.26	5.18	5.37	6.55			12.85	14.32	15.81
		velocity	7.17	8.27	8.18	8.06	7.90		7.51	6.69	6.65	6.76	6.52	6.11	7.17		8.17	7.33	6.64
H1 lead leg	R	strides	23	15	15	15	15		15	17	17	17	17	20	186				

Heat 4

date 21-Aug-99

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hemmings, Deon (JAM) (19		time	6.04	10.23	14.51	18.93	23.29		27.84	32.74	37.67	42.84	48.05		54.27	5 / 1			
reaction time	0.172	interval		4.19	4.28	4.42	4.36		4.55	4.90	4.93	5.17	5.21	6.22			12.89	13.81	15.31
		velocity	7.45	8.35	8.18	7.92	8.03		7.69	7.14	7.10	6.77	6.72	6.43	7.37		8.15	7.60	6.86
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	20	184				

Heat 2

date 21-Aug-99

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bidouane, Nezha (MAR) (19		time	6.29	10.53	14.82	19.19	23.67		28.44	33.29	38.18	43.25	48.41		54.64	5 / 1			
reaction time	0.188	interval		4.24	4.29	4.37	4.48		4.77	4.85	4.89	5.07	5.16	6.23			12.90	14.10	15.12
		velocity	7.15	8.25	8.16	8.01	7.81		7.34	7.22	7.16	6.90	6.78	6.42	7.32		8.14	7.45	6.94
H1 lead leg	R	strides	24	16	16	16	16		17	17	17	17	18	21	195				

Heat 1

date 21-Aug-99

Sanchez (1999) - Sevilla '99: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pernía, Daimi (CUB) (1976)		time	6.21	10.49	14.79	19.19	23.83		28.56	33.61	38.71	43.75	48.85		54.88	7 / 2			
reaction time	0.272	interval		4.28	4.30	4.40	4.64		4.73	5.05	5.10	5.04	5.10	6.03			12.98	14.42	15.24
		velocity	7.25	8.18	8.14	7.95	7.54		7.40	6.93	6.86	6.94	6.86	6.63	7.29		8.09	7.28	6.89
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19	181				

1998 European Championships (Budapest, HUN)

FINAL

date 23-Aug-98

Sanchez (1998) - Budapest '98: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Tîrlea, Ionela (ROU) (1976)		time	6.30	10.40	14.42	18.62	23.05		27.61	32.16	36.92	42.01	47.30		53.37	6 / 1			
reaction time		interval		4.10	4.02	4.20	4.43		4.56	4.55	4.76	5.09	5.29	6.07	NR		12.32	13.54	15.14
		velocity	7.14	8.54	8.71	8.33	7.90		7.68	7.69	7.35	6.88	6.62	6.59	7.49		8.52	7.75	6.94
H1 lead leg	L	strides	22	15	15	15	15		15	16	16	17	17	21	184				
Tereschuk-Antipova, Tetiana		time	6.41				23.10						47.49		54.07	5 / 2			
reaction time		interval					16.69						24.39	6.58					
		velocity	7.02				8.39						7.18	6.08	7.40				
H1 lead leg	L	strides	22	15	15	15	15		15	15	15	16	16	21	180				
Rieger, Silvia (GER) (1970)		time	6.49				23.35						48.17		54.45	3 / 3			
reaction time		interval					16.86						24.82	6.28					
		velocity	6.93				8.30						7.05	6.37	7.35				
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	20.5	184.5				
Arnardóttir, Gudrún (ISL) (1		time	6.54				23.81						48.80		54.59	2 / 4			
reaction time		interval					17.27						24.99	5.79	NR				
		velocity	6.88				8.11						7.00	6.91	7.33				
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	19.5	183.5				
Goossens, Ester (NED) (197		time	6.52				24.10						48.50		54.62	8 / 5			
reaction time		interval					17.58						24.40	6.12	NR				
		velocity	6.90				7.96						7.17	6.54	7.32				
H1 lead leg	L	strides	23	14	14	15	15		15	15	16	16	17	20.5	180.5				
Urbansky, Ulrike (GER) (197		time	6.67				23.85						49.90		55.38	7 / 6			
reaction time		interval					17.18						26.05	5.48					
		velocity	6.75				8.15						6.72	7.30	7.22				
H1 lead leg	R	strides	24	15	15	15	15		15	16	16	17	17	20.5	185.5				
Knoroz, Anna (RUS) (1976)		time	6.60				23.90						49.32		55.47	1 / 7			
reaction time		interval					17.30						25.42	6.15					
		velocity	6.82				8.09						6.88	6.50	7.21				
H1 lead leg	L	strides	24	16	16	16	16		16	16	17	17	18	22	194				
Smith, Susan (IRL) (1971)		time	6.50				23.45						48.91		55.61	4 / 8			
reaction time		interval					16.95						25.46	6.70					
		velocity	6.92				8.26						6.87	5.97	7.19				
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	21.5	185.5				

1998 Spanish National Championships (San Sebastián, ESP)

FINAL

date 02-Aug-98

Ruiz (1998) - campeonato des españa absoluto: análisis de la carreras con villas

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Paniagua, Eva (ESP) (1974)		time	6.74	11.30	15.86	20.52	25.40		30.36	35.58	40.96	46.51	52.24		59.00	5 / 1			
reaction time		interval		4.56	4.56	4.66	4.88		4.96	5.22	5.38	5.55	5.73	6.76			13.78	15.06	16.66
		velocity	6.68	7.68	7.68	7.51	7.17		7.06	6.70	6.51	6.31	6.11	5.92	6.78		7.62	6.97	6.30
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	20.5	184.5				
Urcelay, Maite (ESP) (1972)		time	6.98	11.70	16.52	21.40	26.42		31.60	36.70	41.95	47.48	53.16		59.70	3 / 2			
reaction time		interval		4.72	4.82	4.88	5.02		5.18	5.10	5.25	5.53	5.68	6.54			14.42	15.30	16.46
		velocity	6.45	7.42	7.26	7.17	6.97		6.76	6.86	6.67	6.33	6.16	6.12	6.70		7.28	6.86	6.38
H1 lead leg	L	strides	23	16	16	16	16		17	17	17	18	18	21	195				
Alonso, Mariam (ESP) (1970)		time	6.63	11.23	15.82	20.60	25.60		30.67	35.92	41.38	47.09	52.94		60.10	6 / 3			
reaction time		interval		4.60	4.59	4.78	5.00		5.07	5.25	5.46	5.71	5.85	7.16			13.97	15.32	17.02
		velocity	6.79	7.61	7.63	7.32	7.00		6.90	6.67	6.41	6.13	5.98	5.59	6.66		7.52	6.85	6.17
H1 lead leg	L	strides	23	16	16	16	16		16	17	17	18	18	22	195				
Medina, Celia (ESP) (1977)		time	6.75	11.61	16.49	21.56	26.70		31.80	37.08	42.36	47.99	53.86		60.80	4 / 4			
reaction time		interval		4.86	4.88	5.07	5.14		5.10	5.28	5.28	5.63	5.87	6.94			14.81	15.52	16.78
		velocity	6.67	7.20	7.17	6.90	6.81		6.86	6.63	6.63	6.22	5.96	5.76	6.58		7.09	6.77	6.26
H1 lead leg	L	strides	22	16	16	17	17		17	17	17	18	18	21	196				
Pérez, Susana (ESP) (1974)		time	6.95	11.78	16.85	21.92	27.25		32.68	38.07	43.84	50.10	56.08		62.62	2 / 5			
reaction time		interval		4.83	5.07	5.07	5.33		5.43	5.39	5.77	6.26	5.98	6.54			14.97	16.15	18.01
		velocity	6.47	7.25	6.90	6.90	6.57		6.45	6.49	6.07	5.59	5.85	6.12	6.39		7.01	6.50	5.83
H1 lead leg	L	strides	23	16	17	16	17		17	17	18	19	18	20.5	198.5				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Masferrer, Cristina (ESP) (19	time	7.27	12.18	17.17	22.22	27.52	32.89	38.38	44.09	49.90	55.99		63.01	7 / 6			
reaction time	interval		4.91	4.99	5.05	5.30	5.37	5.49	5.71	5.81	6.09	7.02			14.95	16.16	17.61
	velocity	6.19	7.13	7.01	6.93	6.60	6.52	6.38	6.13	6.02	5.75	5.70	6.35		7.02	6.50	5.96
H1 lead leg L	strides	24	17	17	17	17	17	18	18	18	19	23	205				
Montero, Beatriz (ESP) (1977	time	6.84	11.76	16.88	22.17	27.70	33.17	38.89	44.70	50.64	56.74		64.54	8 / 7			
reaction time	interval		4.92	5.12	5.29	5.53	5.47	5.72	5.81	5.94	6.10	7.80			15.33	16.72	17.85
	velocity	6.58	7.11	6.84	6.62	6.33	6.40	6.12	6.02	5.89	5.74	5.13	6.20		6.85	6.28	5.88
H1 lead leg L	strides	23	16	17	17	17	17	18	18	18	18	23.5	202.5				

1997 IAAF World Championships (Athens, GRE)

FINAL

date 08-Aug-97

Hommel (1999) - biomechanical research project, athens 1997: final report

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bidouane, Nezha (MAR) (19	time	6.50	10.76	15.08	19.50	23.92		28.44	32.98	37.74	42.62	47.46		52.97	3 / 1			
reaction time 0.138	interval		4.26	4.32	4.42	4.42		4.52	4.54	4.76	4.88	4.84	5.51	AR		13.00	13.48	14.48
	velocity	6.92	8.22	8.10	7.92	7.92		7.74	7.71	7.35	7.17	7.23	7.26	7.55		8.08	7.79	7.25
H1 lead leg	strides																	
Hemmings, Deon (JAM) (19	time	6.46	10.58	14.72	19.00	23.36		27.76	32.36	37.22	42.20	47.31		53.09	4 / 2			
reaction time 0.187	interval		4.12	4.14	4.28	4.36		4.40	4.60	4.86	4.98	5.11	5.78			12.54	13.36	14.95
	velocity	6.97	8.50	8.45	8.18	8.03		7.95	7.61	7.20	7.03	6.85	6.92	7.53		8.37	7.86	7.02
H1 lead leg	strides																	
Batten, Kim (USA) (1969)	time	6.57	10.66	14.86	19.10	23.46		27.88	32.46	37.34	42.36	47.46		53.52	5 / 3			
reaction time 0.170	interval		4.09	4.20	4.24	4.36		4.42	4.58	4.88	5.02	5.10	6.06			12.53	13.36	15.00
	velocity	6.85	8.56	8.33	8.25	8.03		7.92	7.64	7.17	6.97	6.86	6.60	7.47		8.38	7.86	7.00
H1 lead leg	strides																	
Tereshchuk, Tetiana (UKR) (	time	6.44	10.58	14.80	19.14	23.56		28.08	32.72	37.54	42.60	47.78		53.81	6 / 4			
reaction time 0.156	interval		4.14	4.22	4.34	4.42		4.52	4.64	4.82	5.06	5.18	6.03	NR		12.70	13.58	15.06
	velocity	6.99	8.45	8.29	8.06	7.92		7.74	7.54	7.26	6.92	6.76	6.63	7.43		8.27	7.73	6.97
H1 lead leg	strides																	
Paris, Debbie (JAM) (1973)	time	6.44	10.83	14.78	19.38	23.52		28.46	33.20	38.00	43.04	48.24		54.19	8 / 5			
reaction time 0.206	interval		4.39	3.95	4.60	4.14		4.94	4.74	4.80	5.04	5.20	5.95			12.94	13.82	15.04
	velocity	6.99	7.97	8.86	7.61	8.45		7.09	7.38	7.29	6.94	6.73	6.72	7.38		8.11	7.60	6.98
H1 lead leg	strides																	
Buford-Bailey, Tonja (USA)	time	6.60	10.72	14.92	19.21	23.60		28.22	32.92	37.92	43.14	48.54		54.77	2 / 6			
reaction time 0.238	interval		4.12	4.20	4.29	4.39		4.62	4.70	5.00	5.22	5.40	6.23			12.61	13.71	15.62
	velocity	6.82	8.50	8.33	8.16	7.97		7.58	7.45	7.00	6.70	6.48	6.42	7.30		8.33	7.66	6.72
H1 lead leg	strides																	
Smith, Susan (IRL) (1971)	time	6.43	10.58	14.78	19.06	23.88		28.06	32.84	37.92	43.18	48.74		55.25	7 / 7			
reaction time 0.135	interval		4.15	4.20	4.28	4.82		4.18	4.78	5.08	5.26	5.56	6.51			12.63	13.78	15.90
	velocity	7.00	8.43	8.33	8.18	7.26		8.37	7.32	6.89	6.65	6.29	6.14	7.24		8.31	7.62	6.60
H1 lead leg	strides																	
Blackett, Andrea (BAR) (197	0.120	no information available												55.63	1 / 8			

1997 European Cup (Munich, GER)

FINAL

date 21-Jun-97

Jung (2003) - http://www.fgs.uni-halle.de

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Gunnell, Sally (GBR) (1966)	time	6.69	10.96	15.26	19.64	24.08		28.58	33.48	38.39	43.54	48.67		54.57	/ 1			
reaction time	interval		4.27	4.30	4.38	4.44		4.50	4.90	4.91	5.15	5.13	5.90			12.95	13.84	15.19
	velocity	6.73	8.20	8.14	7.99	7.88		7.78	7.14	7.13	6.80	6.82	6.78	7.33		8.11	7.59	6.91
H1 lead leg	strides																	
Rieger, Silvia (GER) (1970)	time	6.80	11.05	15.33	19.71	24.19		28.88	33.83	39.02	44.21	49.34		55.23	/ 2			
reaction time	interval		4.25	4.28	4.38	4.48		4.69	4.95	5.19	5.19	5.13	5.89			12.91	14.12	15.51
	velocity	6.62	8.24	8.18	7.99	7.81		7.46	7.07	6.74	6.74	6.82	6.79	7.24		8.13	7.44	6.77
H1 lead leg	strides																	
Bakhvalova, Yekaterina (RUS	time	6.78	11.14	15.52	20.03	24.72		29.50	34.45	39.57	44.83	50.01		55.66	/ 3			
reaction time	interval		4.36	4.38	4.51	4.69		4.78	4.95	5.12	5.26	5.18	5.65			13.25	14.42	15.56
	velocity	6.64	8.03	7.99	7.76	7.46		7.32	7.07	6.84	6.65	6.76	7.08	7.19		7.92	7.28	6.75
H1 lead leg	strides																	
Kurochkina, Tatyana (BLR) (	time	6.85		15.46	19.88	24.44		29.16	34.09	39.15	44.37	49.82		56.19	/ 4			
reaction time	interval			8.61	4.42	4.56		4.72	4.93	5.06	5.22	5.45	6.37			13.03	14.21	15.73
	velocity	6.57		8.13	7.92	7.68		7.42	7.10	6.92	6.70	6.42	6.28	7.12		8.06	7.39	6.68
H1 lead leg	strides																	
Lenskaya, Irina (UKR) (1971)	time	6.70	10.96	15.22	19.63	24.12		28.93	33.99	39.24	44.67	50.09		56.47	/ 5			
reaction time	interval		4.26	4.26	4.41	4.49		4.81	5.06	5.25	5.43	5.42	6.38			12.93	14.36	16.10
	velocity	6.72	8.22	8.22	7.94	7.80		7.28	6.92	6.67	6.45	6.46	6.27	7.08		8.12	7.31	6.52
H1 lead leg	strides																	
Delaune, Florence (FRA) (19	time	7.21	11.94	16.70	21.45	26.27		31.21	36.09	41.25	46.71	52.04		57.77	/ 6			

reaction time	interval		4.73	4.76	4.75	4.82	4.94	4.88	5.16	5.46	5.33	5.73			14.24	14.64	15.95
	velocity	6.24	7.40	7.35	7.37	7.26	7.09	7.17	6.78	6.41	6.57	6.98	6.92		7.37	7.17	6.58
H1 lead leg	strides																
Barbarino, Carla (ITA) (1967)	time	6.94	11.29	15.67	20.15	24.82	29.83	34.95	40.32	45.77	51.35		57.78	/ 7			
reaction time	interval		4.35	4.38	4.48	4.67	5.01	5.12	5.37	5.45	5.58	6.43			13.21	14.80	16.40
	velocity	6.48	8.05	7.99	7.81	7.49	6.99	6.84	6.52	6.42	6.27	6.22	6.92		7.95	7.09	6.40
H1 lead leg	strides																
Tîrlea, Ionela (ROU) (1976)	time	6.69	11.01	15.65	20.49	25.45	30.51	35.65	40.90	46.39	52.04		58.14	/ 8			
reaction time	interval		4.32	4.64	4.84	4.96	5.06	5.14	5.25	5.49	5.65	6.10			13.80	15.16	16.39
	velocity	6.73	8.10	7.54	7.23	7.06	6.92	6.81	6.67	6.38	6.19	6.56	6.88		7.61	6.93	6.41
H1 lead leg	strides																

1996 Olympic Games (Atlanta, GA)

Behm (1996) - 400m haies

FINAL date 31-Jul-96

McFarlane (2000) - the science of hurdling and speed

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Hemmings, Deon (JAM) (19	time	6.32	10.27	14.35	18.62	22.92		27.46	32.12	36.94	41.92	46.99		52.82	5 / 1		*McFarlane (2000)*	
reaction time 0.348	interval		3.95	4.08	4.27	4.30		4.54	4.66	4.82	4.98	5.07	5.83	OR / AR		12.30	13.50	14.87
	velocity	7.12	8.86	8.58	8.20	8.14		7.71	7.51	7.26	7.03	6.90	6.86	7.57		8.54	7.78	7.06
H1 lead leg	strides	23	15	15	15	15		15	15	16	16	17		162				
Batten, Kim (USA) (1969)	time	6.38	10.50	14.70	19.00	23.40		27.80	32.40	37.20	42.00	47.10		53.08	6 / 2		*McFarlane (2000)*	
reaction time 0.283	interval		4.12	4.20	4.30	4.40		4.40	4.60	4.80	4.80	5.10	5.98			12.62	13.40	14.70
	velocity	7.05	8.50	8.33	8.14	7.95		7.95	7.61	7.29	7.29	6.86	6.69	7.54		8.32	7.84	7.14
H1 lead leg	strides		15	15	15	15		15	15	16	17	17		140				
Buford-Bailey, Tonja (USA)	time	6.38	10.34	14.39	18.58	22.90		27.43	32.07	36.96	41.96	47.10		53.22	4 / 3		*McFarlane (2000)*	
reaction time 0.274	interval		3.96	4.05	4.19	4.32		4.53	4.64	4.89	5.00	5.14	6.12			12.20	13.49	15.03
	velocity	7.05	8.84	8.64	8.35	8.10		7.73	7.54	7.16	7.00	6.81	6.54	7.52		8.61	7.78	6.99
H1 lead leg	strides	23	15	15	15	15		15	16	16	16	16		162				
Paris, Debbie-Ann (JAM) (19	time	6.6	10.7	15.0	19.3	23.7		28.3	33.1	37.9	42.8	48.1		53.97	2 / 4		*Behm (1996)*	
reaction time 0.217	interval		4.1	4.3	4.3	4.4		4.6	4.8	4.8	4.9	5.3	5.87	PB		12.70	13.80	15.00
	velocity	6.82	8.54	8.14	8.14	7.95		7.61	7.29	7.29	7.14	6.60	6.81	7.41		8.27	7.61	7.00
H1 lead leg	strides	24	16	16	16	16		16	16	17	17	18		172				
Meißner, Heike (GER) (1970)	time	6.6	10.6	14.8	19.0	23.4		28.1	32.9	37.8	42.8	48.1		54.03	1 / 5		*Behm (1996)*	
reaction time 0.272	interval		4.0	4.2	4.2	4.4		4.7	4.8	4.9	5.0	5.3	5.93	PB		12.40	13.90	15.20
	velocity	6.82	8.75	8.33	8.33	7.95		7.45	7.29	7.14	7.00	6.60	6.75	7.40		8.47	7.55	6.91
H1 lead leg	strides	23	15	15	15	15		15	16	16	17	17		164				
Edeh, Rosey (CAN) (1966)	time	6.6	10.7	15.0	19.4	23.9		28.4	33.2	38.1	43.1	48.5		54.39	7 / 6		*Behm (1996)*	
reaction time 0.324	interval		4.1	4.3	4.4	4.5		4.5	4.8	4.9	5.0	5.4	5.89			12.80	13.80	15.30
	velocity	6.82	8.54	8.14	7.95	7.78		7.78	7.29	7.14	7.00	6.48	6.79	7.35		8.20	7.61	6.86
H1 lead leg	strides	22	15	15	15	15		15	15	15	17	17		161				
Tîrlea, Ionela (ROU) (1976)	time	6.6	10.6	14.9	19.3	23.8		28.4	33.2	38.1	43.2	48.6		54.40	8 / 7		*Behm (1996)*	
reaction time 0.343	interval		4.0	4.3	4.4	4.5		4.6	4.8	4.9	5.1	5.4	5.80	PB		12.70	13.90	15.40
	velocity	6.82	8.75	8.14	7.95	7.78		7.61	7.29	7.14	6.86	6.48	6.90	7.35		8.27	7.55	6.82
H1 lead leg	strides	22	15	15	15	15		15	16	16	17	17		163				
Rieger, Silvia (GER) (1970)	time	6.7	10.9	15.2	19.7	24.2		28.8	33.4	38.3	43.3	48.6		54.57	3 / 8		*Behm (1996)*	
reaction time 0.297	interval		4.2	4.3	4.5	4.5		4.6	4.6	4.9	5.0	5.3	5.97			13.00	13.70	15.20
	velocity	6.72	8.33	8.14	7.78	7.78		7.61	7.61	7.14	7.00	6.60	6.70	7.33		8.08	7.66	6.91
H1 lead leg	strides	23	15	15	15	15		15	16	16	17	17		164				

1996 Tarare, FRA

FINAL date 06-Jul-96

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Renaud, Anne (FRA) (1970)	time	7.1	11.5	15.8	20.2	24.9		29.8	34.8	39.8	45.0	50.6		56.82	/ 1			
reaction time	interval		4.4	4.3	4.4	4.7		4.9	5.0	5.0	5.2	5.6	6.22			13.10	14.60	15.80
	velocity	6.34	7.95	8.14	7.95	7.45		7.14	7.00	7.00	6.73	6.25	6.43	7.04		8.02	7.19	6.65
H1 lead leg	strides	22	15	15	15	15		15	16	16	16	16		161				
Dherbecourt, Isabelle (FRA)	time	7.1	11.6	16.0	20.5	25.2		30.0	35.0	40.2	45.4	51.1		57.06	/ 2			
reaction time	interval		4.5	4.4	4.5	4.7		4.8	5.0	5.2	5.2	5.7	5.96			13.40	14.50	16.10
	velocity	6.34	7.78	7.95	7.78	7.45		7.29	7.00	6.73	6.73	6.14	6.71	7.01		7.84	7.24	6.52
H1 lead leg	strides	24	16	16	16	16		16	17	17	18	18		174				

1996 USATF National Junior Championships (Delaware, OH)

FINAL date 29-Jun-96

USATF Women's Sprint Development (1996)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Foster, Charlynna (USA) (19	time	6.74	11.22	15.91	20.73	25.53		30.58	35.84	41.08	46.71	52.56		58.93	5 / 1			
reaction time	interval		4.48	4.69	4.82	4.80		5.05	5.26	5.24	5.63	5.85	6.37	PB		13.99	15.11	16.72
	velocity	6.68	7.81	7.46	7.26	7.29		6.93	6.65	6.68	6.22	5.98	6.28	6.79		7.51	6.95	6.28
H1 lead leg	strides																	
Powell, Shontel (USA) (1979)	time	6.89	11.51	16.04	20.61	25.25		30.18	35.68	41.38	46.94	52.70		59.46	4 / 2			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time	interval		4.62	4.53	4.57	4.64	4.93	5.50	5.70	5.56	5.76	6.76			13.72	15.07	17.02
	velocity	6.53	7.58	7.73	7.66	7.54	7.10	6.36	6.14	6.29	6.08	5.92	6.73		7.65	6.97	6.17
H1 lead leg	strides																
Dulin, Mandie (USA) (1977)	time	7.11	11.77	16.35	21.12	25.94	31.10	36.49	42.21	47.94	53.70		60.19	6 / 3			
reaction time	interval		4.66	4.58	4.77	4.82	5.16	5.39	5.72	5.73	5.76	6.49			14.01	15.37	17.21
	velocity	6.33	7.51	7.64	7.34	7.26	6.78	6.49	6.12	6.11	6.08	6.16	6.65		7.49	6.83	6.10
H1 lead leg	strides																
Ortiz, Yamelis (USA) (1978)	time	7.01	11.61	16.11	20.85	25.60	30.63	36.09	41.81	47.76	53.58		60.28	2 / 4			
reaction time	interval		4.60	4.50	4.74	4.75	5.03	5.46	5.72	5.95	5.82	6.70			13.84	15.24	17.49
	velocity	6.42	7.61	7.78	7.38	7.37	6.96	6.41	6.12	5.88	6.01	5.97	6.64		7.59	6.89	6.00
H1 lead leg	strides																
White, Yvette (USA) (1977)	time	7.11	11.81	16.61	21.42	26.24	31.36	36.60	42.14	47.76	53.59		60.39	7 / 5			
reaction time	interval		4.70	4.80	4.81	4.82	5.12	5.24	5.54	5.62	5.83	6.80			14.31	15.18	16.99
	velocity	6.33	7.45	7.29	7.28	7.26	6.84	6.68	6.32	6.23	6.00	5.88	6.62		7.34	6.92	6.18
H1 lead leg	strides																
Craft, Angela (USA) (1979)	time	7.27	12.14	16.98	21.73	26.52	31.66	36.94	42.34	48.07	54.06		61.31	8 / 6			
reaction time	interval		4.87	4.84	4.75	4.79	5.14	5.28	5.40	5.73	5.99	7.25			14.46	15.21	17.12
	velocity	6.19	7.19	7.23	7.37	7.31	6.81	6.63	6.48	6.11	5.84	5.52	6.52		7.26	6.90	6.13
H1 lead leg	strides																
Helberg, Amanda (USA) (197	time	7.27	11.96	16.57	21.28	26.11	31.30	36.91	42.71	48.70	54.92		62.17	3 / 7			
reaction time	interval		4.69	4.61	4.71	4.83	5.19	5.61	5.80	5.99	6.22	7.25			14.01	15.63	18.01
	velocity	6.19	7.46	7.59	7.43	7.25	6.74	6.24	6.03	5.84	5.63	5.52	6.43		7.49	6.72	5.83
H1 lead leg	strides																
Coleman, Ayana (USA) (1979	time	7.04	11.73	16.48	21.33	26.29	31.35	37.05	43.08	49.16	55.44		63.74	1 / 8			
reaction time	interval		4.69	4.75	4.85	4.96	5.06	5.70	6.03	6.08	6.28	8.30			14.29	15.72	18.39
	velocity	6.39	7.46	7.37	7.22	7.06	6.92	6.14	5.80	5.76	5.57	4.82	6.28		7.35	6.68	5.71
H1 lead leg	strides																

1996 USA Olympic Trials (Atlanta, GA)

FINAL date 16-Jun-96

USATF Women's Sprint Development (1996)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Batten, Kim (USA) (1969)		time	6.43	10.50	14.88	19.25	23.71	25.62	28.28	32.95	37.85	42.78	47.81		53.81	4 / 1			
reaction time		interval		4.07	4.38	4.37	4.46		4.57	4.67	4.90	4.93	5.03	6.00			12.82	13.70	14.86
		velocity	7.00	8.60	7.99	8.01	7.85	7.81	7.66	7.49	7.14	7.10	6.96	6.67	7.43		8.19	7.66	7.07
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	21	185				
Buford-Bailey, Tonja (USA)		time	6.47	10.67	14.85	19.17	23.57	25.45	28.08	32.95	37.85	42.87	47.78		53.92	3 / 2			
reaction time		interval		4.20	4.18	4.32	4.40		4.51	4.87	4.90	5.02	4.91	6.14			12.70	13.78	14.83
		velocity	6.96	8.33	8.37	8.10	7.95	7.86	7.76	7.19	7.14	6.97	7.13	6.51	7.42		8.27	7.62	7.08
H1 lead leg	L	strides	23	15	15	15	15		15	16	17	17	17	19	184				
Farmer-Patrick, Sandra (USA		time	6.49	10.75	15.08	19.41	23.93	25.86	28.63	33.47	38.17	43.07	48.10		54.07	5 / 3			
reaction time		interval		4.26	4.33	4.33	4.52		4.70	4.84	4.70	4.90	5.03	5.97			12.92	14.06	14.63
		velocity	6.93	8.22	8.08	8.08	7.74	7.73	7.45	7.23	7.45	7.14	6.96	6.70	7.40		8.13	7.47	7.18
H1 lead leg	R	strides	24	15	15	15	15		15	16	16	16	16	19	182				
Williams, Trevaia (USA) (196		time	6.47	10.51	14.85	19.28	23.78	25.21	28.48	33.31	38.28	43.37	48.55		54.87	7 / 4			
reaction time		interval		4.04	4.34	4.43	4.50		4.70	4.83	4.97	5.09	5.18	6.32	**PB**		12.81	14.03	15.24
		velocity	6.96	8.66	8.06	7.90	7.78	7.93	7.45	7.25	7.04	6.88	6.76	6.33	7.29		8.20	7.48	6.89
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	19.5	181.5				
Buchanan, Rebecca (USA) (		time	6.43	10.70	15.05	19.60	24.27	26.26	29.07	34.05	39.17	44.37	49.51		55.69	6 / 5			
reaction time		interval		4.27	4.35	4.55	4.67		4.80	4.98	5.12	5.20	5.14	6.18			13.17	14.45	15.46
		velocity	7.00	8.20	8.05	7.69	7.49	7.62	7.29	7.03	6.84	6.73	6.81	6.47	7.18		7.97	7.27	6.79
H1 lead leg	R	strides	23	15	15	16	16		16	16	16	17	17	20	187				
Williams, Tonya (USA) (1970		time	6.20	10.38	14.71	19.25	23.83	25.79	28.60	33.58	38.68	44.07			55.94	1 / 6			
reaction time		interval		4.18	4.33	4.54	4.58		4.77	4.98	5.10	5.39					13.05	14.33	
		velocity	7.26	8.37	8.08	7.71	7.64	7.75	7.34	7.03	6.86	6.49			7.15		8.05	7.33	
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	17	17	19.5	183.5				
Lee, Tonya (USA) (1969)		time	6.58	10.83	15.08	19.47	23.98	25.89	28.81	33.95	39.17				56.59	8 / 7			
reaction time		interval		4.25	4.25	4.39	4.51		4.83	5.14	5.22						12.89	14.48	
		velocity	6.84	8.24	8.24	7.97	7.76	7.72	7.25	6.81	6.70				7.07		8.15	7.25	
H1 lead leg	L	strides	24	16	16	16	16		17	17	17	18	18	21	196				
Jolivet, Rosa (USA) (1974)		time	6.67	10.97	15.31	19.81	24.43	26.41	29.33	34.47	39.80				57.53	2 / 8			
reaction time		interval		4.30	4.34	4.50	4.62		4.90	5.14	5.33						13.14	14.66	
		velocity	6.75	8.14	8.06	7.78	7.58	7.57	7.14	6.81	6.57				6.95		7.99	7.16	
H1 lead leg	L	strides	24	15	15	15	15		16	16	17	17	17	20	187				

1995 Weltklasse (Zurich, SUI)

FINAL date 19-Aug-95

Behm (1999) - Les 4 travaux de Marie-Jo

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pérec, Marie-José (FRA) (19	time	6.3	10.3	14.4	18.7	23.2		27.7	32.1	36.8	42.1	47.1		53.21	6 / 2			
reaction time	interval		4.0	4.1	4.3	4.5		4.5	4.4	4.7	5.3	5.0	6.11	NR / PB		12.40	13.40	15.00
	velocity	7.14	8.75	8.54	8.14	7.78		7.78	7.95	7.45	6.60	7.00	6.55	7.52		8.47	7.84	7.00
H1 lead leg L	strides	21	14	14	15	14		14	14	14	16	15	18.5	169.5				

1995 IAAF World Championships (Göteborg, SWE)

Behm (1999) - Les chiffres: Les podiums de tous le championnats

FINAL

date 11-Aug-95

Winckler/USATF (2001) - Level II: sprints, hurdles, and relays

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Batten, Kim (USA) (1969)	time					23.0								52.61	5 / 1		*Behm (1999)*	
reaction time	interval													WR				
	velocity					8.04								7.60				
H1 lead leg L	strides	23	15	15	15	15		15	16	16	17	17	21	185				
Buford-Bailey, Tonja (USA)	time	6.47	10.50	14.60	18.77	23.07		27.47	32.17	36.97	41.94	47.00		52.62	3 / 2		*Winckler (2001)*	
reaction time	interval		4.03	4.10	4.17	4.30		4.40	4.70	4.80	4.97	5.06	5.62	PB		12.30	13.40	14.83
	velocity	6.96	8.68	8.54	8.39	8.14		7.95	7.45	7.29	7.04	6.92	7.12	7.60		8.54	7.84	7.08
H1 lead leg L	strides	23	15	15	15	15		15	16	16	17	17	19.5	183.5				
Hemmings, Deon (JAM) (19	time					23.2								53.48	4 / 3		*Behm (1999)*	
reaction time	interval													NR				
	velocity					7.97								7.48				
H1 lead leg L	strides	22	15	15	15	15		15	15	16	16	17	19.7	180.7				
Meißner, Heike (GER) (1970)	no information available												NR	54.86	7 / 4			
Tereshcuk-Antipova, Tetiana (UKR) (196	no information available												PB	54.94	6 / 5			
Rieger, Silva (GER) (1970)	no information available													55.01	1 / 6			
Tîrlea, Ionela (ROU) (1976)	no information available													55.46	8 / 7			
Torshina-Alimzhanova, Natalya (KZK) (1	no information available													56.75	2 / 8			

1995 European Junior Championships (Nyiregyhaza, HUN)

Heat 3

date 28-Jul-95

Hommel (2007) - Sprinttechnik beobachten und analysieren!

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Urbansky, Ulrike (GER) (197	time	6.95	11.27	15.67	20.24	24.95		29.86	35.18	40.62	46.04	51.66		58.02	3 / 1			
reaction time	interval		4.32	4.40	4.57	4.71		4.91	5.32	5.44	5.42	5.62	6.36			13.29	14.94	16.48
	velocity	6.47	8.10	7.95	7.66	7.43		7.13	6.58	6.43	6.46	6.23	6.29	6.89		7.90	7.03	6.37
H1 lead leg	strides																	

1995 Bislett Games (Oslo, NOR)

FINAL

date 21-Jul-95

Behm (1999) - Les 4 travaux de Marie-Jo

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pérec, Marie-José (FRA) (19	time	6.6	10.9	15.2	19.5	23.9		28.5	33.4	38.1	43.2	48.3		53.92	/ 1			
reaction time	interval		4.3	4.3	4.3	4.4		4.6	4.9	4.7	5.1	5.1	5.62	PB		12.90	13.90	14.90
	velocity	6.82	8.14	8.14	8.14	7.95		7.61	7.14	7.45	6.86	6.86	7.12	7.42		8.14	7.55	7.05
H1 lead leg	strides		14	14	14	14		14	14	14	14	15		127				

1995 Gaz de France (Paris, FRA)

FINAL

date 03-Jul-95

Behm (1999) - Les 4 travaux de Marie-Jo

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pérec, Marie-José (FRA) (19	time	6.3	10.6	14.8	19.3	23.8		28.4	33.2	38.2	43.3	48.7		54.48	/ 1			
reaction time	interval		4.3	4.2	4.5	4.5		4.6	4.8	5.0	5.1	5.4	5.78	PB		13.00	13.90	15.50
	velocity	7.14	8.14	8.33	7.78	7.78		7.61	7.29	7.00	6.86	6.48	6.92	7.34		8.08	7.55	6.77
H1 lead leg	strides	20	14	14	14	14		14	15	15	15	15		150				

1995 European Cup (Villeneuve d'Ascq, FRA)

FINAL

date 24-Jun-95

Behm (1999) - Les 4 travaux de Marie-Jo

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Pérec, Marie-José (FRA) (19	time	6.6	10.9	15.3	19.7	24.3		28.9	33.7	38.7	43.8	48.8		54.51	/ 1			
reaction time	interval		4.3	4.4	4.4	4.6		4.6	4.8	5.0	5.1	5.0	5.71	PB		13.10	14.00	15.10
	velocity	6.82	8.14	7.95	7.95	7.61		7.61	7.29	7.00	6.86	7.00	7.01	7.34		8.02	7.50	6.95
H1 lead leg	strides	21	14	14	14	14		14	15	15	15	15		151				

1994 European Championships (Helsinki, FIN)

FINAL

date 10-Aug-94

Behm (1995) - la tactique du 400 haies

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Gunnell, Sally (GBR) (1966)	time	6.5	10.7	14.8	19.2	23.6		28.1	32.7	37.5	42.5	47.5		53.33	/ 1			
reaction time	interval		4.2	4.1	4.4	4.4		4.5	4.6	4.8	5.0	5.0	5.83			12.70	13.50	14.80
	velocity	6.92	8.33	8.54	7.95	7.95		7.78	7.61	7.29	7.00	7.00	6.86	7.50		8.27	7.78	7.09
H1 lead leg	strides	22	15	15	15	15		15	16	16	17	17		163				
Rieger, Silvia (GER) (1970)	time	6.6	10.7	14.9	19.3	23.7		28.2	32.8	38.4	43.5	48.7		54.68	/ 2			
reaction time	interval		4.1	4.2	4.4	4.4		4.5	4.6	5.6	5.1	5.2	5.98	PB		12.70	13.50	15.90
	velocity	6.82	8.54	8.33	7.95	7.95		7.78	7.61	6.25	6.86	6.73	6.69	7.32		8.27	7.78	6.60
H1 lead leg	strides		15	15	15	15		15	16	17	17	17		142				
Knoroz, Anna (RUS) (1970)	time	6.6	10.8	15.0	19.4	23.7		28.1	32.5	38.0	43.1	48.5		54.68	/ 3			
reaction time	interval		4.2	4.2	4.4	4.3		4.4	4.4	5.5	5.1	5.4	6.18			12.80	13.10	16.00
	velocity	6.82	8.33	8.33	7.95	8.14		7.95	7.95	6.36	6.86	6.48	6.47	7.32		8.20	8.02	6.56

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg	strides	16	16	16	16	16	16	17	17	18	148			

Meißner, Heike (GER) (1970)	no information available	54.79	/ 4
Kurochkina, Tatyana (BLR) (1967)	no information available	55.18	/ 5
Tereshchuk, Tetiana (UKR) (1969)	no information available	55.53	/ 6
Nazarova, Olga (RUS) (1962)	no information available	55.98	/ 7
Retchakan, Gowry (GBR) (1960)	no information available	56.05	/ 8

1993 Chinese National Games (Beijing, CHN)

Wang (2016) - hurdle rhythm characteristic analysis and athletic training considerations

FINAL

date 09-Sep-93

Xu (1993) - training about Zhen Liyuan in 400m hurdles

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Han Qing (CHN) (1970)		time	6.24	10.41	14.69	18.95	23.38		28.18	32.99	37.78	42.77	47.78		53.96	/ 1			*Jian (2016)*
reaction time		interval		4.17	4.28	4.26	4.43		4.80	4.81	4.79	4.99	5.01	6.18	AR		12.71	14.04	14.79
		velocity	7.21	8.39	8.18	8.22	7.90		7.29	7.28	7.31	7.01	6.99	6.47	7.41		8.26	7.48	7.10
H1 lead leg		strides	23	15	15	15	15		15	16	16	17	17		164				
Zheng Liyuan (CHN) (1974)		time	6.56	10.90	15.39	19.80	24.51		29.29	34.25	39.19	44.26	49.69		55.57	/ 5			*Xu (1993)*
reaction time		interval		4.34	4.49	4.41	4.71		4.78	4.96	4.94	5.07	5.43	5.88			13.24	14.45	15.44
		velocity	6.86	8.06	7.80	7.94	7.43		7.32	7.06	7.09	6.90	6.45	6.80	7.20		7.93	7.27	6.80
H1 lead leg		strides	23	15	15	15	15		16	16	17	17	17		166				

Winckler (1994) - principles for the development of the 400m hurdles program

1993 IAAF World Championships (Stuttgart, GER)

Veney (1994) - hurdle analysis- women's 400m hurdles 1993 world championships (semis and finals)

FINAL

date 19-Aug-93

Graubner (2008) - http://www.fgs.uni-halle.de

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Gunnell, Sally (GBR) (1966)		time	6.65	10.76	14.94	17.19	23.58		28.04	32.66	37.37	42.24	47.12		52.74	4 / 1			*Graubner (2008)*
reaction time	0.284	interval		4.11	4.18	2.25	6.39		4.46	4.62	4.71	4.87	4.88	5.62	WR		10.54	15.47	14.46
		velocity	6.77	8.52	8.37	15.56	5.48		7.85	7.58	7.43	7.19	7.17	7.12	7.58		9.96	6.79	7.26
H1 lead leg	L	strides	23	15	15	15	15		15	16	16	16	16	20.2	182.2				
Farmer-Patrick, Sandra (USA		time	6.52	10.57	14.72	18.93	23.31		27.90	32.79	37.38	42.20	47.04		52.79	6 / 2			*Graubner (2008)*
reaction time	0.300	interval		4.05	4.15	4.21	4.38		4.59	4.89	4.59	4.82	4.84	5.75	AR		12.41	13.86	14.25
		velocity	6.90	8.64	8.43	8.31	7.99		7.63	7.16	7.63	7.26	7.23	6.96	7.58		8.46	7.58	7.37
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	19.5	181.5				
Ponomaryova, Margareta (R		time	6.52	10.59	14.85	19.24	23.65		28.12	32.72	37.43	42.40	47.52		53.48	5 / 3			*Veney (1994)*
reaction time		interval		4.07	4.26	4.39	4.41		4.47	4.60	4.71	4.97	5.12	5.96	PB		12.72	13.48	14.80
		velocity	6.90	8.60	8.22	7.97	7.94		7.83	7.61	7.43	7.04	6.84	6.71	7.48		8.25	7.79	7.09
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Batten, Kim (USA) (1969)		time	6.40	10.56	14.89	19.19	23.76		28.12	32.99	37.86	42.87	47.93		53.84	7 / 4			*Veney (1994)*
reaction time		interval		4.16	4.33	4.30	4.57		4.36	4.87	4.87	5.01	5.06	5.91	PB		12.79	13.80	14.94
		velocity	7.03	8.41	8.08	8.14	7.66		8.03	7.19	7.19	6.99	6.92	6.77	7.43		8.21	7.61	7.03
H1 lead leg	L	strides	24	16	16	16	16		16	17	17	17			155				
Buford-Bailey, Tonja (USA)		time	6.64	10.67	14.89	19.24	23.71		28.44	33.24	38.31	43.42	48.66		54.55	2 / 5			*Winckler (1994)*
reaction time		interval		4.03	4.22	4.35	4.47		4.73	4.80	5.07	5.11	5.24	5.89			12.60	14.00	15.42
		velocity	6.78	8.68	8.29	8.05	7.83		7.40	7.29	6.90	6.85	6.68	6.79	7.33		8.33	7.50	6.81
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16	17		164				

Hemming, Deon (JAM) (1968)	no information available	54.99	3 / 6
Edeh, Rosey (CAN) (1966)	no information available	55.16	1 / 7
Torshina, Natalys (KZK) (1968)	no information available	55.78	8 / 8

Semi-Final 3

date 17-Aug-93

Veney (1994) - hurdle analysis- women's 400m hurdles 1993 world championships (semis and finals)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Farmer-Patrick, Sandra (USA		time	6.38	10.52	14.68	18.98	23.42		27.91	32.56	37.44	42.47	47.71		53.88	3 / 1			
reaction time		interval		4.14	4.16	4.30	4.44		4.49	4.65	4.88	5.03	5.24	6.17			12.60	13.58	15.15
		velocity	7.05	8.45	8.41	8.14	7.88		7.80	7.53	7.17	6.96	6.68	6.48	7.42		8.33	7.73	6.93
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	16	19.2	181.2				
Hemmings, Deon (JAM) (19		time	6.36	10.52	14.71	19.09	23.54		28.03	32.75	37.84	42.93	48.13		54.12	6 / 2			
reaction time		interval		4.16	4.19	4.38	4.45		4.49	4.72	5.09	5.09	5.20	5.99	NR		12.73	13.66	15.38
		velocity	7.08	8.41	8.35	7.99	7.87		7.80	7.42	6.88	6.88	6.73	6.68	7.39		8.25	7.69	6.83
H1 lead leg	L	strides	22	15	15	15	15		15	15	17	17	17	19.7	182.7				
Ledovskaya, Tatyana (BLR) (		time	6.30	10.32	14.64	18.81	23.19		27.74	32.60	37.67	42.93	48.32		54.60	5 / 3			
reaction time		interval		4.02	4.32	4.17	4.38		4.55	4.86	5.07	5.26	5.39	6.28			12.51	13.79	15.72
		velocity	7.14	8.71	8.10	8.39	7.99		7.69	7.20	6.90	6.65	6.49	6.37	7.33		8.39	7.61	6.68
H1 lead leg	R	strides	23	15	15	15	15		16	16	17	17	17	21	187				

Semi-Final 2

date 17-Aug-93

Veney (1994) - hurdle analysis- women's 400m hurdles 1993 world championships (semis and finals)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ponomaryova, Margareta (R		time	6.54	10.65	14.94	19.14	23.56		28.08	32.69	37.48	42.56	47.83		53.71	5 / 1			
reaction time		interval		4.11	4.29	4.20	4.42		4.52	4.61	4.79	5.08	5.27	5.88			12.60	13.55	15.14
		velocity	6.88	8.52	8.16	8.33	7.92		7.74	7.59	7.31	6.89	6.64	6.80	7.45		8.33	7.75	6.94
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	16	19	178				
Batten, Kim (USA) (1969)		time	6.58	10.85	15.19	19.56	24.11		28.76	33.51	38.39	43.33	48.39		54.20	6 / 2			
reaction time		interval		4.27	4.34	4.37	4.55		4.65	4.75	4.88	4.94	5.06	5.81			12.98	13.95	14.88

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity	6.84	8.20	8.06	8.01	7.69	7.53	7.37	7.17	7.09	6.92	6.88	7.38		8.09	7.53	7.06
H1 lead leg	L	strides	24	16	16	16	16	16	17	17	17	17	20.2	192.2				
Torshina, Natalya (KAZ) (19		time	6.53	10.79	15.12	19.52	23.93	28.57	33.43	38.40	43.45	48.65		54.53	4 / 3			
reaction time		interval		4.26	4.33	4.40	4.41	4.64	4.86	4.97	5.05	5.20	5.88	PB		12.99	13.91	15.22
		velocity	6.89	8.22	8.08	7.95	7.94	7.54	7.20	7.04	6.93	6.73	6.80	7.34		8.08	7.55	6.90
H1 lead leg	L	strides	23	15	15	15	15	16	16	17	17	17	21	187				
Edeh, Rosey (CAN) (1966)		time	6.55	10.73	15.08	19.50	23.94	28.54	33.25	38.13	43.35	48.60		54.53	3 / 4			
reaction time		interval		4.18	4.35	4.42	4.44	4.60	4.71	4.88	5.22	5.25	5.93			12.95	13.75	15.35
		velocity	6.87	8.37	8.05	7.92	7.88	7.61	7.43	7.17	6.70	6.67	6.75	7.34		8.11	7.64	6.84
H1 lead leg	L	strides	22	15	15	15	15	15	15	15	17	17	20.5	181.5				

Semi-Final 1

date 17-Aug-93

Veney (1994) - hurdle analysis- women's 400m hurdles 1993 world championships (semis and finals)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Gunnell, Sally (GBR) (1966)		time	6.79	10.85	14.97	19.21	23.55		28.06	33.14	37.87	43.07	48.27		53.95	6 / 1			
reaction time		interval		4.06	4.12	4.24	4.34		4.51	5.08	4.73	5.20	5.20	5.68			12.42	13.93	15.13
		velocity	6.63	8.62	8.50	8.25	8.06		7.76	6.89	7.40	6.73	6.73	7.04	7.41		8.45	7.54	6.94
H1 lead leg	L	strides	23	15	15	15	15		15	16	17	17	17	19.5	184.5				
Buford-Bailey, Tonja (USA)		time	6.83	11.06	15.39	19.79	24.32		29.03	33.75	38.66	43.60	48.81		54.38	5 / 2			
reaction time		interval		4.23	4.33	4.40	4.53		4.71	4.72	4.91	4.94	5.21	5.57	PB		12.96	13.96	15.06
		velocity	6.59	8.27	8.08	7.95	7.73		7.43	7.42	7.13	7.09	6.72	7.18	7.36		8.10	7.52	6.97
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16	17	19.7	183.7				
Meißner, Heike (GER) (1970)		time	6.53	10.67	14.89	19.27	23.62		28.11	32.99	38.06	43.26	48.56		54.64	2 / 3			
reaction time		interval		4.14	4.22	4.38	4.35		4.49	4.88	5.07	5.20	5.30	6.08			12.74	13.72	15.57
		velocity	6.89	8.45	8.29	7.99	8.05		7.80	7.17	6.90	6.73	6.60	6.58	7.32		8.24	7.65	6.74
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	21	185				

1992 ??? (???)

FINAL

date ???

Cui (2008) - research on the rhythm characteristics of outstanding female 400m hurdlers in China

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Leng Xueyan (CHN) (1972)		time	6.44	10.80	15.29	19.92	24.53		29.03	34.06	39.49	44.68	49.90		56.40	???			
reaction time		interval		4.36	4.49	4.63	4.61		4.50	5.03	5.43	5.19	5.22	6.50			13.48	14.14	15.84
		velocity	6.99	8.03	7.80	7.56	7.59		7.78	6.96	6.45	6.74	6.70	6.15	7.09		7.79	7.43	6.63
H1 lead leg		strides	23	16	16	16	16		16	16	17	17	17	22.5	192.5				

1992 Olympic Games (Barcelona, ESP)

FINAL

date 05-Aug-92

Knight (1992) - 1992 Olympic report: the hurdling events

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Gunnell, Sally (GBR) (1966)		time	6.5	10.7	14.0	19.3	23.7		28.2	32.9	37.6	42.5	47.4		53.23	3 / 1			
reaction time		interval		4.20	3.30	5.30	4.40		4.50	4.70	4.70	4.90	4.90	5.83			12.80	13.60	14.50
		velocity	6.92	8.33	10.61	6.60	7.95		7.78	7.45	7.45	7.14	7.14	6.86	7.51		8.20	7.72	7.24
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	16	20.2	181.2				
Farmer-Patrick, Sandra (USA		time	6.5	10.5	13.7	19.1	23.5		28.2	33.0	37.8	42.8	47.6		53.69	4 / 2			
reaction time		interval		4.00	3.20	5.40	4.40		4.70	4.80	4.80	5.00	4.80	6.09			12.60	13.90	14.60
		velocity	6.92	8.75	10.94	6.48	7.95		7.45	7.29	7.29	7.00	7.29	6.57	7.45		8.33	7.55	7.19
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	17	17	19.2	183.2				
Vickers, Janeene (USA) (196		time	6.4	10.5	13.8	19.2	23.6		28.1	32.8	37.6	42.6	48.0		54.31	1 / 3			
reaction time		interval		4.10	3.30	5.40	4.40		4.50	4.70	4.80	5.00	5.40	6.31			12.80	13.60	15.20
		velocity	7.03	8.54	10.61	6.48	7.95		7.78	7.45	7.29	7.00	6.48	6.34	7.37		8.20	7.72	6.91
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	19.7	179.7				
Ledovskaya, Tatyana (EUN) (1966)		no information available													54.31	8 / 4			
Ordina, Vera (EUN) (1968)		no information available													54.83	5 / 5			
Ponomaryova, Margarita (EUN) (1963)		no information available													54.83	6 / 6			
Hemings, Deon (JAM) (1968)		no information available													55.58	7 / 7			

Semi-Final 1

date 03-Aug-92

Lyle (1992) - miscellaneous coaching notes

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Gunnell, Sally (GBR) (1966)		time	5.92	10.08	14.26	18.39	22.94		27.69	32.37	37.32	42.49	47.63		53.78	4 / 1			
reaction time		interval		4.16	4.18	4.13	4.55		4.75	4.68	4.95	5.17	5.14	6.15			12.47	13.98	15.26
		velocity	7.60	8.41	8.37	8.47	7.69		7.37	7.48	7.07	6.77	6.81	6.50	7.44		8.42	7.51	6.88
H1 lead leg		strides																	
Vickers, Janeene (USA) (196		time	6.62	10.80	15.08	19.41	23.96		28.61	33.39	38.34	43.51	48.65		54.67	6 / 3			
reaction time		interval		4.18	4.28	4.33	4.55		4.65	4.78	4.95	5.17	5.14	6.02			12.79	13.98	15.26
		velocity	6.80	8.37	8.18	8.08	7.69		7.53	7.32	7.07	6.77	6.81	6.64	7.32		8.21	7.51	6.88
H1 lead leg		strides																	

Heat 4

date 02-Aug-92

Lyle (1992) - miscellaneous coaching notes

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Buford-Bailey, Tonja (USA)		time	6.54	10.71	14.94	19.30	23.89		28.78	33.77	38.89	44.23	49.89		56.35	2 / 3			
reaction time		interval		4.17	4.23	4.36	4.59		4.89	4.99	5.12	5.34	5.66	6.46			12.76	14.47	16.12
		velocity	6.88	8.39	8.27	8.03	7.63		7.16	7.01	6.84	6.55	6.18	6.19	7.10		8.23	7.26	6.51
H1 lead leg		strides																	

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Heat 3

date 02-Aug-92

Lyle (1992) - miscellaneous coaching notes

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Vickers, Janeene (USA) (1968	time	6.63	10.91	15.32	19.75	24.25		28.97	33.86	38.82	43.99	49.40		55.24	4 / 1			
reaction time	interval		4.28	4.41	4.43	4.50		4.72	4.89	4.96	5.17	5.41	5.84			13.12	14.11	15.54
	velocity	6.79	8.18	7.94	7.90	7.78		7.42	7.16	7.06	6.77	6.47	6.85	7.24		8.00	7.44	6.76
H1 lead leg	strides																	

Heat 2

date 02-Aug-92

Lyle (1992) - miscellaneous coaching notes

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ledovskaya, Tatyana (EUN) (	time	6.30	10.64	14.89	19.17	23.63		28.18	32.98	37.95	43.24	48.82		55.03	4 / 1			
reaction time	interval		4.34	4.25	4.28	4.46		4.55	4.80	4.97	5.29	5.58	6.21			12.87	13.81	15.84
	velocity	7.14	8.06	8.24	8.18	7.85		7.69	7.29	7.04	6.62	6.27	6.44	7.27		8.16	7.60	6.63
H1 lead leg	strides																	

Heat 1

date 02-Aug-92

Lyle (1992) - miscellaneous coaching notes

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Farmer-Patrick, Sandra (USA	time	6.90	11.11	15.46	19.91	24.51		29.21	33.95	39.07	44.13	49.33		55.12	6 / 1			
reaction time	interval		4.21	4.35	4.45	4.60		4.70	4.74	5.12	5.06	5.20	5.79			13.01	14.04	15.38
	velocity	6.52	8.31	8.05	7.87	7.61		7.45	7.38	6.84	6.92	6.73	6.91	7.26		8.07	7.48	6.83
H1 lead leg	strides																	

1992 U23 European Cup (Villeneuve d'Ascq, FRA)

FINAL

date 18-Jul-92

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Nelson, Carole (FRA) (1971)	time	6.75	11.10	15.59	20.17	24.93		29.70	34.45	39.37	44.67	49.99		56.61	/ 1			
reaction time	interval		4.35	4.49	4.58	4.76		4.77	4.75	4.92	5.30	5.32	6.62			13.42	14.28	15.54
	velocity	6.67	8.05	7.80	7.64	7.35		7.34	7.37	7.11	6.60	6.58	6.04	7.07		7.82	7.35	6.76
H1 lead leg	strides	23	16	16	16	16		17	17	17	18	18	22	196				

1992 French National Championships (Narbonne, FRA)

FINAL

date 28-Jun-92

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Deniau, Lydie (FRA) (1971)	time	6.96	11.60	16.28	20.96	25.76		30.76	35.76	40.96	46.16	51.76		58.42	/ 2			
reaction time	interval		4.64	4.68	4.68	4.80		5.00	5.00	5.20	5.20	5.60	6.66			14.00	14.80	16.00
	velocity	6.47	7.54	7.48	7.48	7.29		7.00	7.00	6.73	6.73	6.25	6.01	6.85		7.50	7.09	6.56
H1 lead leg	strides	23	15	16	16	16		17	17	17	17	18	22	194				
Robin, Sandrine (FRA)	time	7.00	11.64	16.30	21.00	25.90		31.00	36.20	41.44	46.88	52.32		58.42	/ 3			
reaction time	interval		4.64	4.66	4.70	4.90		5.10	5.20	5.24	5.44	5.44	6.10			14.00	15.20	16.12
	velocity	6.43	7.54	7.51	7.45	7.14		6.86	6.73	6.68	6.43	6.43	6.56	6.85		7.50	6.91	6.51
H1 lead leg	strides	24	16	16	16	16		17	17	17	18	18	22	197				

1991 ??? (???)

FINAL

date ???

Cui (2008) - research on the rhythm characteristics of outstanding female 400m hurdlers in China

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Leng Xueyan (CHN) (1972)	time	6.55	11.13	15.67	20.46	25.33		30.37	35.82	41.09	46.35	51.71		58.15	???			
reaction time	interval		4.58	4.54	4.79	4.87		5.04	5.45	5.27	5.26	5.36	6.44			13.91	15.36	15.89
	velocity	6.87	7.64	7.71	7.31	7.19		6.94	6.42	6.64	6.65	6.53	6.21	6.88		7.55	6.84	6.61
H1 lead leg	strides	24	16	16	16	16		17	17	17	17	17	23	196				

1991 IAAF World Championships (Tokyo, JPN)

FINAL

date 29-Aug-91

Behm (1995) - la tactique du 400 haies

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ledovskaya, Tatyana (URS) (		time	6.3	10.5	14.7	18.9	23.2		27.7	32.3	36.9	41.9	47.1		53.11	6 / 1			
reaction time		interval		4.2	4.2	4.2	4.3		4.5	4.6	4.6	5.0	5.2	6.01	CR / NR		12.60	13.40	14.80
		velocity	7.14	8.33	8.33	8.33	8.14		7.78	7.61	7.61	7.00	6.73	6.66	7.53		8.33	7.84	7.09
H1 lead leg	R	strides	22	15	15	15	15		15	15	15	16	17	20.7	180.7				
Gunnell, Sally (GBR) (1966)		time	6.4	10.7	15.0	19.1	23.5		28.0	32.6	37.3	42.1	47.2		53.16	5 / 2			
reaction time		interval		4.3	4.3	4.1	4.4		4.5	4.6	4.7	4.8	5.1	5.96	NR		12.70	13.50	14.60
		velocity	7.03	8.14	8.14	8.54	7.95		7.78	7.61	7.45	7.29	6.86	6.71	7.52		8.27	7.78	7.19
H1 lead leg	R	strides	23	15	15	15	15		15	16	16	16	17	20.5	183.5				
Vickers, Janeene (USA) (1968		time	6.4	10.7	14.9	19.0	23.6		28.2	32.9	37.6	42.6	47.7		53.47	7 / 3			
reaction time		interval		4.3	4.2	4.1	4.6		4.6	4.7	4.7	5.0	5.1	5.77	PB		12.60	13.90	14.80
		velocity	7.03	8.14	8.33	8.54	7.61		7.61	7.45	7.45	7.00	6.86	6.93	7.48		8.33	7.55	7.09
H1 lead leg	R	strides		15	15	15	15		15	16	16	16	16	18.7	157.7				

Farmer-Patrick, Sandra (USA) (1962)	no information available	53.95	4 / 4
Batten, Kim (USA) (1969)	no information available	53.98	8 / 5
Protti, Anita (SUI) (1964)	no information available	54.25	3 / 6
Meißner, Heike (GER) (1970)	no information available	55.26	1 / 7
Khromova-Ponomaryova, Margarita (UR	no information available	55.27	2 / 8

1991 European Cup (Frankfurt, FRG)

FINAL

date 29-Jun-91

Federle (2003) - http://www.fgs.uni-halle.de

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ponomarjowa, Margareta (Ul	time	6.71	10.78	14.99	19.35	23.77		28.25	32.86	37.63	42.81	48.40		54.42	/ 1			
reaction time	interval		4.07	4.21	4.36	4.42		4.48	4.61	4.77	5.18	5.59	6.02			12.64	13.51	15.54
	velocity	6.71	8.60	8.31	8.03	7.92		7.81	7.59	7.34	6.76	6.26	6.64	7.35		8.31	7.77	6.76
H1 lead leg	strides																	
Gunnell, Sally (GBR) (1966)	time	6.61	10.76	15.00	19.36	23.83		28.31	33.16	38.25	43.55	48.89		54.61	/ 2			
reaction time	interval		4.15	4.24	4.36	4.47		4.48	4.85	5.09	5.30	5.34	5.72			12.75	13.80	15.73
	velocity	6.81	8.43	8.25	8.03	7.83		7.81	7.22	6.88	6.60	6.55	6.99	7.32		8.24	7.61	6.68
H1 lead leg	strides																	
Meißner, Heike (GER) (1970)	time	6.57	10.76	15.12	19.54	24.01		28.60	33.42	38.59	44.03	49.53		55.64	/ 3			
reaction time	interval		4.19	4.36	4.42	4.47		4.59	4.82	5.17	5.44	5.50	6.11			12.97	13.88	16.11
	velocity	6.85	8.35	8.03	7.92	7.83		7.63	7.26	6.77	6.43	6.36	6.55	7.19		8.10	7.56	6.52
H1 lead leg	strides																	

1990 European Championships (Split, YUG)

FINAL date 31-Aug-90

Behm (1995) - la tactique du 400 haies

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ledovskaya, Tatyana (URS) (	time	6.2	10.4	14.5	18.7	23.0		27.5	32.1	37.1	42.1	47.5		53.62	/ 1			
reaction time	interval		4.2	4.1	4.2	4.3		4.5	4.6	5.0	5.0	5.4	6.12			12.50	13.40	15.40
	velocity	7.26	8.33	8.54	8.33	8.14		7.78	7.61	7.00	7.00	6.48	6.54	7.46		8.40	7.84	6.82
H1 lead leg	strides	23	15	15	15	15		15	15	15	16	17		161				
Protti, Anita (SUI) (1964)	time	6.8	11.1	15.3	19.7	24.1		28.6	33.3	38.1	43.1	48.4		54.36	/ 2			
reaction time	interval		4.3	4.2	4.4	4.4		4.5	4.7	4.8	5.0	5.3	5.96	PB		12.90	13.60	15.10
	velocity	6.62	8.14	8.33	7.95	7.95		7.78	7.45	7.29	7.00	6.60	6.71	7.36		8.14	7.72	6.95
H1 lead leg	strides		17	17	17	17		17	17	17	19	19		157				
Westén, Monica (SWE) (196	time	6.7	10.9	15.3		24.2			33.6	38.5	43.5	48.6		54.75	/ 3			
reaction time	interval		4.2	4.4		8.9			9.4	4.9	5.0	5.1	6.15					15.00
	velocity	6.72	8.33	7.95		7.87			7.45	7.14	7.00	6.86	6.50	7.31				7.00
H1 lead leg	strides		15	15	15	15		15	15	15	16	16		137				
Abt, Gudrun (FRG) (1962)		no information available												54.97	/ 4			
Ponomaryov, Margareta (URS) (1963)		no information available												55.22	/ 5			
Gunnell, Sally (GBR) (1966)		no information available												55.45	/ 6			

1990 Résisprint International (La Chaux-de-Fond, FRA)

FINAL date 19-Aug-90

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Cazier, Marie-Christine (FRA	time	6.55	10.70	15.10	19.50	24.10		28.80	33.75	38.90	44.15	49.55		55.50	/ 1			
reaction time	interval		4.15	4.40	4.40	4.60		4.70	4.95	5.15	5.25	5.40	5.95	PB		12.95	14.25	15.80
	velocity	6.87	8.43	7.95	7.95	7.61		7.45	7.07	6.80	6.67	6.48	6.72	7.21		8.11	7.37	6.65
H1 lead leg	strides		15	15	15	15		15	16	16	17	17		141				

1990 Asian Games Test (Beijing, CHN)

Guo (2007) - study on relationship between the rhythm and performance of 400m hurdles

FINAL date 24-Jun-90

Fan (1992) - implementing Chen Dongmei's four-year training plan: regularities of 400m hurdles

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Chen Juying (CHN) (1963)	time	6.56	10.82	15.19	19.71	24.30		29.02	33.87	38.89	44.05	49.28		55.12	/ 1			*Guo (2007)*
reaction time	interval		4.26	4.37	4.52	4.59		4.72	4.85	5.02	5.16	5.23	5.84			13.15	14.16	15.41
	velocity	6.86	8.22	8.01	7.74	7.63		7.42	7.22	6.97	6.78	6.69	6.85	7.26		7.98	7.42	6.81
H1 lead leg	strides	23	15	15	15	15		15	17	17	17	17		166				
Chen Dongmei (CHN) (1963)	time	6.40	10.86	15.07	19.46	23.92		28.82	33.50	38.58	43.84	49.19		55.68	/ 2			*Fan (1992)*
reaction time	interval		4.46	4.21	4.39	4.46		4.90	4.68	5.08	5.26	5.35	6.49			13.06	14.04	15.69
	velocity	7.03	7.85	8.31	7.97	7.85		7.14	7.48	6.89	6.65	6.54	6.16	7.18		8.04	7.48	6.69
H1 lead leg	strides	23	16	16	16	16		17	17	17	17	18	22	195				

1990 Eight Nations (Milano, ITA)

FINAL date 05-Jun-90

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Cazier, Marie-Christine (FRA	time	6.0	10.1	14.3	18.7	23.2		28.2	33.6	39.6	45.0	51.1		58.63	/ 7			
reaction time	interval		4.1	4.2	4.4	4.5		5.0	5.4	6.0	5.4	6.2	7.53			12.67	14.92	17.51
	velocity	7.50	8.58	8.27	8.03	7.71		6.97	6.53	5.83	6.53	5.69	5.31	6.82		8.29	7.04	6.00
H1 lead leg	strides																	

1989 ??? (???)

FINAL date ???

Fan (1992) - implementing Chen Dongmei's four-year training plan: regularities of 400m hurdles

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Chen Dongmei (CHN) (1963)	time	6.63	11.17	15.75	20.48	25.14		30.16	35.01	40.09	45.32	50.48		56.63	???			
reaction time	interval		4.54	4.58	4.73	4.66		5.02	4.85	5.08	5.23	5.16	6.15	NR		13.85	14.53	15.47
	velocity	6.79	7.71	7.64	7.40	7.51		6.97	7.22	6.89	6.69	6.78	6.50	7.06		7.58	7.23	6.79
H1 lead leg	strides	24	17	17	17	17		17	17	17	18	17	22	200				

1988 Olympic Games (Seoul, KOR)

Gill (1990) - atletismo (I) carreras y marcha

FINAL date 28-Sep-88

Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10

Flintoff-King, Debbie (AUS)		time	6.53	10.69	14.93	19.30	23.71	25.61	28.26	32.93	37.68	42.64	47.68		53.17	5 / 1		*Brüggemann (1990)*	
reaction time	0.251	interval		4.16	4.24	4.37	4.41		4.55	4.67	4.75	4.96	5.04	5.49	OR / AR		12.77	13.63	14.75
		velocity	6.89	8.41	8.25	8.01	7.94	7.81	7.69	7.49	7.37	7.06	6.94	7.29	7.52		8.22	7.70	7.12
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	16	19.7	180.7				
Ledovskaya, Tatyana (URS) (		time	6.36	10.41	14.49	18.69	23.06	24.96	27.61	32.41	37.27	42.29	47.44		53.18	3 / 2		*Brüggemann (1990)*	
reaction time	0.245	interval		4.05	4.08	4.20	4.37		4.55	4.80	4.86	5.02	5.15	5.74	PB		12.33	13.72	15.03
		velocity	7.08	8.64	8.58	8.33	8.01	8.01	7.69	7.29	7.20	6.97	6.80	6.97	7.52		8.52	7.65	6.99
H1 lead leg	R	strides	23	15	15	15	15		16	16	16	16	17	20.2	184.2				
Fiedler, Ellen (GDR) (1958)		time	6.33	10.37	14.49	18.76	23.22		27.77	32.43	37.25	42.39	47.59		53.63	6 / 3		*Gill (1990)*	
reaction time	0.172	interval		4.04	4.12	4.27	4.46		4.55	4.66	4.82	5.14	5.20	6.04	PB		12.43	13.67	15.16
		velocity	7.11	8.66	8.50	8.20	7.85		7.69	7.51	7.26	6.81	6.73	6.62	7.46		8.45	7.68	6.93
H1 lead leg	R	strides	23	15	15	15	15		15	15	15	16	16	20	180				
Busch, Sabine (GDR) (1962)		time	6.61	10.68	14.86	19.18	23.62		28.19	32.79	37.56	42.57	47.76		53.89	7 / 4		*Brüggemann (1990)*	
reaction time	0.283	interval		4.07	4.18	4.32	4.44		4.57	4.60	4.77	5.01	5.19	6.13			12.57	13.61	14.97
		velocity	6.81	8.60	8.37	8.10	7.88		7.66	7.61	7.34	6.99	6.74	6.53	7.42		8.35	7.71	7.01
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16	19.4	179.4				
Gunnell, Sally (GBR) (1966)		time	6.64	10.81	15.09	19.45	23.94	25.94	28.39	33.11	38.07	43.20	48.28		54.03	2 / 5		*Brüggemann (1990)*	
reaction time	0.188	interval		4.17	4.28	4.36	4.49		4.45	4.72	4.96	5.13	5.08	5.75	PB		12.81	13.66	15.17
		velocity	6.78	8.39	8.18	8.03	7.80	7.71	7.87	7.42	7.06	6.82	6.89	6.96	7.40		8.20	7.69	6.92
H1 lead leg	L	strides	23	15	15	15	15		15	15	17	17	17	20.4	184.4				
Abt, Gudrun (FRG) (1962)		time	6.53	10.69	14.98	19.30	23.82		28.43	33.11	37.95	43.04	48.28		54.04	8 / 6		*Brüggemann (1990)*	
reaction time	0.316	interval		4.16	4.29	4.32	4.52		4.61	4.68	4.84	5.09	5.24	5.76	PB		12.77	13.81	15.17
		velocity	6.89	8.41	8.16	8.10	7.74		7.59	7.48	7.23	6.88	6.68	6.94	7.40		8.22	7.60	6.92
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16	19.3	179.3				
Kurochkina, Tatyana (URS) (		time	6.52	10.57	14.73	19.05	23.46		27.98	32.67	37.59	42.79	48.18		54.39	1 / 7		*Brüggemann (1990)*	
reaction time	0.231	interval		4.05	4.16	4.32	4.41		4.52	4.69	4.92	5.20	5.39	6.21	PB		12.53	13.62	15.51
		velocity	6.90	8.64	8.41	8.10	7.94		7.74	7.46	7.11	6.73	6.49	6.44	7.35		8.38	7.71	6.77
H1 lead leg	L	strides	23	15	15	15	15		15	15	16	16	17	20.1	182.1				
Sheffield, LaTanya (USA) (19		time	6.44	10.53	14.73	19.09	23.74		28.55	33.37	38.31	43.44	48.88		55.32	4 / 8		*Brüggemann (1990)*	
reaction time	0.201	interval		4.09	4.20	4.36	4.65		4.81	4.82	4.94	5.13	5.44	6.44			12.65	14.28	15.51
		velocity	6.99	8.56	8.33	8.03	7.53		7.28	7.26	7.09	6.82	6.43	6.21	7.23		8.30	7.35	6.77
H1 lead leg	R	strides	23	15	15	15	17		17	17	17	17	17	21.2	191.2				

Semi-Final 2

date 26-Sep-88

Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Fiedler, Ellen (GDR) (1958)		time	6.41	10.47	14.65	19.01	23.54		28.18	32.99	38.07	43.12	48.36		54.28	4 / 1			
reaction time	0.227	interval		4.06	4.18	4.36	4.53		4.64	4.81	5.08	5.05	5.24	5.92			12.60	13.98	15.37
		velocity	7.02	8.62	8.37	8.03	7.73		7.54	7.28	6.89	6.93	6.68	6.76	7.37		8.33	7.51	6.83
H1 lead leg		strides	23	15	15	15	15		15	15	16	16	16	19.4	180.4				
Kurochkina, Tatyana (URS) (		time	6.61	10.75	15.04	19.37	23.90		28.46	33.23	38.23	43.36	48.68		54.46	3 / 2			
reaction time	0.261	interval		4.14	4.29	4.33	4.53		4.56	4.77	5.00	5.13	5.32	5.78	PB		12.76	13.86	15.45
		velocity	6.81	8.45	8.16	8.08	7.73		7.68	7.34	7.00	6.82	6.58	6.92	7.34		8.23	7.58	6.80
H1 lead leg		strides	23	15	15	15	15		15	15	16	16	17	19.5	181.5				
Abt, Gudrun (FRG) (1962)		time	6.51	10.67	14.94	19.30	23.76		28.45	33.27	38.30	43.40	48.70		54.52	5 / 3			
reaction time	0.346	interval		4.16	4.27	4.36	4.46		4.69	4.82	5.03	5.10	5.30	5.82	PB		12.79	13.97	15.43
		velocity	6.91	8.41	8.20	8.03	7.85		7.46	7.26	6.96	6.86	6.60	6.87	7.34		8.21	7.52	6.80
H1 lead leg		strides	23	15	15	15	15		15	15	16	16	16	19.2	180.2				
Busch, Sabine (GDR) (1962)		time	6.63	10.53	15.15	19.54	24.11		28.77	33.57	38.48	43.60	48.83		54.71	7 / 4			
reaction time	0.230	interval		3.90	4.62	4.39	4.57		4.66	4.80	4.91	5.12	5.23	5.88			12.91	14.03	15.26
		velocity	6.79	8.97	7.58	7.97	7.66		7.51	7.29	7.13	6.84	6.69	6.80	7.31		8.13	7.48	6.88
H1 lead leg		strides	23	15	15	15	15		15	15	15	16	16	19	179				
Pérez, Cristina (ESP) (1965)		time	6.51	10.72	15.07	19.52	24.12		28.89	33.81	38.80	43.97	49.29		55.23	6 / 5			
reaction time	0.258	interval		4.21	4.35	4.45	4.60		4.77	4.92	4.99	5.17	5.32	5.94	NR		13.01	14.29	15.48
		velocity	6.91	8.31	8.05	7.87	7.61		7.34	7.11	7.01	6.77	6.58	6.73	7.24		8.07	7.35	6.78
H1 lead leg		strides	23	16	16	16	16		16	17	17	17	17	20.3	191.3				
McLaughlin, Elaine (GBR) (1		time	6.77	11.13	15.59	20.14	24.78		29.66	34.65	39.69	44.82	50.01		55.91	2 / 6			
reaction time	0.168	interval		4.36	4.46	4.55	4.64		4.88	4.99	5.04	5.13	5.19	5.90			13.37	14.51	15.36
		velocity	6.65	8.03	7.85	7.69	7.54		7.17	7.01	6.94	6.82	6.74	6.78	7.15		7.85	7.24	6.84
H1 lead leg		strides	25	16	16	16	16		16	16	17	17	17	19.5	191.5				
Williams, Schowonda (USA)		time	6.44	10.64	14.95	19.40	24.09		28.90	33.74	38.80	44.14	49.90		56.71	8 / 7			
reaction time	0.157	interval		4.20	4.31	4.45	4.69		4.81	4.84	5.06	5.34	5.76	6.81			12.96	14.34	16.16
		velocity	6.99	8.33	8.12	7.87	7.46		7.28	7.23	6.92	6.55	6.08	5.87	7.05		8.10	7.32	6.50
H1 lead leg		strides	24	16	16	16	17		17	17	18	18	18	22.9	199.9				
Beaugeant, Chantal (FRA) (		time	6.68	10.95	15.35	19.90	24.54		29.46	34.61	39.87	45.24	50.80		56.94	1 / 8			
reaction time	0.215	interval		4.27	4.40	4.55	4.64		4.92	5.15	5.26	5.37	5.56	6.14			13.22	14.71	16.19
		velocity	6.74	8.20	7.95	7.69	7.54		7.11	6.80	6.65	6.52	6.29	6.51	7.02		7.94	7.14	6.49

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

H1 lead leg		strides	22	15	15	15	15	16	16	16	17	17	20	184				

Semi-Final 1

date 26-Sep-88

Brüggemann (1990) - scientific research project at the games of the XXXIV Olympiad, Seoul 1988

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Flintoff-King, Debbie (AUS)		time	6.58	10.76	15.05	19.39	23.90		28.45	33.27	38.17	43.13	48.42		54.00	4 / 1			
reaction time	0.268	interval		4.18	4.29	4.34	4.51		4.55	4.82	4.90	4.96	5.29	5.58	OR		12.81	13.88	15.15
		velocity	6.84	8.37	8.16	8.06	7.76		7.69	7.26	7.14	7.06	6.62	7.17	7.41		8.20	7.56	6.93
H1 lead leg		strides	23	15	15	15	15		15	16	16	16	16	19.7	181.7				
Ledovskaya, Tatyana (URS) (		time	6.42	10.45	14.58	18.79	23.14		27.68	32.62	37.70	42.93	48.17		54.01	2 / 2			
reaction time	0.268	interval		4.03	4.13	4.21	4.35		4.54	4.94	5.08	5.23	5.24	5.84			12.37	13.83	15.55
		velocity	7.01	8.68	8.47	8.31	8.05		7.71	7.09	6.89	6.69	6.68	6.85	7.41		8.49	7.59	6.75
H1 lead leg		strides	24	15	15	16	16		17	17	17	17	17	20.5	191.5				
Sheffield, LaTanya (USA) (19		time	6.42	10.52	14.72	19.11	23.72		28.54	33.39	38.33	43.41	48.56		54.36	3 / 3			
reaction time	0.184	interval		4.10	4.20	4.39	4.61		4.82	4.85	4.94	5.08	5.15	5.80	PB		12.69	14.28	15.17
		velocity	7.01	8.54	8.33	7.97	7.59		7.26	7.22	7.09	6.89	6.80	6.90	7.36		8.27	7.35	6.92
H1 lead leg		strides	23	15	15	15	15		16	17	17	17	17	20.8	187.8				
Gunnell, Sally (GBR) (1966)		time	6.87	11.12	15.56	20.07	24.70		29.23	33.86	38.57	43.58	48.72		54.48	6 / 4			
reaction time	0.219	interval		4.25	4.44	4.51	4.63		4.53	4.63	4.71	5.01	5.14	5.76			13.20	13.79	14.86
		velocity	6.55	8.24	7.88	7.76	7.56		7.73	7.56	7.43	6.99	6.81	6.94	7.34		7.95	7.61	7.07
H1 lead leg		strides	23	15	15	15	15		16	15	15	15	17	20.8	181.8				
Protti, Anita (SUI) (1964)		time	6.95	11.22	15.58	20.13	24.76		29.30	33.98	38.74	43.67	48.74		54.56	5 / 5			
reaction time		interval		4.27	4.36	4.55	4.63		4.54	4.68	4.76	4.93	5.07	5.82	PB		13.18	13.85	14.76
		velocity	6.47	8.20	8.03	7.69	7.56		7.71	7.48	7.35	7.10	6.90	6.87	7.33		7.97	7.58	7.11
H1 lead leg		strides	26	17	17	17	17		17	17	17	18	18	21.2	202.2				
Losch, Susanne (GDR) (1966		time	6.53	10.55	14.83	19.36	24.05		28.85	33.78	38.74	43.94	49.41		55.56	8 / 6			
reaction time	0.213	interval		4.02	4.28	4.53	4.69		4.80	4.93	4.96	5.20	5.47	6.15			12.83	14.42	15.63
		velocity	6.89	8.71	8.18	7.73	7.46		7.29	7.10	7.06	6.73	6.40	6.50	7.20		8.18	7.28	6.72
H1 lead leg		strides	23	15	15	15	15		15	16	16	17	17	20	184				
Blaszak, Genowefa (POL) (19		time	6.67	10.86	15.16	19.56	24.37		29.25	34.24	39.34	44.60	50.13		56.76	7 / 7			
reaction time		interval		4.19	4.30	4.40	4.81		4.88	4.99	5.10	5.26	5.53	6.63			12.89	14.68	15.89
		velocity	6.75	8.35	8.14	7.95	7.28		7.17	7.01	6.86	6.65	6.33	6.03	7.05		8.15	7.15	6.61
H1 lead leg		strides	23	16	15	15	16		16	17	16	17	17	21.1	189.1				
Tromp, Gretha (NED) (1964)		time	6.54	10.68	14.98	19.41	24.07		28.99	34.13	39.39	45.03	50.97		57.57	1 / 8			
reaction time	0.241	interval		4.14	4.30	4.43	4.66		4.92	5.14	5.26	5.64	5.94	6.60			12.87	14.72	16.84
		velocity	6.88	8.45	8.14	7.90	7.51		7.11	6.81	6.65	6.21	5.89	6.06	6.95		8.16	7.13	6.24
H1 lead leg		strides	23	15	16	15	16		16	15	17	18	18	21.3	190.3				

1987 ??? (???)

FINAL

date ???

Cui (2008) - research on the rhythm characteristics of outstanding female 400m hurdlers in China

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Chen Juying (CHN) (1963)		time	6.80	11.25	15.61	20.12	24.72		29.50	34.53	39.80	45.15	50.48		56.78	???			
reaction time		interval		4.45	4.36	4.51	4.60		4.78	5.03	5.27	5.35	5.33	6.30			13.32	14.41	15.95
		velocity	6.62	7.87	8.03	7.76	7.61		7.32	6.96	6.64	6.54	6.57	6.35	7.04		7.88	7.29	6.58
H1 lead leg		strides	23	15	15	15	15		15	17	17	17	17	22	188				

1987 IAAF World Championships (Rome, ITA)

FINAL

date 03-Sep-87

Sušanka (1990) - time analyis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Busch, Sabine (GDR) (1962)		time	6.60	10.81	15.19	19.65	24.13		28.81	33.59	38.46	43.38	48.31		53.62	3 / 1			
reaction time		interval		4.21	4.38	4.46	4.48		4.68	4.78	4.87	4.92	4.93	5.31	CR		13.05	13.94	14.72
		velocity	6.82	8.31	7.99	7.85	7.81		7.48	7.32	7.19	7.11	7.10	7.53	7.46		8.05	7.53	7.13
H1 lead leg	L	strides	23	15	15	15	15		15	15	15	16	16	18.1	178.1				
Flintoff-King, Debbie (AUS)		time	6.61	10.77	15.09	19.45	23.94		28.64	33.42	38.44	43.43	48.50		54.19	8 / 2			
reaction time		interval		4.16	4.32	4.36	4.49		4.70	4.78	5.02	4.99	5.07	5.69			12.84	13.97	15.08
		velocity	6.81	8.41	8.10	8.03	7.80		7.45	7.32	6.97	7.01	6.90	7.03			8.18	7.52	6.96
H1 lead leg	L	strides	23	15	15	15	15		16	16	16	16	16	19.9	182.9				
Ullrich, Cornelia (GDR) (1963		time	6.60	10.77	15.13	19.62	24.17		28.94	33.82	38.75	43.67	48.67		54.31	4 / 3			
reaction time		interval		4.17	4.36	4.49	4.55		4.77	4.88	4.93	4.92	5.00	5.64			13.02	14.20	14.85
		velocity	6.82	8.39	8.03	7.80	7.69		7.34	7.17	7.10	7.11	7.00	7.09			8.06	7.39	7.07
H1 lead leg	R	strides	25	15	16	16	17		17	17	17	17	17	20.2	194.2				
Farmer-Patrick, Sandra (USA) (1962)		no information available													54.38	6 / 4			
Helander-Kuusisto, Tuija (FIN) (1961)		no information available													54.62	5 / 5			
Ambraziene, Anna (URS) (1955)		no information available													55.68	1 / 6			
Williams, Schowonda (USA) (1966)		no information available													55.86	2 / 7			
Brown-King, Judi (USA) (1961)		no information available													56.10	7 / 8			

Semi-Final 2

date 01-Sep-87

Sušanka (1990) - time analyis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ullrich, Cornelia (GDR) (1963		time	6.67	10.77	15.03	19.24	23.68		28.32	33.18	38.18	43.38	48.64		54.72	3 / 1			

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

reaction time		interval		4.10	4.26	4.21	4.44	4.64	4.86	5.00	5.20	5.26	6.08			12.57	13.94	15.46
		velocity	6.75	8.54	8.22	8.31	7.88	7.54	7.20	7.00	6.73	6.65	6.58			8.35	7.53	6.79
H1 lead leg	R	strides	23	15	15	15	15	15	17	17	17	17	21.1	187.1				
Flintoff-King, Debbie (AUS)		time	6.60	10.76	14.97	19.24	23.69	28.42	33.28	38.34	43.62	49.04		55.08	8 / 2			
reaction time		interval		4.16	4.21	4.27	4.45	4.73	4.86	5.06	5.28	5.42	6.04			12.64	14.04	15.76
		velocity	6.82	8.41	8.31	8.20	7.87	7.40	7.20	6.92	6.63	6.46	6.62			8.31	7.48	6.66
H1 lead leg	L	strides	23	15	15	15	15	16	16	16	17	17	19.4	184.4				

Semi-Final 1

date 01-Sep-87

Sušanka (1990) - time analyis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Busch, Sabine (GDR) (1962)	time	6.80	11.04	15.37	19.80	24.29		28.93	33.70	38.66	43.67	48.75		54.41	6 / 1			
reaction time	interval		4.24	4.33	4.43	4.49		4.64	4.77	4.96	5.01	5.08	5.66			13.00	13.90	15.05
	velocity	6.62	8.25	8.08	7.90	7.80		7.54	7.34	7.06	6.99	6.89	7.07	7.35		8.08	7.55	6.98
H1 lead leg L	strides	23	15	15	15	15		15	15	15	16	16	18.5	178.5				

Heat 5

date 31-Aug-87

Sušanka (1990) - time analyis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Ullrich, Cornelia (GDR) (196	time	6.75	10.99	15.44	20.04	24.68		29.54	34.57	39.76	45.12	50.46		56.75	/ 1			
reaction time	interval		4.24	4.45	4.60	4.64		4.86	5.03	5.19	5.36	5.34	6.29			13.29	14.53	15.89
	velocity	6.67	8.25	7.87	7.61	7.54		7.20	6.96	6.74	6.53	6.55	6.36			7.90	7.23	6.61
H1 lead leg	strides	23	15	15	15	15		17	17	17	17	17	21	189				

Heat 2

date 31-Aug-87

Sušanka (1990) - time analyis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Flintoff-King, Debbie (AUS)	time	6.55	10.68	14.96	19.32	23.81		28.74	33.83	39.10	44.46	49.92		56.31	/ 2			
reaction time	interval		4.13	4.28	4.36	4.49		4.93	5.09	5.27	5.36	5.46	6.39			12.77	14.51	16.09
	velocity	6.87	8.47	8.18	8.03	7.80		7.10	6.88	6.64	6.53	6.41	6.26			8.22	7.24	6.53
H1 lead leg	strides	23	15	15	15	15		16	17	17	17	18	20	188				

Heat 1

date 31-Aug-87

Sušanka (1990) - time analyis of the 400m hurdles - Rome 1987 Scientific Report (2nd ed)

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Busch, Sabine (GDR) (1962)	time	6.84	11.04	15.39	19.85	24.45		29.14	34.05	39.07	44.26	49.46		55.51	/ 1			
reaction time	interval		4.20	4.35	4.46	4.60		4.69	4.91	5.02	5.19	5.20	6.05			13.01	14.20	15.41
	velocity	6.58	8.33	8.05	7.85	7.61		7.46	7.13	6.97	6.74	6.73	6.61	7.21		8.07	7.39	6.81
H1 lead leg	strides	23	15	15	15	15		15	15	15	16	16	18.8	178.8				

1987 East German National Championship (Potsdam, GDR)

FINAL

date 21-Aug-87

König (1989) - on the present state of development, and questions of future development, in the 400m hurdles for women

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Busch, Sabine (GDR) (1962)	time	6.57	10.66	14.94	19.28	23.75		28.33	32.94	37.68	42.65	47.67		53.24	/ 1			
reaction time	interval		4.09	4.28	4.34	4.47		4.58	4.61	4.74	4.97	5.02	5.57	NR		12.71	13.66	14.73
	velocity	6.85	8.56	8.18	8.06	7.83		7.64	7.59	7.38	7.04	6.97	7.18	7.51		8.26	7.69	7.13
H1 lead leg	strides																	

1987 French National Championship (Annecy, FRA)

FINAL

date 09-Aug-87

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Huart, Hélène (FRA) (1965)	time	6.54	10.86	15.28	19.85	24.45		29.16	34.04	39.09	44.25	49.52		55.55	/ 1			
reaction time	interval		4.32	4.42	4.57	4.60		4.71	4.88	5.05	5.16	5.27	6.03	PB		13.31	14.19	15.48
	velocity	6.88	8.10	7.92	7.66	7.61		7.43	7.17	6.93	6.78	6.64	6.63	7.20		7.89	7.40	6.78
H1 lead leg	strides	22	15	15	15	15		15	15	16	16	17		161				
Moelo, Annie (FRA) (1962)	time	6.85	11.15	15.65	20.40	25.10		30.00	35.05	40.05	45.20	50.60		57.33	/ 2			
reaction time	interval		4.30	4.50	4.75	4.70		4.90	5.05	5.00	5.15	5.40	6.73			13.55	14.65	15.55
	velocity	6.57	8.14	7.78	7.37	7.45		7.14	6.93	7.00	6.80	6.48	5.94	6.98		7.75	7.17	6.75
H1 lead leg	strides																	
Lebreton, Catherine (FRA) (	time	7.10	12.00	16.70	21.55	26.60		31.70	36.85	42.00	47.30	52.60		58.68	/ 4			
reaction time	interval		4.90	4.70	4.85	5.05		5.10	5.15	5.15	5.30	5.30	6.08			14.45	15.30	15.75
	velocity	6.34	7.14	7.45	7.22	6.93		6.86	6.80	6.80	6.60	6.60	6.58	6.82		7.27	6.86	6.67
H1 lead leg	strides																	

1987 TAC National Championships (San Jose, CA)

FINAL

date 26-Jun-87

Mann (1987) - the elite athlete program biomechanical analysis of the long hurdles: tac championship meet

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Brown, Edna (USA) (1960)	time	6.70	10.80	15.36	20.00	24.74		29.40	34.34	39.46	44.86	50.74		55.98	???			
reaction time	interval		4.10	4.56	4.64	4.74		4.66	4.94	5.12	5.40	5.88	5.24			13.30	14.34	16.40
	velocity	6.72	8.54	7.68	7.54	7.38		7.51	7.09	6.84	6.48	5.95	7.63	7.15		7.89	7.32	6.40
H1 lead leg	strides																	
Brown, Tonya (USA) (1960)	time	6.36	11.12	15.66	19.96	24.78		29.54	34.70	39.98	45.44	51.14		57.44	???			
reaction time	interval		4.76	4.54	4.30	4.82		4.76	5.16	5.28	5.46	5.70	6.30			13.60	14.74	16.44
	velocity	7.08	7.35	7.71	8.14	7.26		7.35	6.78	6.63	6.41	6.14	6.35	6.96		7.72	7.12	6.39
H1 lead leg	strides																	

1987 Meeting International de Dijon (Dijon, FRA)

FINAL

date 13-Jun-87

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Debois, Nadine (FRA) (1961)	time	7.2	11.7	16.3	21.0	25.8		30.7	35.6	40.5	45.4	50.7		56.54	/ 2			
reaction time	interval		4.5	4.6	4.7	4.8		4.9	4.9	4.9	4.9	5.3	5.84			13.80	14.60	15.10
	velocity	6.25	7.78	7.61	7.45	7.29		7.14	7.14	7.14	7.14	6.60	6.85	7.07		7.61	7.19	6.95
H1 lead leg	strides																	

1986 IX USSR Spartakiade (Tashkent, URS)

FINAL date 17-Sep-86

Stepanova (1997) - my experiences in the 400m hurdles

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Stepanova, Marina (URS) (19	time	6.55	10.65	14.80	19.05	23.38		27.81	32.49	37.34	42.15	47.19		52.94	/ 1			
reaction time	interval		4.10	4.15	4.25	4.33		4.43	4.68	4.85	4.81	5.04	5.75	**WR**		12.50	13.44	14.70
	velocity	6.87	8.54	8.43	8.24	8.08		7.90	7.48	7.22	7.28	6.94	6.96	7.56		8.40	7.81	7.14
H1 lead leg	strides	22	15	15	15	15		15	15	17	17	17		163				

1986 European Championships (Stuttgart, FRG)

Behm (1995) - la tactique du 400 haies

FINAL date 30-Aug-86

Breizer (1990) - the preparation of women for the 400m hurdles

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Stepanova, Marina (URS) (19	time	6.64	10.78	15.01	19.38	23.84		28.39	33.06	37.88	42.75	47.73		53.32	/ 1		*Breizer (1990)*	
reaction time	interval		4.14	4.23	4.37	4.46		4.55	4.67	4.82	4.87	4.98	5.59	**WR**		12.74	13.68	14.67
	velocity	6.78	8.45	8.27	8.01	7.85		7.69	7.49	7.26	7.19	7.03	7.16	7.50		8.24	7.68	7.16
H1 lead leg	strides	23	15	15	15	15		15	15	17	17	17	21	185				
Busch, Sabine (GDR) (1962)	time	6.56	10.72	15.06	19.42	23.90		28.47	33.11	37.93	42.76	47.76		53.60	/ 2		*Breizer (1990)*	
reaction time	interval		4.16	4.34	4.36	4.48		4.57	4.64	4.82	4.83	5.00	5.84			12.86	13.69	14.65
	velocity	6.86	8.41	8.06	8.03	7.81		7.66	7.54	7.26	7.25	7.00	6.85	7.46		8.16	7.67	7.17
H1 lead leg	strides	22	15	15	15	15		15	15	15	15	15	19	176				
Feuerbach, Cornelia (GDR) (	time	6.4	10.4	14.6	18.8	23.3		28.0	32.7	37.7	42.8	48.0		54.13	/ 3		*Behm (1995)*	
reaction time	interval		4.0	4.2	4.2	4.5		4.7	4.7	5.0	5.1	5.2	6.13	**PB**		12.40	13.90	15.30
	velocity	7.03	8.75	8.33	8.33	7.78		7.45	7.45	7.00	6.86	6.73	6.53	7.39		8.47	7.55	6.86
H1 lead leg	strides	23	15	15	15	15		15	15	15	17	17		162				
Skoglund, Ann-Louise (SWE) (1962)	no information available													54.15	/ 4			
Blaszak, Genowefa (POL) (1957)	no information available													54.74	/ 5			
Fieldler, Ellen (GDR) (1958)	no information available													54.90	/ 6			

1986 French National Championships (Aix les Bains, FRA)

FINAL date 10-Aug-86

Veney - split times from PJ

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Dille, Monique (FRA)	time	6.9	11.3	16.1	20.9	25.9		30.9	36.2	41.6	47.2	52.9		59.50	/ 6			
reaction time	interval		4.4	4.8	4.8	5.0		5.0	5.3	5.4	5.6	5.7	6.60			14.00	15.30	16.70
	velocity	6.52	7.95	7.29	7.29	7.00		7.00	6.60	6.48	6.25	6.14	6.06	6.72		7.50	6.86	6.29
H1 lead leg	strides																	

1986 IAAF World Junor Championships (Athens, GRE)

FINAL date 18-Jul-86

Miskos (1986) - IAAF biomechanical research - Athens 1986 - hurdle races

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bartl, Claudia (GDR) (1968)	time	6.49	10.77	15.25	19.73	24.49		29.51	34.57	40.05	45.30	50.69		56.76	/ 1			
reaction time	interval		4.28	4.48	4.48	4.76		5.02	5.06	5.48	5.25	5.39	6.07	**CR**		13.24	14.84	16.12
	velocity	6.93	8.18	7.81	7.81	7.35		6.97	6.92	6.39	6.67	6.49	6.59	7.05		7.93	7.08	6.51
H1 lead leg	strides	23	15	15	15	16		17	17	17	17	17	20	189				
Roberts, Kellie (USA) (1969)	time	6.73	11.11	15.51	20.08	24.87		29.87	34.98	40.19	45.39	50.75		56.80	/ 2			
reaction time	interval		4.38	4.40	4.57	4.79		5.00	5.11	5.21	5.20	5.36	6.05			13.35	14.90	15.77
	velocity	6.69	7.99	7.95	7.66	7.31		7.00	6.85	6.72	6.73	6.53	6.61	7.04		7.87	7.05	6.66
H1 lead leg	strides	24	16	16	16	18		17	17	17	17	17	21	196				
Lukashevich, Svetlana (URS)	time	6.75	11.13	15.72	20.29	24.98		29.91	35.58	40.93	46.47	51.95		57.92	/ 3			
reaction time	interval		4.38	4.59	4.57	4.69		4.93	5.67	5.35	5.54	5.48	5.97			13.54	15.29	16.37
	velocity	6.67	7.99	7.63	7.66	7.46		7.10	6.17	6.54	6.32	6.39	6.70	6.91		7.75	6.87	6.41
H1 lead leg	strides	23	15	15	15	15		15	15	17	17	17	21	185				
McDermid, Jill (CAN)	no information available													58.00	/ 4			
Draghia, Ana Maria (ROM) (1968)	no information available													58.74	/ 5			
Moore, Shawn (USA)	no information available													58.80	/ 6			
Georgieva, Zdravka (BUL)	no information available													60.32	/ 7			
Matyakina, Marina (URS)	no information available													61.14	/ 8			

1985 European Junior Championships (Cottbus, GDR)

FINAL date 25-Aug-85

Warburton (1985) - 1985 european junior championships - hurdles

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Bartl, Claudia (GDR) (1968)	time	6.57		14.88	19.39	24.30		29.11	33.98	39.11	44.48	49.80		56.22	/ 1			
reaction time	interval			8.31	4.51	4.91		4.81	4.87	5.13	5.37	5.32	6.42			12.82	14.59	15.82
	velocity	6.85		8.42	7.76	7.13		7.28	7.19	6.82	6.52	6.58	6.23	7.11		8.19	7.20	6.64
H1 lead leg	strides																	
Petkova, Zhivka (BUL) (1967)	time		10.73	15.24	19.85	24.72		29.60	34.49	39.51	44.62	49.93		56.50	/ 2			
reaction time	interval			4.51	4.61	4.87		4.88	4.89	5.02	5.11	5.31	6.57	**PB**			14.64	15.44

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

		velocity		7.46	7.76	7.59	7.19		7.17	7.16	6.97	6.85	6.59	6.09	7.08			7.17	6.80
H1 lead leg		strides																	

1984 Women's Friendship Games (Prague, TCH)

FINAL

date 17-Aug-84

Stepanova (1997) - my experiences in the 400m hurdles

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Stepanova, Marina (URS) (19		time	6.65	10.81	15.09	19.45	23.93		28.49	33.13		42.97	48.01		53.67	1 / 1			
reaction time		interval		4.16	4.28	4.36	4.48		4.56	4.64		9.84	5.04	5.66	PB		12.80	13.68	14.88
		velocity	6.77	8.41	8.18	8.03	7.81		7.68	7.54		7.11	6.94	7.07	7.45		8.20	7.68	7.06
H1 lead leg		strides	22	15	15	15	15		15	15	17	17	17		163				

1984 Olympic Games (Los Angeles, CA)

FINAL

date 08-Aug-84

Behm (1995) - la tactique du 400 haies

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
El Moutawakel, Nawal (MAR)		time	6.4	10.6	14.8	19.1	23.7		28.3	33.2	38.2	43.4	48.6		54.61	3 / 1			
reaction time	0.176	interval		4.2	4.2	4.3	4.6		4.6	4.9	5.0	5.2	5.2	6.01	OR PB		12.70	14.10	15.40
		velocity	7.03	8.33	8.33	8.14	7.61		7.61	7.14	7.00	6.73	6.73	6.66	7.32		8.27	7.45	6.82
H1 lead leg		strides		17	17	17	17		17	17	18	18	19	22.5	179.5				
Brown-King, Judi (USA) (19		time	6.7	11.2	15.7	20.4	25.0		29.6	34.5	39.5	44.6	49.7		55.20	8 / 2			
reaction time	0.188	interval		4.5	4.5	4.7	4.6		4.6	4.9	5.0	5.1	5.1	5.50			13.70	14.10	15.20
		velocity	6.72	7.78	7.78	7.45	7.61		7.61	7.14	7.00	6.86	6.86	7.27	7.25		7.66	7.45	6.91
H1 lead leg		strides	21	14	14	14	14		14	14	15	15	15	18	168				
Cojocaru, Christina (ROU) (		time	6.3	10.6	15.0	19.4	24.1		28.8	33.5	38.7	44.0	49.3		55.41	2 / 3			
reaction time	0.237	interval		4.3	4.4	4.4	4.7		4.7	4.7	5.2	5.3	5.3	6.11			13.10	14.10	15.80
		velocity	7.14	8.14	7.95	7.95	7.45		7.45	7.45	6.73	6.60	6.60	6.55	7.22		8.02	7.45	6.65
H1 lead leg		strides	22	15	15	15	15		15	15	16	16	17	21	182				

Usha, P.T. (IND) (1964)	0.229	no information available	55.42	5 / 4	
Skoglund, Ann-Louise (SWE	0.227	no information available	55.43	1 / 5	
Flintoff-King, Debbie (AUS)	0.262	no information available	56.21	6 / 6	
Helander, Tuija (FIN) (1961)	0.183	no information available	56.55	7 / 7	
Farmer-Patrick, Sandra (JAM	0.361	no information available	57.15	4 / 8	

Semi-Final 2

date 06-Aug-84

Arnold (1984) - 1984 olympic games - hurdles

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Usha, P.T. (IND) (1964)		time	6.6	11.5	15.9	20.5	25.1	27.1	29.8	34.5	39.4	44.4	49.6		55.54	2 / 1			
reaction time		interval		4.9	4.4	4.6	4.6		4.7	4.7	4.9	5.0	5.2	5.94	PB		13.90	14.00	15.10
		velocity	6.82	7.14	7.95	7.61	7.61	7.38	7.45	7.45	7.14	7.00	6.73	6.73	7.20		7.55	7.50	6.95
H1 lead leg	L	strides		17	17	17					17	17	17	20.7	122.7				
Taylor, Gladys (GBR) (1953)		time	6.5	11.1	15.1	19.2	23.6	25.6	28.4	33.2	38.5	44.2	50.2		56.72	1 / 5			
reaction time		interval		4.6	4.0	4.1	4.4		4.8	4.8	5.3	5.7	6.0	6.52	PB		12.70	14.00	17.00
		velocity	6.92	7.61	8.75	8.54	7.95	7.81	7.29	7.29	6.60	6.14	5.83	6.13	7.05		8.27	7.50	6.18
H1 lead leg	L	strides		15	15	15	15				17	19	19	21.5	136.5				

Semi-Final 1

date 06-Aug-84

Arnold (1984) - 1984 olympic games - hurdles

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Morley, Sue (GBR) (1957)		time	6.5	10.6	15.4	19.5	24.0	26.0	28.8	33.8	39.1	44.5	50.3		56.67	8 / 7			
reaction time		interval		4.1	4.8	4.1	4.5		4.8	5.0	5.3	5.4	5.8	6.37			13.00	14.30	16.50
		velocity	6.92	8.54	7.29	8.54	7.78	7.69	7.29	7.00	6.60	6.48	6.03	6.28	7.06		8.08	7.34	6.36
H1 lead leg	L	strides		15	15	15	15		16	16	17				109				

1984 Olympischen Tag (Potsdam, GDR)

FINAL

date 21-Jul-84

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Khromova, Margareta (URS)		time	6.74				24.13						48.56		54.36	/ 1			
reaction time		interval					17.39						24.43	5.80					
		velocity	6.68				8.05						7.16	6.90	7.36				
H1 lead leg		strides																	

1984 (Dresden, GDR)

FINAL

date 19-May-84

Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Uibel, Birgit (GDR) (1961)		time	6.53				23.54						48.64		54.68	/ 1			
reaction time		interval					17.01						25.10	6.04	PB				
		velocity	6.89				8.23						6.97	6.62	7.32				
H1 lead leg		strides																	

1983 European Cup (London, GBR)

FINAL

date 20-Aug-83

Ewen (1985) - hurdles

			H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Fiedler, Ellen (GDR) (1958)		time	6.4	10.6	14.9	19.3	23.7			32.9	37.7	42.8	48.0		54.20	4 / 1			
reaction time		interval		4.20	4.30	4.40	4.40			9.20	4.80	5.10	5.20	6.20	PB		12.90	13.60	15.10
		velocity	7.03	8.33	8.14	7.95	7.95			7.61	7.29	6.86	6.73	6.45	7.38		8.14	7.72	6.95
H1 lead leg	R	strides	23	15	15	15	15		15	15	16	16	16	20	181				

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Ambraziene, Anna (URS) (19	time			15.6	19.9	24.4		28.8	33.7	38.7	43.9	48.7		54.74	2 / 2			
reaction time	interval				4.30	4.50		4.40	4.90	5.00	5.20	4.80	6.04				13.80	15.00
	velocity			7.37	8.14	7.78		7.95	7.14	7.00	6.73	7.29	6.62	7.31			7.61	7.00
H1 lead leg R	strides	24	15	15	15	16		16	17	17	17	17		169				

1983 IAAF World Championships (Helsinki, FIN)

FINAL

date 10-Aug-83

McFarlane (1988) - The Science of Hurdling

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Fesenko-Grun, Yekaterina (U	time	6.74	11.30	15.48	19.90	24.32		28.99	33.68	38.31	43.21	48.32		54.14	5 / 1			
reaction time	interval		4.56	4.18	4.42	4.42		4.67	4.69	4.63	4.90	5.11	5.82	CR / PB		13.16	13.78	14.64
	velocity	6.68	7.68	8.37	7.92	7.92		7.49	7.46	7.56	7.14	6.85	6.87	7.39		7.98	7.62	7.17
H1 lead leg L	strides	23	17	17	17	17		17	17	17	17	17	21.5	197.5				
Ambraziene, Anna (URS) (19	time	6.69	11.05	15.31	19.57	24.08		28.65	33.31	38.15	43.13	48.16		54.15	3 / 2			
reaction time	interval		4.36	4.26	4.26	4.51		4.57	4.66	4.84	4.98	5.03	5.99			12.88	13.74	14.85
	velocity	6.73	8.03	8.22	8.22	7.76		7.66	7.51	7.23	7.03	6.96	6.68	7.39		8.15	7.64	7.07
H1 lead leg R	strides	24	16	16	16	16		16	16	17	17	17	20	191				
Fiedler, Ellen (GDR) (1958)	time	6.44	10.52	14.65	18.87	23.34		28.04	32.64	37.77	42.90	48.26		54.55	1 / 3			
reaction time	interval		4.08	4.13	4.22	4.47		4.70	4.60	5.13	5.13	5.36	6.29			12.43	13.77	15.62
	velocity	6.99	8.58	8.47	8.29	7.83		7.45	7.61	6.82	6.82	6.53	6.36	7.33		8.45	7.63	6.72
H1 lead leg R	strides	23	15	15	15	15		15	15	16	16	17	21	183				
Pfaff, Petra (GDR) (1960)	no information available													54.64	7 / 4			
Krug, Petra (GDR) (1963)	no information available													54.76	8 /5			
Skoglund, Ann-Louise (SWE) (1962)	no information available													54.80	2 / 6			
Morley, Susan (GBR) (1957)	no information available													56.04	6 / 7			
Cojocaru-Matei, Cristieana (ROU) (1962)	no information available													56.26	4 / 8			

Knoke (1984) - the hurdles

Semi-Final 1

date 09-Aug-83

Lyle - miscellaneous coaching notes

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Fesenko-Grun, Yekaterina (U	time	6.70	10.90	15.40	19.98	24.57		29.36	34.21	39.17	44.38	49.48		55.99	6 / 2			*Lyle*
reaction time	interval		4.20	4.50	4.58	4.59		4.79	4.85	4.96	5.21	5.10	6.51			13.28	14.23	15.27
	velocity	6.72	8.33	7.78	7.64	7.63		7.31	7.22	7.06	6.72	6.86	6.14	7.14		7.91	7.38	6.88
H1 lead leg L	strides	24	17	17	17	17		17	17	17	17	17	21	198				
Flintoff-King, Debbie (AUS)	time	6.60	11.04	15.54	20.26	25.09		29.55	35.02	40.04	45.24	50.53		56.63	3 / 5			*Knoke (1984)*
reaction time	interval		4.44	4.50	4.72	4.83		4.46	5.47	5.02	5.20	5.29	6.10			13.66	14.76	15.51
	velocity	6.82	7.88	7.78	7.42	7.25		7.85	6.40	6.97	6.73	6.62	6.56	7.06		7.69	7.11	6.77
H1 lead leg L	strides	23	15	15				16	16	16	16	17	20	154				

Heat 4

date 08-Aug-83

Knoke (1984) - the hurdles

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Flintoff-King, Debbie (AUS)	time	6.81	11.22	15.80	20.54	25.42		30.09	35.02	40.04	45.23	50.59		56.47	/ 1			
reaction time	interval		4.41	4.58	4.74	4.88		4.67	4.93	5.02	5.19	5.36	5.88	PB		13.73	14.48	15.57
	velocity	6.61	7.94	7.64	7.38	7.17		7.49	7.10	6.97	6.74	6.53	6.80	7.08		7.65	7.25	6.74
H1 lead leg	strides																	

1983 VIII USSR Spartakiade (Moscow, URS)

FINAL

date 21-Jun-83

Breizer (1985) - on the track with ekaterina fesenko

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Fesenko-Grun, Yekaterina (U	time	7.10	11.64	16.06	20.46	25.34		30.12	34.84	39.70	44.74	49.62		55.01	/ 2			
reaction time	interval		4.54	4.42	4.40	4.88		4.78	4.72	4.86	5.04	4.88	5.39			13.36	14.38	14.78
	velocity	6.34	7.71	7.92	7.95	7.17		7.32	7.42	7.20	6.94	7.17	7.42	7.27		7.86	7.30	7.10
H1 lead leg	strides	24	17	17	17	17		17	17	17	17	17	20.5	197.5				

1982 European Championships (Athens, GRE)

FINAL

date 10-Sep-82

Behm (1995) - la tactique du 400 haies

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Skoglund, Ann-Louise (SWE	time	6.6	10.9	15.3	19.7	24.2		28.7	33.3	38.0	43.2	48.4		54.58	/ 1			
reaction time	interval		4.3	4.4	4.4	4.5		4.5	4.6	4.7	5.2	5.2	6.18	CR / PB		13.10	13.60	15.10
	velocity	6.82	8.14	7.95	7.95	7.78		7.78	7.61	7.45	6.73	6.73	6.47	7.33		8.02	7.72	6.95
H1 lead leg	strides	23	15	15	15	15		15	15	15	17	17		162				
Pfaff, Petra (GDR) (1960)	time	6.8	10.9	15.3	19.5	24.0		28.7	33.6	38.6	43.9	49.2		54.90	/ 2			
reaction time	interval		4.1	4.4	4.2	4.5		4.7	4.9	5.0	5.3	5.3	5.70	PB		12.70	14.10	15.60
	velocity	6.62	8.54	7.95	8.33	7.78		7.45	7.14	7.00	6.60	6.60	7.02	7.29		8.27	7.45	6.73
H1 lead leg	strides	23	15	15	15	15		15	15	15	16	16		160				
Réga, Chantal (FRA) (1955)	time	6.47	10.56	14.72	18.97	23.36		27.96	32.97	38.07	43.37	48.80		54.94	/ 3			
reaction time	interval		4.09	4.16	4.25	4.39		4.60	5.01	5.10	5.30	5.43	6.14	PB		12.50	14.00	15.83
	velocity	6.96	8.56	8.41	8.24	7.97		7.61	6.99	6.86	6.60	6.45	6.51	7.28		8.40	7.50	6.63
H1 lead leg	strides	23	15	15	15	15		15	16	16	17	17	20.7	184.7				
Kastezkaja, Anna (URS)	no information available													55.09	/ 4			
Filipshina Yelena (URS) (1962)	no information available													55.09	/ 5			
Uibel, Birgit (GDR) (1961)	no information available													55.70	/ 6			
Fesenko, Ekaterina (URS) (1958)	no information available													55.86	/ 7			

Blaszak, Genowefa (POL) (1957) no information available 56.89 / 8

Semi-Final 1

date 09-Sep-82 *(1982) - XIII championnats d'Europe d'Atlletisma, Athens 1982*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Réga, Chantal (FRA) (1955)	time	6.5		14.7		23.4			32.6		43.7			55.73	/ 1			
reaction time	interval			8.2		8.7			9.2		11.1							
	velocity	6.92		8.54		8.05			7.61		6.31			7.18				
H1 lead leg	strides																	

1980 IAAF World Championships (Sittard, NED)

A FINAL

date 16-Aug-80

	H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Broschat, Bärbel (GDR) (1957)	no information available											PB	54.55	7 / 1			
Neumann, Ellen (GDR) (1958)	no information available												54.56	6 / 2			
Pfaff, Petra (GDR) (1960)	no information available												55.84	8 / 3			
Appleby, Mary (IRL) (1957)	no information available												56.51	5 / 4			
Mahr, Esther (USA) (1961)	no information available												56.81	1 / 5			
Frederiksen, Hilde (NOR) (1960)	no information available												56.85	4 / 6			
Warden, Christine (GBR) (1950)	no information available											DQ	56.99	2 / ~~7~~			
Foreman, Lynette (AUS) (1957)	no information available												58.24	3 / ~~8~~ 7			

1980 East German Spitzenklasse (Jena, GDR)

FINAL

date 17-May-80 *Heß (1985) - entwicklungsaspekte die leichtathletischen sprint-/hürdendisziplinen im olympiazyklus 1981/84*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Roßley, Karin (GDR) (1957)	time	6.49				23.87						48.58		54.28	/ 1			
reaction time	interval					17.38						24.71	5.70	WR				
	velocity	6.93				8.06						7.08	7.02	7.37				
H1 lead leg	strides																	

1979 AAA Women's National Championships (London, GBR)

FINAL

date 28-Jul-79 *Warden (1989) - sprinting and hurdling*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Warden, Christine (GBR) (19	time	6.7	11.1	15.5	20.1	24.5	26.7	29.3	34.1	39.3	44.5	49.8		56.06	/ 1			
reaction time	interval		4.4	4.4	4.6	4.4		4.8	4.8	5.2	5.2	5.3	6.26	NR		13.40	14.00	15.70
	velocity	6.72	7.95	7.95	7.61	7.95	7.49	7.29	7.29	6.73	6.73	6.60	6.39	7.14		7.84	7.50	6.69
H1 lead leg	strides	23	16	16	16	16		16	17	17	17	17	22	193				

1979 VII USSR Spartakiade (Moscow, URS)

FINAL

date 27-Jul-79 *Stepanova (1996) - my school*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Stepanova, Marina (URS) (19	time	6.92	11.33	15.91	20.51	25.18		29.91	34.69	39.55	44.46	49.38		54.78	4 / 1			
reaction time	interval		4.41	4.58	4.60	4.67		4.73	4.78	4.86	4.91	4.92	5.40	WR		13.59	14.18	14.69
	velocity	6.50	7.94	7.64	7.61	7.49		7.40	7.32	7.20	7.13	7.11	7.41	7.30		7.73	7.40	7.15
H1 lead leg L	strides	23	17	17	17	17		17	17	17	17	17	21	197				

1978 European Championships (Prague, TCH)

Behm (1995) - la tactique du 400 haies

FINAL

date 02-Sep-78 *Breiser (1990) - tendencies in the development of women for 400m races with hurdles*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Zelentsova, Tatyana (URS) (	time	6.8	11.3	15.7	20.3	24.9	26.9	29.4	34.1	38.9	43.8	48.9		54.89	4 / 1		*Breiser (1990)*	
reaction time	interval		4.5	4.4	4.6	4.6		4.5	4.7	4.8	4.9	5.1	5.99	WR		13.50	13.80	14.80
	velocity	6.62	7.78	7.95	7.61	7.61	7.43	7.78	7.45	7.29	7.14	6.86	6.68	7.29		7.78	7.61	7.09
H1 lead leg L	strides	24	17	17	17	17		17	17	17	17	17	21	198				
Hollmann, Silvia (FRG) (1955	time	6.5	10.8	15.2	19.6	24.2	26.2	28.7	33.2	38.1	43.1	48.5		55.14	6 / 2		*Behm (1995)*	
reaction time	interval		4.3	4.4	4.4	4.6		4.5	4.5	4.9	5.0	5.4	6.64			13.10	13.60	15.30
	velocity	6.92	8.14	7.95	7.95	7.61	7.63	7.78	7.78	7.14	7.00	6.48	6.02	7.25		8.02	7.72	6.86
H1 lead leg R	strides	23	15	15	15	15		15	15	16	16	17	20	182				
																	Behm (1995)	
Roßley, Karin (GDR) (1957)	time	6.5	10.5	14.8	19.2	23.9	25.7	28.8	33.9	39.0	44.2	49.5		55.36	1 / 3			
reaction time	interval		4.0	4.3	4.4	4.7		4.9	5.1	5.1	5.2	5.3	5.86	NR		12.70	14.70	15.60
	velocity	6.92	8.75	8.14	7.95	7.45	7.78	7.14	6.86	6.86	6.73	6.60	6.83	7.23		8.27	7.14	6.73
H1 lead leg L	strides	23	15	15	15	15		16	16	17	17	17	21	187				
Köhn, Brigitte (GDR) (1954)	no information available													55.46	5 / 4			
Kacperczyk, Krystyna (POL) (1948)	no information available													55.55	3 / 5			
Weiß, Anita (GDR) (1955)	no information available													55.63	2 / 6			

Heat 3

date 01-Sep-78 *McFarlane (1980) - understanding the 400m hurdles*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sutherland, Liz (GBR) (1947)	time	6.9	11.5	16.1	20.9	25.7	27.7	30.5	35.5	40.6	45.7	51.6		57.60	/ 1			
reaction time	interval		4.6	4.6	4.8	4.8		4.8	5.0	5.1	5.1	5.9	6.00			14.00	14.60	16.10
	velocity	6.52	7.61	7.61	7.29	7.29	7.22	7.29	7.00	6.86	6.86	5.93	6.67	6.94		7.50	7.19	6.52
H1 lead leg	strides		15	15	15	15		15	16	17	17	17		142				

1977 European Cup (Helsinki, FIN)

FINAL

date 13-Aug-77 *McFarlane (1979) - le 400 m haies feminin*

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10

WR=World Rec. AR=Area Rec. OR=Olympic Rec. CR=Championship Rec. NR=National Rec. PB=Personal Best DQ=Disqualified DV=Drug Violation

Roßley, Karin (GDR) (1957)	time	6.5	10.9	15.4	19.8	24.5	26.5	29.4	34.2	39.3	44.5	49.7		55.63	/ 1			
reaction time	interval		4.40	4.50	4.40	4.70		4.90	4.80	5.10	5.20	5.20	5.93	WR		13.30	14.40	15.50
	velocity	6.92	7.95	7.78	7.95	7.45	7.55	7.14	7.29	6.86	6.73	6.73	6.75	7.19		7.89	7.29	6.77
H1 lead leg	strides																	

1973 DLV-Test (Frankfurt-am-Main, FRG)

FINAL date 28-Jul-73

Keydel (1973) - 400m Hürden test der frauen vom 26. bis 28.7.1973

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Weinstein, Erika (FRG) (1950	time	6.7	11.4	16.1	21.1	26.0	28.1	31.0	36.2	41.3	46.6	52.4		58.66	/ 1			
reaction time	interval		4.73	4.69	4.98	4.84		5.09	5.12	5.12	5.35	5.81	6.22	NR		14.40	15.05	16.28
	velocity	6.71	7.40	7.46	7.03	7.23	7.12	6.88	6.84	6.84	6.54	6.02	6.43	6.82		7.29	6.98	6.45
H1 lead leg	strides	23	17	17	17	17		17	17	17	9	19		170				
Kovacev, Mirjana (FRG)	time	6.7	11.4	16.3	21.2	26.2	28.2	31.3	37.0	43.2	49.5	55.9		63.20	/ 2			
reaction time	interval		4.65	4.91	4.91	4.97		5.14	5.74	6.20	6.23	6.40	7.33			14.47	15.85	18.83
	velocity	6.70	7.53	7.13	7.13	7.04	7.09	6.81	6.10	5.65	5.62	5.47	5.46	6.33		7.26	6.62	5.58
H1 lead leg	strides	23	17	17	17	17		17	17	17	19	19		180				
Gutewort, Marlies (FRG)		no information available					29.0							62.50	/ 3			
H1 lead leg	strides	23	17	17	17	17		17	17	17	19	19		180				
Petersen, Elke (FRG) (1948)	time	7.0	11.9	16.9	21.8	26.9	29.1	32.2	38.1	43.8	49.9	55.9		62.90	/ 4			
reaction time	interval		4.85	5.00	4.96	5.07		5.28	5.86	5.73	6.10	5.98	7.04			14.81	16.21	17.81
	velocity	6.40	7.22	7.00	7.06	6.90	6.87	6.63	5.97	6.11	5.74	5.85	5.68	6.36		7.09	6.48	5.90
H1 lead leg	strides	24	17	17	17	17		18	18	19	19	19		185				
Horlacher, Ester (FRG)	time	7.3	12.3	17.3	22.7	28.2	30.7	34.2	40.1	46.2	52.2	58.1		65.00	/ 5			
reaction time	interval		4.95	5.03	5.37	5.50		6.03	5.90	6.08	6.08	5.88	6.88			15.35	17.43	18.04
	velocity	6.16	7.07	6.96	6.52	6.36	6.51	5.80	5.93	5.76	5.76	5.95	5.81	6.15		6.84	6.02	5.82
H1 lead leg	strides	24	17	17	17	17		17	17	19	19	19		183				
Ohms, Sabine (FRG) (1954)	time	6.9	12.0	17.0	22.2	27.7	30.2	33.7	39.8	46.0	52.4	59.0		66.85	/ 6			
reaction time	interval		5.07	4.99	5.15	5.59		5.91	6.18	6.18	6.40	6.55	7.89			15.21	17.68	19.13
	velocity	6.48	6.90	7.01	6.80	6.26	6.62	5.92	5.66	5.66	5.47	5.34	5.07	5.98		6.90	5.94	5.49
H1 lead leg	strides	24	17	17	17	17		19	19	18	19	19		186				
Heitmann, Kersten (FRG)	time	7.3	12.4	17.5	23.0	28.6	31.1	34.6	40.7	46.9	53.5			68.30	/ 7			
reaction time	interval		5.10	5.10	5.47	5.59		6.05	6.09	6.21	6.57					15.67	17.73	
	velocity	6.16	6.86	6.86	6.40	6.26	6.43	5.79	5.75	5.64	5.33			5.86		6.70	5.92	
H1 lead leg	strides	24	17	17	17	17		17	17	18	18	19		181				
Linz, Christine (FRG) (1940)	time	7.2	12.7	18.2	23.9	29.5	32.0	35.6	41.6	47.7	54.6	61.2		68.31	/ 8			
reaction time	interval		5.41	5.54	5.66	5.69		6.09	5.94	6.15	6.85	6.64	7.10			16.61	17.72	19.64
	velocity	6.22	6.47	6.32	6.18	6.15	6.25	5.75	5.89	5.69	5.11	5.27	5.63	5.86		6.32	5.93	5.35
H1 lead leg	strides	25	17	17	17	17		17	17	19	19	21		186				

1973 British International Games (Edinburgh, GBR)

FINAL date 16-Jun-73

Ewen (1976) - 400m haies feminin

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Sykora, Maria (AUT) (1946)	time	6.6	11.0	15.4	20.4	25.5		30.8	36.3	41.5	46.7	52.5	*(58.53)*	58.5	/ 1			
reaction time	interval		4.4	4.4	5.0	5.1		5.3	5.5	5.2	5.2	5.8	6.0	WR		13.80	15.90	16.20
	velocity	6.82	7.95	7.95	7.00	6.86		6.60	6.36	6.73	6.73	6.03	6.67	6.84		7.61	6.60	6.48
H1 lead leg	strides																	

1971 West German Athletics - 400m Hurdles Test (Bonn, FRG)

FINAL date 15-May-71

Keydel (1971) - die 400m hürden machten das rennen

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Dyson, Sandra (GBR) (1977)	time	6.8	11.4	16.2	21.2	26.7		32.0	37.6	43.4	49.2	54.9		61.1	/ 1			
reaction time	interval		4.6	4.8	5.0	5.5		5.3	5.6	5.8	5.8	5.7	6.2			14.40	16.40	17.30
	velocity	6.62	7.61	7.29	7.00	6.36		6.60	6.25	6.03	6.03	6.14	6.45	6.55		7.29	6.40	6.07
H1 lead leg	strides	24	17	17	17	19		19	19	19	19	19		189				
Ellenberger, Gisela (FRG) (19	time	7.4	12.6	17.7	22.8	28.0		33.7	39.8	45.6	51.3	56.9		62.0	/ 2			
reaction time	interval		5.2	5.1	5.1	5.2		5.7	6.1	5.8	5.7	5.6	5.1			15.40	17.00	17.10
	velocity	6.08	6.73	6.86	6.86	6.73		6.14	5.74	6.03	6.14	6.25	7.84	6.45		6.82	6.18	6.14
H1 lead leg	strides	24	17	17	17	17		19	19	19	19	19		187				
Kovacev, Mirjana (FRG)	time	7.2	12.0	17.2	22.4	27.8		33.2	39.0	44.8	50.5	56.2		62.0	/ 3			
reaction time	interval		4.8	5.2	5.2	5.4		5.4	5.8	5.8	5.7	5.7	5.8			15.20	16.60	17.20
	velocity	6.25	7.29	6.73	6.73	6.48		6.48	6.03	6.03	6.14	6.14	6.90	6.45		6.91	6.33	6.10
H1 lead leg	strides	23	17	17	17	17		17	19	19	19	19		184				
Beermann, Elke (FRG)	time	7.5	13.0	18.6	24.2	29.8		35.3	40.8	46.3	51.6	56.9		62.6	/ 4			
reaction time	interval		5.5	5.6	5.6	5.6		5.5	5.5	5.5	5.3	5.3	5.7			16.70	16.60	16.10
	velocity	6.00	6.36	6.25	6.25	6.25		6.36	6.36	6.36	6.60	6.60	7.02	6.39		6.29	6.33	6.52
H1 lead leg	strides	24	19	19	19	19		19	19	19	19	19		195				
Gerhard, Heidi (FRG) (1941)	time	7.4	12.6	17.7	22.9	28.2		33.9	39.7	45.6	51.5	57.5		65.0	/ 5			
reaction time	interval		5.2	5.1	5.2	5.3		5.7	5.8	5.9	5.9	6.0	7.5			15.50	16.80	17.80

	velocity	6.08	6.73	6.86	6.73	6.60	6.14	6.03	5.93	5.93	5.83	5.33	6.15		6.77	6.25	5.90
H1 lead leg	strides	23	17	17	17	17	19	19	19	19	19		186				
Obeck, Waltraud (FRG) (194	time	7.5	12.5	17.5	22.6	27.9	33.4	38.8	45.0	51.6	58.0		65.3	/ 6			
reaction time	interval		5.0	5.0	5.1	5.3	5.5	5.4	6.2	6.6	6.4	7.3			15.10	16.20	19.20
	velocity	6.00	7.00	7.00	6.86	6.60	6.36	6.48	5.65	5.30	5.47	5.48	6.13		6.95	6.48	5.47
H1 lead leg	strides	24	17	17	17	17	19	19	19	21	21		191				

1971 West German Athletics - 300m Hurdles Test (Bonn, FRG)

FINAL date 15-May-71

Keydel (1971) - 300 ou 400 haies pour les femmes?

		H1	H2	H3	H4	H5	200m	H6	H7	H8	H9	H10	Run-In	Official Time	Lane / Place	H1-H4	H4-H7	H7-H10
Schallau, Karin (FRG) (1941)	time	4.1	7.9	11.6	15.4	19.3		23.6	27.6	31.7	36.1	41.4		44.4	/ 1			
reaction time	interval		3.8	3.7	3.8	3.9		4.3	4.0	4.1	4.4	5.3	3.0			11.30	12.20	13.80
	velocity																	
H1 lead leg	strides	13	13	13	13	13		13	13	13	13	13		130				
Leuschner, Uschi (FRG)	time	4.0	7.8	11.5	15.4	19.5		23.7	28.2	32.6	37.2	41.8		44.5	/ 2			
reaction time	interval		3.8	3.7	3.9	4.1		4.2	4.5	4.4	4.6	4.6	2.7			11.40	12.80	13.60
	velocity																	
H1 lead leg	strides	13	13	13	13	13		13	15	15	15	15		138				
Gloor, Rita (FRG)	time	4.1	7.8	11.5	15.3	19.1		23.2	27.5	31.9	36.8	41.6		45.0	/ 3			
reaction time	interval		3.7	3.7	3.8	3.8		4.1	4.3	4.4	4.9	4.8	3.4			11.20	12.20	14.10
	velocity																	
H1 lead leg	strides	13	13	13	13	13		13	13	13	15	15		134				
Grenwald, Lydia (FRG)	time	4.3	8.1	12.1	16.2	20.2		24.3	28.6	33.3	38.1	42.8		45.7	/ 4			
reaction time	interval		3.8	4.0	4.1	4.0		4.1	4.3	4.7	4.8	4.7	2.9			11.90	12.40	14.20
	velocity																	
H1 lead leg	strides	13	13	13	13	13		13	13	15	15	15		136				
Schirme, Randi (FRG)	time	4.1	7.9	11.8	15.6	19.6		24.1	28.6	33.3	38.1	43.0		46.4	/ 5			
reaction time	interval		3.8	3.9	3.8	4.0		4.5	4.5	4.7	4.8	4.9	3.4			11.50	13.00	14.40
	velocity																	
H1 lead leg	strides	13	13	13	13	13		15	15	15	15	15		140				