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REPORT**

A study by *The Blood-Horse* shows a decline in starts per foal since 1970



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July 26, 2008/No.30

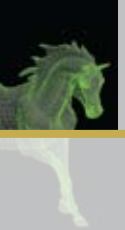
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One Slice of a Complex Statistical Pie

BY ERIC MITCHELL

The toughness of the modern Thoroughbred racehorse has been questioned for years. A steady decline in average starts per starter reported by The Jockey Club since 1950 has fueled speculation that the runners of 30 to 40 years ago were made of sterner stuff. Speculation has grown into genuine industry-wide alarm beginning with the high-profile breakdown of Barbaro in the 2006 Preakness Stakes (gr. I) and peaking with the tragic collapse of Eight Belles following this year's Kentucky Derby Presented by Yum! Brands (gr. I).

Study shows average starts per foal has dropped significantly since the 1970s

Compiling figures on starts per starter for all runners in North America yields an interesting statistic, but it doesn't provide any insight. After all, graded stakes winners are lumped together with \$5,000 claimers, and these two groups of racehorses are managed very differently. In order to begin understanding the scope of the problem, *The Blood-Horse* set out four months ago to first identify whether a problem even existed. We had one question to answer: Is there real evidence that racehorses aren't as tough as they once were? The short answer is "yes." The average starts per foal has fallen 35.6% from 20.42 for foals born in the 1970s to 13.15 for the foals of 2000-2003. The average starts per 2-year-old starter is down 30.4%, the average starts per 3-year-old starter has dropped 31.3%, and the average starts per starter that were 4 years old and up has fallen a dramatic 50%.

These statistics were derived from detailed worldwide race records supplied by The Jockey Club Information Systems. *The Blood-Horse* compiled the records for foals born in 1970-1979, 1980-1989, 1990-1999, and 2000-2003. The records were aggregated by type of stallions and by decade. To be sure the stallions represented had enough runners to provide meaningful statistics, the study only includes stallions with a minimum of 40 named foals of racing age during each of the 10-year periods (with the obvious exception of the 2000-2003 group, which only covers four years).

The next step was to identify a meaningful statistic that could be uniformly applied to each decade and provide at

least a cursory indication of how many foals were sturdy enough to withstand training and become racehorses, then indicate their longevity once they began racing.

With the help of statistician Dr. Richard Thalheimer, president of Thalheimer Research Associates, *The Blood-Horse* identified starts per foal as the key indicator. Starts per foal is statistically equivalent to combining the percentage of runners from named foals and the percentage of starts from starters. From that data came starts per foal for each stallion in the study.

The starts per foal statistic should not be misconstrued to represent any sort of comprehensive indicator of soundness or durability of a stallion's progeny. The number is one slice of a complex statistical pie. It is, however, a number that can be applied uniformly across the decades in order to identify trends.

As discussed earlier, not all racehorses are managed the same way. Anecdotally, industry professionals will say horses with more residual value as breeding stock tend to race less. Trainers and owners are likely more selective in the races they pick for higher-priced horses. Once a horse has shown an ability to run, the exit to the breeding shed can come quickly.

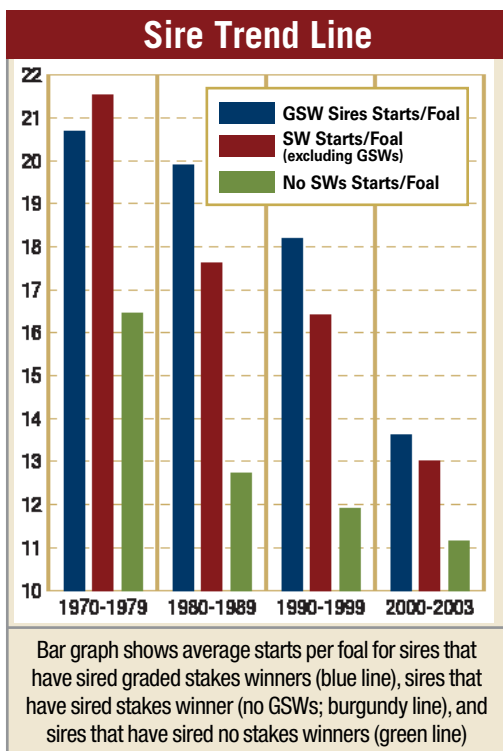
In order to make more uniform comparisons by quality, *The Blood-Horse* further subdivided the stallions by the quality of their runners. Originally, the plan was to subdivide stallions by stud fee, but reliable stud fee data is not available back to the 1970s, when a large percentage of commercial stallions were listed with private fees. Instead, it was decided to group stallions according to whether they had sired a grade I winner, a grade II or grade III winner, a non-graded stakes winner, or had not sired any stakes winners.

Within each stallion subgroup, the decline in starts per foal between 1970 and 2003 was consistent. The starts per foal among the sires of grade I winners was 19.32 in the '70s, falling to 13.10 for the 2000-03 crops. The sires of non-graded stakes winners collectively had 21.51 starts per foal in the '70s, which has fallen to 13 for the foals of 2000-03.

The study did produce some surprises. The sires of graded stakes and non-graded stakes winners had higher starts per foal than sires that had not produced any stakes winners. The sires of grade II or grade III winners consistently had the highest starts per foal.

Also, the percentage of starters from foals has tracked upward since the '70s. Overall, the starters from named foals increased to 78.6% for the 2000-03 foals, up from 70.3% in the '70s. Among the sires of all graded stakes winners, the percentage of starters from foals rose from 73% in the '70s to 82% for the 2000-03 crops.

Determining what these numbers mean is the next step in the evolution of this study. Is there a genetic component to the decline, or is it caused by how racehorses are managed today? *The Blood-Horse* began the discussion by inviting six industry participants for a roundtable discussion, which is excerpted on page 3694. Additional comments will be provided in a video presentation appearing on BloodHorse.com.



STATISTICS BY DECADE

Decade	No. of Stallions	N. Am. Foals of Racing Age (named)	Starters	% Strter (Fis)	Starts/Foal	Starts	Starts/Strter	Starters_2yo	Starts_2yo	2yo Strts/Str
1970-1979 Stallions	1,753	156,986	110,416	70.3%	20.42	3,205,033	29.03	47,397	232,057	4.90
1980-1989 Stallions	2,834	310,571	233,152	75.1%	17.84	5,539,772	23.76	116,278	487,629	4.19
1990-1999 Stallions	2,016	244,810	189,669	77.5%	16.89	4,133,658	21.79	96,364	361,875	3.76
2000-2003 Stallions	925	100,350	78,914	78.6%	13.15	1,319,378	16.72	39,370	134,348	3.41

BY STAKES WINNERS

1970-1979 Foal Crops	No. of Stallions	N. Am. Foals of Racing Age (named)	Starts	Starts/Foal	Strters (% Fis)	Starts/Strter	2yo Starters	2yo Starts	2yo Strts/Str
G1SW Sires	197	33,568	648,588	19.32	24,211 (72%)	26.79	11,069	50,918	4.60
G2 & G3 Sires	262	29,667	658,189	22.19	21,887 (74%)	30.07	10,141	50,779	5.01
All GSW Sires	459	63,235	1,306,777	20.67	46,098 (73%)	28.35	21,210	101,697	4.79
SW (no GSWs)	885	70,316	1,512,197	21.51	50,271 (72%)	30.08	21,680	108,706	5.01
Sires with no SWs	409	23,435	386,059	16.47	14,047 (60%)	27.48	4,507	21,654	4.80
1980-1989 Foal Crops	No. of Stallions	N. Am. Foals of Racing Age (named)	Starts	Starts/Foal	Strters (% Fis)	Starts/Strter	2yo Starters	2yo Starts	2yo Strts/Str
G1SW Sires	337	74,908	1,423,327	19.00	60,210 (80%)	23.64	30,494	120,664	3.96
G2 & G3 Sires	365	58,338	1,227,352	21.04	46,472 (80%)	26.41	24,619	108,240	4.40
All GSW Sires	702	133,246	2,650,679	19.89	106,682 (80%)	24.85	55,113	228,904	4.15
SW (no GSWs)	1,364	129,817	2,284,601	17.60	96,432 (74%)	23.69	48,443	206,832	4.27
Sires with no SWs	768	47,508	604,492	12.72	30,038 (63%)	20.12	12,722	51,893	4.08
1990-1999 Foal Crops	No. of Stallions	N. Am. Foals of Racing Age (named)	Starts	Starts/Foal	Strters (% Fis)	Starts/Strter	2yo Starters	2yo Starts	2yo Strts/Str
G1SW Sires	284	75,155	1,328,866	17.68	62,229 (83%)	21.35	33,235	118,722	3.57
G2 & G3 Sires	346	54,701	1,033,748	18.90	44,215 (81%)	23.38	23,471	92,832	3.96
All GSW Sires	630	129,856	2,362,614	18.19	106,444 (82%)	22.20	56,706	211,554	3.73
SW (no GSWs)	978	89,924	1,473,503	16.39	67,460 (75%)	21.84	33,309	127,477	3.83
Sires with no SWs	408	25,030	297,541	11.89	15,765 (63%)	18.87	6,349	22,844	3.60
2000-2003 Foal Crops	No. of Stallions	N. Am. Foals of Racing Age (named)	Starts	Starts/Foal	Strters (% Fis)	Starts/Strter	2yo Starters	2yo Starts	2yo Strts/Str
G1SW Sires	175	31,547	413,267	13.10	25,741 (82%)	16.05	13,296	43,430	3.27
G2 & G3 Sires	168	23,946	342,286	14.29	19,500 (81%)	17.55	10,493	37,661	3.59
All GSW Sires	343	55,493	755,553	13.62	45,241 (82%)	16.70	23,789	81,091	3.41
SW (no GSWs)	398	34,311	446,172	13.00	26,176 (76%)	17.05	12,604	43,326	3.44
Sires with no SWs	184	10,546	117,653	11.16	7,497 (71%)	15.69	2,977	9,931	3.34

STALLIONS WITH FOALS OF 1990-1999

Stud Fee Range	No. of Stallions	N. Am. Foals of Racing Age (named)	Starters	% Strter (Fis)	Starts/Foal	Starts	Starts/Strter	Starters 2yo	Starts 2yo
\$100,000 and up	17	6,326	5,119	80.9%	12.02	76,033	14.85	2,629	7,485
\$75,000 to \$99,000	11	3,776	3,126	82.8%	14.99	56,609	18.11	1,543	4,623
\$50,000 to \$74,000	22	8,676	7,174	82.7%	15.64	135,697	18.92	3,702	11,488
\$25,000 to \$49,000	58	18,015	14,898	82.7%	16.58	298,707	20.05	7,865	26,769
\$15,000 to \$24,000	97	25,040	20,866	83.3%	18.55	464,513	22.26	11,108	40,314
\$10,000 to \$14,900	77	16,312	13,649	83.7%	19.49	317,971	23.30	7,310	28,175
\$5,000 to \$9,900	256	39,486	32,097	81.3%	19.55	771,994	24.05	17,640	72,005
\$4,900 and under	1210	109,580	80,644	73.6%	16.09	1,763,314	21.87	39,174	150,790

STALLIONS WITH FOALS OF 2000-2003

Stud Fee Range	No. of Stallions	N. Am. Foals of Racing Age (named)	Starters	% Strter (Fis)	Starts/Foal	Starts	Starts/Strter	Starters 2yo	Starts 2yo
\$100,000 and up	20	4,082	3,213	78.7%	9.07	37,005	11.52	1,541	3,961
\$75,000 to \$99,000	9	1,979	1,623	82.0%	11.66	23,077	14.22	843	2,441
\$50,000 to \$74,000	15	3,500	2,905	83.0%	12.94	45,275	15.59	1,492	4,737
\$25,000 to \$49,000	60	12,261	10,065	82.1%	12.43	152,402	15.14	5,266	16,552
\$15,000 to \$24,000	54	9,349	7,749	82.9%	14.28	133,535	17.23	4,107	13,640
\$10,000 to \$14,900	73	10,358	8,561	82.7%	14.98	155,160	18.12	4,607	16,241
\$5,000 to \$9,900	210	24,005	19,178	79.9%	14.59	350,278	18.26	9,916	36,518
\$4,900 and under	451	32,823	24,199	73.7%	12.21	400,757	16.56	10,981	38,302

<i>Starters 3yo</i>	<i>Starts 3yo</i>	<i>3yo Strts/Str</i>	<i>Starters 4yo+</i>	<i>Starts 4yo+</i>	<i>4yo+ Strts/Str</i>	<i>Avg Win Dist</i>	<i>Avg Yrs Raced/Rnr</i>	<i>SW AWD</i>	<i>GSW AWD</i>
84,200	831,171	9.87	82,469	2,141,805	25.97	6.64	3.09	7.39	8.53
203,749	1,751,728	8.60	160,734	3,300,415	20.53	6.73	2.84	7.46	8.60
165,066	1,254,282	7.60	133,276	2,517,500	18.89	6.72	2.97	7.43	8.52
68,023	461,009	6.78	55,843	724,021	12.97	6.70	2.68	7.46	8.28

<i>3yo Starters</i>	<i>3yo Starts</i>	<i>3yo Strts/Str</i>	<i>4yo+ Starters</i>	<i>4yo+ Starts</i>	<i>4yo+ Strts/Str</i>	<i>Avg Yrs Raced/Rnr</i>	<i>Avg Win Dist</i>	<i>SW AWD</i>	<i>GSW AWD</i>
19,234	180,015	9.36	17,192	417,655	24.29	3.05	7.09	8.11	8.72
17,109	174,066	10.17	16,267	433,344	26.64	3.17	6.79	7.71	8.38
36,343	354,081	9.74	33,459	850,999	25.43	3.12	6.92	7.88	8.53
38,155	383,578	10.05	38,236	1,019,913	26.67	3.17	6.57	7.13	
9,702	93,512	9.64	10,774	270,893	25.14	2.87	6.49		

<i>3yo Starters</i>	<i>3yo Starts</i>	<i>3yo Strts/Str</i>	<i>4yo+ Starters</i>	<i>4yo+ Starts</i>	<i>4yo+ Strts/Str</i>	<i>Avg Yrs Raced/Rnr</i>	<i>Avg Win Dist</i>	<i>SW AWD</i>	<i>GSW AWD</i>
53,174	440,943	8.29	41,993	861,720	20.52	3.04	7.39	8.25	8.82
41,192	380,480	9.24	33,220	738,632	22.23	3.07	6.95	7.79	8.40
94,366	821,423	8.70	75,213	1,600,352	21.28	3.05	7.16	8.01	8.60
84,140	727,178	8.64	65,887	1,350,591	20.50	2.88	6.60	7.18	
25,243	203,127	8.05	19,634	349,472	17.80	2.58	6.57		

<i>3yo Starters</i>	<i>3yo Starts</i>	<i>3yo Strts/Str</i>	<i>4yo+ Starters</i>	<i>4yo+ Starts</i>	<i>4yo+ Strts/Str</i>	<i>Avg Yrs Raced/Rnr</i>	<i>Avg Win Dist</i>	<i>SW AWD</i>	<i>GSW AWD</i>
55,261	401,348	7.26	43,946	808,796	18.40	3.15	7.31	8.18	8.73
38,886	312,714	8.04	31,651	628,201	19.85	3.14	6.88	7.72	8.34
94,147	714,062	7.58	75,597	1,436,997	19.01	3.15	7.07	7.93	8.52
58,124	448,291	7.71	47,058	897,735	19.08	2.99	6.58	7.12	
12,795	91,929	7.18	10,621	182,768	17.21	2.66	6.52		

<i>3yo Starters</i>	<i>3yo Starts</i>	<i>3yo Strts/Str</i>	<i>4yo+ Starters</i>	<i>4yo+ Starts</i>	<i>4yo+ Strts/Str</i>	<i>Avg Yrs Raced/Rnr</i>	<i>Avg Win Dist</i>	<i>SW AWD</i>	<i>GSW AWD</i>
22,533	145,499	6.46	18,097	224,338	12.40	2.74	7.13	8.01	8.44
17,110	121,111	7.08	13,811	183,514	13.29	2.76	6.89	7.63	8.10
39,643	266,610	6.73	31,908	407,852	12.78	2.75	7.01	7.82	8.28
22,246	153,231	6.89	18,726	249,615	13.33	2.70	6.51	7.05	
6,134	41,168	6.71	5,209	66,554	12.78	2.50	6.51		

<i>2yo Strts/Str</i>	<i>Starters 3yo</i>	<i>Starts 3yo</i>	<i>3yo Strts/Str</i>	<i>Starters 4yo+</i>	<i>Starts 4yo+</i>	<i>4yo+ Strts/Str</i>	<i>Avg. Yrs Raced</i>	<i>AWD</i>	<i>SW AWD</i>	<i>GSW AWD</i>
2.85	4,550	25,083	5.51	3,246	43,465	13.39	2.79	8.10	8.56	8.73
3.00	2,765	17,534	6.34	2,064	34,452	16.69	3.01	8.44	9.03	9.32
3.10	6,392	40,589	6.35	4,917	83,620	17.01	3.10	8.01	8.64	8.86
3.40	13,176	91,080	6.91	10,360	180,858	17.46	3.08	7.50	8.20	8.64
3.63	18,590	141,347	7.60	15,069	282,852	18.77	3.13	7.14	7.87	8.47
3.85	12,076	95,572	7.91	9,849	194,224	19.72	3.18	6.99	7.64	8.51
4.08	28,418	234,807	8.26	23,026	465,182	20.20	3.14	6.88	7.58	8.45
3.85	68,999	532,821	7.72	56,493	1,079,702	19.11	2.94	6.59	7.27	8.52

<i>2yo Strts/Str</i>	<i>Starters 3yo</i>	<i>Starts 3yo</i>	<i>3yo Strts/Str</i>	<i>Starters 4yo+</i>	<i>Starts 4yo+</i>	<i>4yo+ Strts/Str</i>	<i>Avg. Yrs Raced</i>	<i>AWD</i>	<i>SW AWD</i>	<i>GSW AWD</i>
2.57	2,772	13,605	4.91	2,097	19,439	9.27	2.55	7.95	8.55	8.86
2.90	1,419	7,899	5.57	1,101	12,737	11.57	2.71	7.50	8.13	8.64
3.18	2,554	15,592	6.11	2,037	24,946	12.25	2.75	7.41	7.94	8.19
3.14	8,818	54,747	6.21	6,927	81,103	11.71	2.69	7.26	7.95	8.10
3.32	6,854	46,699	6.81	5,556	73,196	13.17	2.77	6.96	7.65	8.05
3.53	7,608	55,262	7.26	6,127	83,657	13.65	2.79	6.89	7.80	8.62
3.68	16,562	121,769	7.35	13,801	191,991	13.91	2.75	6.77	7.48	8.19
3.49	20,258	137,985	6.81	17,185	224,470	13.06	2.62	6.45	7.01	8.19

Stallion (FCY)	Sire	Dam	Named Foals R.A.	Starts	Starts /Foal	Starters (% Fls)	Starts/ Strter	Wnrs (% Fls)	SW (% Fls)	GSW (% Fls)	G1SW (% Fls)	Earnings
Top Sires of G1 Stakes Winners by Starts/Foal, 1970-1979												
Terrible Tiger (1972)	Amerigo	Proprietress	107	4,055	37.90	97 (91%)	41.80	81 (76%)	16 (15%)	4 (3.7%)	2 (1.9%)	\$4,861,680
Spring Double (1971)	Double Jay	Sunset Gun II	180	6,774	37.63	149 (83%)	45.46	130 (72%)	17 (9%)	2 (1.1%)	1 (0.6%)	\$7,477,615
Ole Bob Bowers (1972)	Prince Blessed	Blue Jeans	104	3,804	36.58	87 (84%)	43.72	70 (67%)	5 (5%)	3 (2.9%)	1 (1%)	\$9,502,643
Northern Jove (1975)	Northern Dancer	Junonia	98	3,523	35.95	94 (96%)	37.48	85 (87%)	12 (12%)	2 (2%)	1 (1%)	\$4,677,751
Judgable (1973)	Delta Judge	One Quest	111	3,866	34.83	94 (85%)	41.13	84 (76%)	9 (8%)	2 (1.8%)	1 (0.9%)	\$3,277,246
Naskra (1974)	Nasram	Iskra	159	5,272	33.16	141 (89%)	37.39	118 (74%)	23 (14%)	8 (5%)	4 (2.5%)	\$9,540,891
Staff Writer (1973)	Northern Dancer	Twill	135	4,439	32.88	115 (85%)	38.60	89 (66%)	9 (7%)	2 (1.5%)	2 (1.5%)	\$4,728,676
Lanyon (1974)	Cornish Prince	Lemon Souffle	135	4,358	32.28	118 (87%)	36.93	89 (66%)	7 (5%)	1 (0.7%)	1 (0.7%)	\$3,066,304
Protanto (1973)	Native Dancer	Foolish One	73	2,354	32.25	56 (77%)	42.04	46 (63%)	5 (7%)	1 (1.4%)	1 (1.4%)	\$2,555,057
Dust Commander (1972)	Bold Commander	Dust Storm	66	2,043	30.95	57 (86%)	35.84	50 w(76%)	8 (12%)	2 (3%)	2 (3%)	\$2,831,175
Poppy Jay (1966)	Double Jay	White Poppy	91	2,769	30.43	63 (69%)	43.95	54 (59%)	8 (9%)	2 (2.2%)	1 (1.1%)	\$1,534,278
Verbatim (1972)	Speak John	Well Kept	220	6,522	29.65	186 (85%)	35.06	154 (70%)	30 (14%)	10 (4.5%)	1 (0.5%)	\$9,293,237
Court Ruling (1976)	Traffic Judge	Fun House	71	2,078	29.27	58 (82%)	35.83	53 (75%)	5 (7%)	1 (1.4%)	1 (1.4%)	\$2,038,324
Berkley Prince (1973)	Rash Prince	Betrayed	53	1,541	29.08	46 (87%)	33.50	33 (62%)	2 (4%)	1 (1.9%)	1 (1.9%)	\$1,692,301
Northern Answer (1971)	Northern Dancer	Windy Answer	168	4,841	28.82	133 (79%)	36.40	108 (64%)	13 (8%)	1 (0.6%)	1 (0.6%)	\$4,421,508
Our Michael (1970)	Bolero	Our Tribe	192	5,447	28.37	158 (82%)	34.47	136 (71%)	23 (12%)	5 (2.6%)	1 (0.5%)	\$5,964,994
Triple Bend (1974)	Never Bend	Triple Orbit	136	3,820	28.09	116 (85%)	32.93	93 (68%)	7 (5%)	1 (0.7%)	1 (0.7%)	\$3,540,219
Advocator (1970)	Round Table	Delta Queen	218	6,056	27.78	167 (77%)	36.26	135 (62%)	22 (10%)	10 (4.6%)	3 (1.4%)	\$7,699,082
Distinctive (1972)	Never Bend	Precious Lady	203	5,571	27.44	176 (87%)	31.65	147 (72%)	11 (5%)	5 (2.5%)	1 (0.5%)	\$6,177,229
Navajo (1977)	Grey Dawn II	Doublene	72	1,975	27.43	61 (85%)	32.38	47 (65%)	7 (10%)	1 (1.4%)	1 (1.4%)	\$1,995,039
Cahasa (1974)	Prince John	Ultimate Weapon	62	1,694	27.32	54 (87%)	31.37	44 (71%)	4 (6%)	1 (1.6%)	1 (1.6%)	\$955,651
Hail the Pirates (1978)	Hail to Reason	Bravura	56	1,527	27.27	50 (89%)	30.54	39 (70%)	5 (9%)	4 (7.1%)	2 (3.6%)	\$2,401,035
Dewan (1972)	Bold Ruler	Sunshine Nell	250	6,806	27.22	195 (78%)	34.90	151 (60%)	28 (11%)	11 (4.4%)	2 (0.8%)	\$10,782,789
Mr. Leader (1972)	Hail to Reason	Jolie Deja	278	7,561	27.20	232 (83%)	32.59	197 (71%)	33 (12%)	12 (4.3%)	2 (0.7%)	\$13,763,533
Vice Regent (1973)	Northern Dancer	Victoria Regina	152	4,117	27.09	131 (86%)	31.43	113 (74%)	27 (18%)	1 (0.7%)	1 (0.7%)	\$6,929,659
Better Bee (1963)	Triplicate	S. Bee	122	3,305	27.09	92 (75%)	35.92	77 (63%)	6 (5%)	1 (0.8%)	1 (0.8%)	\$2,157,777
Exploident (1975)	Nearctic	Venomous	130	3,518	27.06	112 (86%)	31.41	92 (71%)	13 (10%)	6 (4.6%)	1 (0.8%)	\$5,653,865
Starts/Foal norms for all sires of G1 SW for 70-79					19.32							
Top Sires of G1 Stakes Winners by Total Stakes Winners, 1970-1979												
Northern Dancer (1966)	Nearctic	Natalma	289	3,384	11.71	190 (66%)	17.81	142 (49%)	60 (21%)	32 (11.1%)	8 (2.8%)	\$10,693,966
Nijinsky II (1972)	Northern Dancer	Flaming Page	257	2,251	8.76	170 (66%)	13.24	130 (51%)	49 (19%)	32 (12.5%)	13 (5.1%)	\$10,583,137
In Reality (1970)	Intentionally	My Dear Girl	256	3,958	15.46	184 (72%)	21.51	156 (61%)	45 (18%)	15 (5.9%)	5 (2%)	\$12,185,195
Hoist the Flag (1973)	Tom Rolfe	Wavy Navy	203	2,644	13.02	161 (79%)	16.42	126 (62%)	44 (22%)	21 (10.3%)	7 (3.4%)	\$10,212,486
Damascus (1970)	Sword Dancer	Kerala	338	3,521	10.42	225 (67%)	15.65	163 (48%)	44 (13%)	25 (7.4%)	7 (2.1%)	\$11,284,495
Olden Times (1966)	Relic	Djenne	349	5,906	16.92	235 (67%)	25.13	191 (55%)	43 (12%)	10 (2.9%)	1 (0.3%)	\$9,408,997
Nodouble (1972)	Noholme II	Abla-Jay	234	6,141	26.24	189 (81%)	32.49	150 (64%)	40 (17%)	12 (5.1%)	2 (0.9%)	\$11,972,013
Exclusive Native (1970)	Raise a Native	Exclusive	314	4,318	13.75	223 (71%)	19.36	182 (58%)	40 (13%)	14 (4.5%)	6 (1.9%)	\$13,388,945
Sir Ivor (1970)	Sir Gaylord	Attica	274	2,353	8.59	155 (57%)	15.18	108 (39%)	40 (15%)	21 (7.7%)	7 (2.6%)	\$7,913,466
Grey Dawn II (1968)	Herbager	Polamia	297	5,985	20.15	221 (74%)	27.08	175 (59%)	38 (13%)	18 (6.1%)	7 (2.4%)	\$11,927,434
What a Pleasure (1970)	Bold Ruler	Grey Flight	323	4,813	14.90	223 (69%)	21.58	150 (46%)	38 (12%)	12 (3.7%)	5 (1.5%)	\$9,635,925
Raise a Native (1965)	Native Dancer	Raise You	347	2,926	8.43	191 (55%)	15.32	144 (41%)	38 (11%)	14 (4%)	3 (0.9%)	\$7,538,051
Never Bend (1965)	Nasrullah	Lalun	238	2,620	11.01	141 (59%)	18.58	111 (47%)	35 (15%)	7 (2.9%)	2 (0.8%)	\$6,384,584
Lt. Stevens (1968)	Nantallah	Rough Shod II	260	5,927	22.80	196 (75%)	30.24	164 (63%)	34 (13%)	6 (2.3%)	1 (0.4%)	\$8,803,604
Dr. Fager (1969)	Rough'n Tumble	Aspidistra	252	4,233	16.80	176 (70%)	24.05	135 (54%)	34 (13%)	12 (4.8%)	3 (1.2%)	\$9,029,085
Vaguely Noble (1970)	Vienna (GB)	Noble Lassie	347	1,908	5.50	147 (42%)	12.98	85 (24%)	34 (10%)	23 (6.6%)	10 (2.9%)	\$8,723,059
Mr. Leader (1972)	Hail to Reason	Jolie Deja	278	7,561	27.20	232 (83%)	32.59	197 (71%)	33 (12%)	12 (4.3%)	2 (0.7%)	\$13,763,533
Al Hattab (1973)	The Axe II	Abyssinia II	236	6,192	26.24	194 (82%)	31.92	157 (67%)	33 (14%)	11 (4.7%)	3 (1.3%)	\$9,809,111
Mr. Prospector (1976)	Raise a Native	Gold Digger	159	2,878	18.10	134 (84%)	21.48	117 (74%)	33 (21%)	11 (6.9%)	4 (2.5%)	\$8,926,960
Roberto (1975)	Hail to Reason	Bramalea	137	2,399	17.51	107 (78%)	22.42	79 (58%)	33 (24%)	16 (11.7%)	2 (1.5%)	\$6,638,758
Drone (1971)	Sir Gaylord	Cap and Bells	282	4,112	14.58	197 (70%)	20.87	149 (53%)	32 (11%)	15 (5.3%)	4 (1.4%)	\$7,949,056
Graustark (1967)	Ribot	Flower Bowl	290	3,413	11.77	174 (60%)	19.61	130 (45%)	32 (11%)	17 (5.9%)	6 (2.1%)	\$7,836,189
Round Table (1961)	Princequillo	Knight's Daughter	174	1,941	11.16	109 (63%)	17.81	77 (44%)	32 (18%)	17 (9.8%)	5 (2.9%)	\$5,823,310
Bold Bidder (1967)	Bold Ruler	High Bid	316	3,518	11.13	209 (66%)	16.83	135 (43%)	31 (10%)	16 (5.1%)	2 (0.6%)	\$9,647,333
Buckpasser (1969)	Tom Fool	Busanda	287	2,949	10.28	170 (59%)	17.35	124 (43%)	31 (11%)	18 (6.3%)	7 (2.4%)	\$10,103,423
Verbatim (1972)	Speak John	Well Kept	220	6,522	29.65	186 (85%)	35.06	154 (70%)	30 (14%)	10 (4.5%)	1 (0.5%)	\$9,293,237
Gallant Romeo (1968)	Gallant Man	Juliets Nurse	280	5,907	21.10	201 (72%)	29.39	166 (59%)	30 (11%)	6 (2.1%)	1 (0.4%)	\$8,493,951
Ack Ack (1973)	Battle Joined	Fast Turn	209	3,954	18.92	168 (80%)	23.54	124 (59%)	30 (14%)	16 (7.7%)	6 (2.9%)	\$10,201,614
Starts/Foal norms for all sires of G1 SW for 70-79					19.32							

Stallion (FCY)	2yo Starters	2yo Starts	2yo Strts/Str	3yo Starters	3yo Starts	3yo Strts/Str	4yo+ Starters	4yo+ Starts	4yo+ Strts/Str	Avg Yrs Raced	AWD	SW AWD	GSW AWD
Sires of G1 Stakes Winners													
Terrible Tiger (1972)	57	297	5.21	95	1,168	12.29	76	2,590	34.08	3.82	6.84	8.16	9.29
Spring Double (1971)	62	308	4.97	122	1,580	12.95	127	4,886	38.47	3.83	7.64	11.57	7.25
Ole Bob Bowers (1972)	38	177	4.66	77	976	12.68	73	2,651	36.32	3.87	6.74	9.92	10.93
Northern Jove (1975)	63	287	4.56	86	1,055	12.27	71	2,181	30.72	3.64	6.45	6.80	8.00
Judgable (1973)	56	385	6.88	83	1,110	13.37	71	2,371	33.39	3.53	6.87	8.38	9.67
Naskra (1974)	78	355	4.55	127	1,373	10.81	105	3,544	33.75	3.59	7.69	8.12	9.20
Staff Writer (1973)	70	456	6.51	101	1,201	11.89	87	2,782	31.98	3.50	6.64	7.69	9.25
Lanyon (1974)	87	492	5.66	101	1,068	10.57	81	2,798	34.54	3.79	5.69	6.07	8.50
Protanto (1973)	24	146	6.08	51	553	10.84	42	1,655	39.40	3.41	7.44	12.21	14.00
Dust Commander (1972)	18	119	6.61	48	608	12.67	46	1,316	28.61	3.35	7.11	7.80	7.91
Poppy Jay (1966)	30	172	5.73	49	678	13.84	52	1,919	36.90	3.57	6.82	7.47	8.25
Verbatim (1972)	110	601	5.46	165	1,879	11.39	134	4,042	30.16	3.60	7.38	8.21	9.69
Court Ruling (1976)	32	169	5.28	51	556	10.90	49	1,353	27.61	3.83	7.05	7.89	7.00
Berkley Prince (1973)	13	62	4.77	40	385	9.63	37	1,094	29.57	3.28	6.95	8.55	8.88
Northern Answer (1971)	67	419	6.25	96	1,105	11.51	109	3,317	30.43	3.41	6.23	7.54	7.50
Our Michael (1970)	86	574	6.67	133	1,569	11.80	129	3,304	25.61	3.59	6.65	6.87	7.67
Triple Bend (1974)	56	245	4.38	100	1,087	10.87	80	2,488	31.10	3.25	7.18	7.57	7.50
Advocator (1970)	68	306	4.50	124	1,349	10.88	139	4,401	31.66	3.66	7.54	8.30	9.06
Distinctive (1972)	109	550	5.05	150	1,657	11.05	118	3,364	28.51	3.20	6.31	7.00	8.25
Navajo (1977)	42	234	5.57	55	589	10.71	43	1,152	26.79	3.43	7.48	8.77	11.00
Cahasa (1974)	29	123	4.24	46	475	10.33	38	1,096	28.84	3.19	6.38	7.50	10.00
Hail the Pirates (1978)	25	135	5.40	42	440	10.48	36	952	26.44	3.24	7.88	9.20	10.36
Dewan (1972)	87	442	5.08	158	1,621	10.26	143	4,743	33.17	3.45	7.09	7.96	8.42
Mr. Leader (1972)	125	630	5.04	207	2,308	11.15	174	4,623	26.57	3.45	7.45	8.38	8.97
Vice Regent (1973)	78	504	6.46	121	1,266	10.46	86	2,347	27.29	3.21	6.84	7.67	8.25
Better Bee (1963)	46	269	5.85	68	893	13.13	71	2,143	30.18	3.16	7.22	7.06	8.75
Exploident (1975)	74	397	5.36	103	1,073	10.42	77	2,048	26.60	3.44	6.80	7.81	8.45
Top Sires of G1 Stakes Winners by Total Stakes Winners, 1970-1979													
Northern Dancer (1966)	65	255	3.92	141	1,084	7.69	118	2,045	17.33	2.36	7.62	8.92	9.44
Nijinsky II (1972)	54	165	3.06	130	835	6.42	114	1,251	10.97	2.24	8.82	10.16	10.68
In Reality (1970)	83	320	3.86	150	1,092	7.28	122	2,546	20.87	2.83	6.67	7.44	8.34
Hoist the Flag (1973)	65	244	3.75	139	969	6.97	105	1,431	13.63	2.48	7.41	8.91	10.06
Damascus (1970)	89	294	3.30	174	1,179	6.78	150	2,048	13.65	2.47	7.32	8.01	8.82
Olden Times (1966)	98	435	4.44	172	1,608	9.35	173	3,863	22.33	3.03	6.65	7.11	7.50
Nodouble (1972)	96	476	4.96	160	1,644	10.28	146	4,021	27.54	3.43	7.39	8.50	9.15
Exclusive Native (1970)	91	347	3.81	169	1,313	7.77	147	2,658	18.08	2.56	7.14	7.98	9.02
Sir Ivor (1970)	46	156	3.39	116	841	7.25	93	1,356	14.58	2.18	8.03	8.82	8.95
Grey Dawn II (1968)	112	477	4.26	168	1,621	9.65	152	3,887	25.57	2.94	7.64	8.57	8.76
What a Pleasure (1970)	91	329	3.62	168	1,462	8.70	140	3,022	21.59	2.61	6.53	7.27	7.81
Raise a Native (1965)	57	193	3.39	154	1,041	6.76	118	1,692	14.34	2.27	6.65	7.13	7.79
Never Bend (1965)	55	202	3.67	103	714	6.93	91	1,704	18.73	2.43	7.10	7.96	7.75
Lt. Stevens (1968)	88	420	4.77	154	1,529	9.93	140	3,978	28.41	3.32	7.15	8.04	8.25
Dr. Fager (1969)	86	275	3.20	134	1,104	8.24	122	2,854	23.39	2.91	6.85	7.62	7.98
Vaguely Noble (1970)	28	66	2.36	95	504	5.31	107	1,338	12.50	2.29	8.73	10.95	11.44
Mr. Leader (1972)	125	630	5.04	207	2,308	11.15	174	4,623	26.57	3.45	7.45	8.38	8.97
Al Hattab (1973)	118	646	5.47	180	1,945	10.81	133	3,601	27.08	3.26	7.04	7.54	8.18
Mr. Prospector (1976)	83	375	4.52	120	1,030	8.58	83	1,473	17.75	2.78	6.55	7.05	8.11
Roberto (1975)	64	243	3.80	86	748	8.70	65	1,408	21.66	2.86	8.08	9.10	9.64
Drone (1971)	85	343	4.04	159	1,183	7.44	128	2,586	20.20	2.81	6.96	7.61	8.23
Graustark (1967)	61	182	2.98	138	1,114	8.07	123	2,117	17.21	2.55	7.61	9.71	10.63
Round Table (1961)	37	120	3.24	74	472	6.38	71	1,349	19.00	2.54	8.20	8.82	9.21
Bold Bidder (1967)	78	270	3.46	147	991	6.74	126	2,257	17.91	2.42	7.46	8.42	8.63
Buckpasser (1969)	61	239	3.92	128	944	7.38	115	1,766	15.36	2.36	7.72	8.78	9.65
Verbatim (1972)	110	601	5.46	165	1,879	11.39	134	4,042	30.16	3.60	7.38	8.21	9.69
Gallant Romeo (1968)	75	316	4.21	162	1,549	9.56	150	4,042	26.95	3.21	6.68	6.85	8.16
Ack Ack (1973)	69	233	3.38	144	1,199	8.33	109	2,522	23.14	3.00	7.32	8.80	9.52

Stallion (FCY)	Sire	Dam	Named Foals R.A.	Starts	Starts /Foal	Starters (% FIs)	Starts/ Strter	Wnrs (% FIs)	SW (% FIs)	GSW (% FIs)	G1SW (% FIs)	Earnings
Top Sires of G1 Stakes Winners by Starts/Foal, 1980-1989												
Morning Bob (1987)	Blushing Groom (FR)	Guillotine Miss	89	3,225	36.24	80 (90%)	40.31	64 (72%)	9 (10%)	2 (2.2%)	1 (1.1%)	\$4,690,021
It's Freezing (1980)	T. V. Commercial	Articana	365	13,169	36.08	339 (93%)	38.85	307 (84%)	33 (9%)	6 (1.6%)	1 (0.3%)	\$24,227,636
Don Rickles (1986)	Iccapade	I Got My Reasons	48	1,587	33.06	40 (83%)	39.68	35 (73%)	2 (4%)	1 (2.1%)	1 (2.1%)	\$1,788,369
Sunny North (1983)	Northern Dancer	Sun Reality	183	6,043	33.02	163 (89%)	37.07	145 (79%)	12 (7%)	4 (2.2%)	2 (1.1%)	\$8,822,762
Compliance (1984)	Northern Dancer	Sex Appeal	140	4,517	32.26	124 (89%)	36.43	93 (66%)	8 (6%)	4 (2.9%)	2 (1.4%)	\$8,244,766
Maudlin (1985)	Foolish Pleasure	Zonta	85	2,642	31.08	78 (92%)	33.87	61 (72%)	8 (9%)	3 (3.5%)	2 (2.4%)	\$4,958,747
Hurry Up Blue (1983)	Mr. Leader	Blue Baroness	82	2,520	30.73	71 (87%)	35.49	49 (60%)	2 (2%)	1 (1.2%)	1 (1.2%)	\$3,476,361
Proud Birdie (1980)	Proud Clarion	Bernie Bird	268	7,978	29.77	232 (87%)	34.39	185 (69%)	16 (6%)	5 (1.9%)	2 (0.7%)	\$10,454,584
Rollicking (1974)	Rambunctious	Martinetta	268	7,979	29.77	244 (91%)	32.7	212 (79%)	21 (8%)	4 (1.5%)	1 (0.4%)	\$11,179,672
Explosive Bid (1986)	Explodent	Golden Way	138	4,055	29.38	120 (87%)	33.79	99 (72%)	7 (5%)	3 (2.2%)	1 (0.7%)	\$6,521,415
Tri Jet (1977)	Jester	Haze	419	12,267	29.28	379 (90%)	32.37	309 (74%)	39 (9%)	10 (2.4%)	3 (0.7%)	\$21,660,177
At the Threshold (1986)	Norcliffe	Winver	142	4,141	29.16	126 (89%)	32.87	100 (70%)	6 (4%)	1 (0.7%)	1 (0.7%)	\$6,539,083
Ten Gold Pots (1988)	Tentam	Pot of Gold	57	1,659	29.11	51 (89%)	32.53	43 (75%)	w5 (9%)	1 (1.8%)	1 (1.8%)	\$2,462,669
Iron Constitution (1980)	Iron Ruler	Water Cress	268	7,677	28.65	233 (87%)	32.95	192 (72%)	9 (3%)	1 (0.4%)	1 (0.4%)	\$8,445,769
Honey Jay (1975)	Double Jay	Roman Honey	229	6,511	28.43	198 (86%)	32.88	158 (69%)	30 (13%)	2 (0.9%)	1 (0.4%)	\$7,481,646
Strike the Anvil (1980)	Bolinas Boy	I'm Lisa	254	7,199	28.34	218 (86%)	33.02	178 (70%)	11 (4%)	2 (0.8%)	1 (0.4%)	\$6,036,488
Nasty and Bold (1981)	Naskra	College Bold	332	9,372	28.23	286 (86%)	32.77	235 (71%)	29 (9%)	4 (1.2%)	2 (0.6%)	\$16,091,166
Bold Ruckus (1982)	Boldnesian	Raise a Ruckus	287	8,101	28.23	255 (89%)	31.77	212 (74%)	33 (11%)	5 (1.7%)	1 (0.3%)	\$18,969,092
Golden Act (1982)	Gummo	Golden Shore	269	7,567	28.13	239 (89%)	31.66	186 (69%)	28 (10%)	8 (3%)	2 (0.7%)	\$11,275,196
Hold Your Peace (1975)	Speak John	Blue Moon	350	9,828	28.08	306 (87%)	32.12	256 (73%)	33 (9%)	10 (2.9%)	4 (1.1%)	\$15,617,773
Mr. Redoy (1981)	Grey Dawn II	Near Gold	303	8,462	27.93	265 (87%)	31.93	201 (66%)	20 (7%)	3 (1%)	1 (0.3%)	\$9,795,092
Upper Case (1974)	Round Table	Bold Experience	245	6,830	27.88	211 (86%)	32.37	158 (64%)	7 (3%)	2 (0.8%)	1 (0.4%)	\$6,575,621
Tunerup (1983)	The Pruner	Our Girl	241	6,679	27.71	217 (90%)	30.78	177 (73%)	16 (7%)	5 (2.1%)	1 (0.4%)	\$8,442,055
Overskate (1982)	Nodouble	Overstate	220	6,069	27.59	185 (84%)	32.81	147 (67%)	11 (5%)	4 (1.8%)	1 (0.5%)	\$8,971,359
Medieval Man (1980)	Noholme II	Peaceful Sky	346	9,513	27.49	293 (85%)	32.47	241 (70%)	29 (8%)	4 (1.2%)	1 (0.3%)	\$10,832,040
Aly North (1986)	Alydar	Alma North	50	1,370	27.40	42 (84%)	32.62	30 (60%)	3 (6%)	2 (4%)	1 (2%)	\$1,604,853
That's a Nice (1981)	Hey Good Lookin	Our Bonnie S.	210	5,741	27.34	180 (86%)	31.89	144 (69%)	16 (8%)	2 (1%)	1 (0.5%)	\$7,701,693
Baldski (1981)	Nijinsky II	Too Bald	401	10,959	27.33	368 (92%)	29.78	300 (75%)	34 (8%)	10 (2.5%)	1 (0.2%)	\$18,344,170
Naskra (1974)	Nasram	Iskra	427	11,665	27.32	380 (89%)	30.7	299 (70%)	44 (10%)	15 (3.5%)	5 (1.2%)	\$22,868,318
Starts/Foals norm for all sires of GI SWs for 80-89					19.00							
Top Sires of G1 Stakes Winners by Total Stakes Winners, 1980-1989												
Mr. Prospector (1976)	Raise a Native	Gold Digger	518	5,482	10.58	424 (82%)	12.93	330 (64%)	88 (17%)	61 (11.8%)	27 (5.2%)	\$42,560,540
Danzig (1982)	Northern Dancer	Pas de Nom	380	4,220	11.11	305 (80%)	13.84	251 (66%)	85 (22%)	45 (11.8%)	24 (6.3%)	\$40,529,181
Nijinsky II (1972)	Northern Dancer	Flaming Page	454	3,933	8.66	338 (74%)	11.64	242 (53%)	82 (18%)	56 (12.3%)	19 (4.2%)	\$31,720,360
Blushing Groom (FR) (1979)	Red God	Runaway Bride (GB)	424	4,357	10.28	311 (73%)	14.01	216 (51%)	69 (16%)	45 (10.6%)	17 (4%)	\$24,504,038
Alleged (1980)	Hoist the Flag	Princess Pout	506	5,017	9.92	359 (71%)	13.97	244 (48%)	61 (12%)	39 (7.7%)	12 (2.4%)	\$18,485,819
Nureyev (1981)	Northern Dancer	Special	261	2,576	9.87	222 (85%)	11.60	173 (66%)	61 (23%)	32 (12.3%)	11 (4.2%)	\$18,521,707
Riverman (1974)	Never Bend	River Lady	450	5,635	12.52	352 (78%)	16.01	234 (52%)	60 (13%)	35 (7.8%)	13 (2.9%)	\$21,388,749
Alydar (1981)	Raise a Native	Sweet Tooth	515	5,819	11.30	389 (76%)	14.96	281 (55%)	59 (11%)	40 (7.8%)	20 (3.9%)	\$47,858,672
Seattle Slew (1980)	Bold Reasoning	My Charmer	428	3,954	9.24	309 (72%)	12.80	221 (52%)	59 (14%)	35 (8.2%)	18 (4.2%)	\$32,744,174
Northern Dancer (1966)	Nearctic	Natalma	236	1,459	6.18	153 (65%)	9.54	112 (47%)	57 (24%)	37 (15.7%)	13 (5.5%)	\$10,183,354
Relaunch (1982)	In Reality	Foggy Note	322	5,979	18.57	268 (83%)	22.31	219 (68%)	54 (17%)	13 (4%)	5 (1.6%)	\$25,507,397
Vice Regent (1973)	Northern Dancer	Victoria Regina	353	6,963	19.73	288 (82%)	24.18	233 (66%)	53 (15%)	8 (2.3%)	1 (0.3%)	\$26,305,163
Lyphard (1974)	Northern Dancer	Goofed	405	4,123	10.18	285 (70%)	14.47	195 (48%)	53 (13%)	30 (7.4%)	12 (3%)	\$22,136,540
Nodouble (1972)	Noholme II	Abla-Jay	389	9,172	23.58	336 (86%)	27.30	257 (66%)	51 (13%)	16 (4.1%)	3 (0.8%)	\$20,525,364
Topsider (1981)	Northern Dancer	Drumtop	344	7,135	20.74	296 (86%)	24.10	253 (74%)	51 (15%)	25 (7.3%)	6 (1.7%)	\$21,907,560
Roberto (1975)	Hail to Reason	Bramalea	357	4,556	12.76	306 (86%)	14.89	218 (61%)	49 (14%)	25 (7%)	8 (2.2%)	\$18,911,399
Iccapade (1975)	Nearctic	Shenanigans	410	9,914	24.18	357 (87%)	27.77	274 (67%)	48 (12%)	12 (2.9%)	3 (0.7%)	\$22,589,131
Caro (IRE) (1973)	Fortino II (FR)	Chambord	359	4,797	13.36	273 (76%)	17.57	198 (55%)	46 (13%)	22 (6.1%)	12 (3.3%)	\$24,354,088
The Minstrel (1979)	Northern Dancer	Fleur	381	4,570	11.99	283 (74%)	16.15	196 (51%)	46 (12%)	28 (7.3%)	11 (2.9%)	\$13,558,593
Valid Appeal (1978)	In Reality	Desert Trial	384	8,736	22.75	311 (81%)	28.09	268 (70%)	45 (12%)	8 (2.1%)	3 (0.8%)	\$19,371,450
Affirmed (1981)	Exclusive Native	Won't Tell You	339	5,227	15.42	265 (78%)	19.72	200 (59%)	45 (13%)	22 (6.5%)	8 (2.4%)	\$19,529,807
Majestic Light (1979)	Majestic Prince	Irradiate	448	6,385	14.25	352 (79%)	18.14	245 (55%)	45 (10%)	29 (6.5%)	11 (2.5%)	\$20,640,572
Naskra (1974)	Nasram	Iskra	427	11,665	27.32	380 (89%)	30.70	299 (70%)	44 (10%)	15 (3.5%)	5 (1.2%)	\$22,868,318
Fappiano (1983)	Mr. Prospector	Killaloe	299	4,506	15.07	249 (83%)	18.10	194 (65%)	43 (14%)	23 (7.7%)	13 (4.3%)	\$31,968,048
Sharpen Up (GB) (1974)	Atan	Rocchetta (GB)	341	4,512	13.23	262 (77%)	17.22	185 (54%)	43 (13%)	15 (4.4%)	8 (2.3%)	\$13,552,479
Miswaki (1983)	Mr. Prospector	Hopespringseternal	351	5,228	14.89	286 (81%)	18.28	212 (60%)	42 (12%)	14 (4%)	3 (0.9%)	\$17,139,249
Mr. Leader (1972)	Hail to Reason	Jolie Deja	486	11,614	23.90	433 (89%)	26.82	325 (67%)	41 (8%)	9 (1.9%)	3 (0.6%)	\$21,084,600
Sovereign Dancer (1981)	Northern Dancer	Bold Princess	358	8,115	22.67	305 (85%)	26.61	246 (69%)	41 (11%)	15 (4.2%)	3 (0.8%)	\$25,132,061
Starts/Foals norm for all sires of GI SWs for 80-89					19.00							

Stallion (FCY)	2yo Starters	2yo Starts	2yo Strts/Str	3yo Starters	3yo Starts	3yo Strts/Str	4yo+ Starters	4yo+ Starts	4yo+ Strts/Str	Avg Yrs Raced	AWD	SW AWD	GSW AWD
Top Sires of G1 Stakes Winners by Starts/Foal, 1980-1989													
Morning Bob (1987)	60	335	5.58	74	878	11.86	59	2,012	34.1	3.9	7.92	9.8	10.4
It's Freezing (1980)	199	850	4.27	313	3,094	9.88	285	9,225	32.37	4.1	6.92	7.4	7.8
Don Rickles (1986)	23	106	4.61	39	516	13.23	33	965	29.24	3.8	6.85	8.1	8.0
Sunny North (1983)	117	669	5.72	150	1,691	11.27	127	3,683	29	3.8	6.41	7.9	8.5
Compliance (1984)	71	350	4.93	110	1,208	10.98	98	2,959	30.19	3.7	7.17	8.9	9.2
Maudlin (1985)	60	362	6.03	70	808	11.54	56	1,472	26.29	3.4	6.96	8.3	8.5
Hurry Up Blue (1983)	41	229	5.59	67	739	11.03	50	1,552	31.04	3.4	7.61	8.8	11.5
Proud Birdie (1980)	151	872	5.77	214	2,402	11.22	174	4,704	27.03	3.4	7.37	7.6	8.1
Rollicking (1974)	160	719	4.49	225	2,269	10.08	178	4,991	28.04	3.5	6.39	6.7	7.6
Explosive Bid (1986)	89	494	5.55	110	1,181	10.74	87	2,380	27.36	3.6	6.8	8.7	9.1
Tri Jet (1977)	282	1501	5.32	348	3,588	10.31	264	7,178	27.19	3.5	6.99	7.4	8.3
At the Threshold (1986)	79	342	4.33	117	1,250	10.68	92	2,549	27.71	3.5	7	7.8	9.2
Ten Gold Pots (1988)	31	151	4.87	50	536	10.72	38	972	25.58	3.7	7.4	9.8	10.0
Iron Constitution (1980)	110	445	4.05	205	2,046	9.98	180	5,186	28.81	3.3	6.49	7.1	6.0
Honey Jay (1975)	132	675	5.11	182	1,927	10.59	150	3,909	26.06	3.5	6.7	7.4	9.0
Strike the Anvil (1980)	118	547	4.64	181	1,926	10.64	157	4,726	30.1	3.4	6.71	7.1	7.8
Nasty and Bold (1981)	140	551	3.94	265	2,593	9.78	219	6,228	28.44	3.5	6.85	7.3	8.6
Bold Ruckus (1982)	156	755	4.84	242	2,437	10.07	188	4,909	26.11	3.5	6.27	6.8	8.0
Golden Act (1982)	134	609	4.54	218	2,120	9.72	175	4,838	27.65	3.5	8.1	8.8	8.5
Hold Your Peace (1975)	213	1020	4.79	280	3,080	11	233	5,728	24.58	3.5	7.17	7.6	8.3
Mr. Redoy (1981)	161	710	4.41	248	2,422	9.77	190	5,330	28.05	3.5	7.21	7.7	9.7
Upper Case (1974)	141	818	5.8	185	2,117	11.44	147	3,895	26.5	3.2	6.94	8.3	10.5
Tunerup (1983)	151	852	5.64	199	2,227	11.19	157	3,600	22.93	3.2	7.07	6.8	6.7
Overskate (1982)	95	392	4.13	165	1,637	9.92	146	4,040	27.67	3.5	7.34	7.6	8.7
Medieval Man (1980)	193	991	5.13	270	2,954	10.94	227	5,568	24.53	3.5	6.47	6.4	7.4
Aly North (1986)	20	104	5.2	34	357	10.5	32	909	28.41	3.2	7.41	8.7	9.2
That's a Nice (1981)	101	369	3.65	171	1,539	9	134	3,833	28.6	3.7	7.14	8.2	9.6
Baldski (1981)	262	1385	5.29	337	3,553	10.54	267	6,021	22.55	3.3	7.03	7.7	7.4
Naskra (1974)	197	742	3.77	348	3,299	9.48	286	7,624	26.66	3.4	7.67	8.4	9.0
Top Sires of G1 Stakes Winners by Total Stakes Winners, 1980-1989													
Mr. Prospector (1976)	197	581	2.95	379	2,323	6.13	238	2,578	10.83	2.30	7.21	7.8	7.99
Danzig (1982)	157	545	3.47	274	1,665	6.08	167	2,010	12.04	2.40	7.47	7.9	8.11
Nijinsky II (1972)	141	387	2.74	297	1,543	5.20	198	2,003	10.12	2.40	9.18	9.67	9.73
Blushing Groom (FR) (1979)	133	353	2.65	266	1,403	5.27	198	2,601	13.14	2.60	8.28	8.69	9.17
Alleged (1980)	101	220	2.18	309	1,548	5.01	229	3,249	14.19	2.70	10.43	11.34	11.45
Nureyev (1981)	107	256	2.39	205	1,073	5.23	113	1,247	11.04	2.40	8.66	8.02	7.99
Riverman (1974)	134	345	2.57	285	1,575	5.53	237	3,715	15.68	2.90	8.95	9.13	9.80
Alydar (1981)	185	546	2.95	337	2,230	6.62	232	3,043	13.12	2.50	7.83	8.54	8.96
Seattle Slew (1980)	161	494	3.07	272	1,611	5.92	175	1,849	10.57	2.40	7.79	8.74	8.64
Northern Dancer (1966)	61	151	2.48	121	586	4.84	90	722	8.02	2.10	8.96	10.37	11.08
Relaunch (1982)	120	486	4.05	233	1,656	7.11	199	3,837	19.28	3.20	6.91	7.63	8.63
Vice Regent (1973)	157	547	3.48	264	2,192	8.30	202	4,224	20.91	3.10	7.13	7.96	8.37
Lyphard (1974)	122	306	2.51	240	1,310	5.46	173	2,507	14.49	2.50	9.72	9.13	9.52
Nodouble (1972)	128	470	3.67	306	2,344	7.66	254	6,358	25.03	3.40	8.10	9.48	9.33
Topsider (1981)	137	515	3.76	266	1,955	7.35	215	4,665	21.70	3.20	7.90	8.11	8.54
Roberto (1975)	149	441	2.96	261	1,627	6.23	196	2,488	12.69	2.70	9.62	10.06	9.93
Icecapade (1975)	199	825	4.15	320	2,821	8.82	256	6,268	24.48	3.30	7.29	8.2	8.82
Caro (IRE) (1973)	108	306	2.83	234	1,565	6.69	184	2,926	15.90	2.80	8.16	8.91	9.48
The Minstrel (1979)	136	402	2.96	243	1,418	5.84	182	2,750	15.11	2.80	8.80	8.68	8.68
Valid Appeal (1978)	176	767	4.36	272	2,343	8.61	233	5,626	24.15	3.30	6.48	6.81	7.74
Affirmed (1981)	124	418	3.37	234	1,695	7.24	195	3,114	15.97	3.00	8.12	8.78	8.97
Majestic Light (1979)	164	532	3.24	308	2,246	7.29	229	3,607	15.75	2.70	7.90	8.62	9.18
Naskra (1974)	197	742	3.77	348	3,299	9.48	286	7,624	26.66	3.40	7.67	8.39	9.01
Fappiano (1983)	145	458	3.16	230	1,624	7.06	168	2,424	14.43	2.70	7.48	7.9	8.44
Sharpen Up (GB) (1974)	117	290	2.48	222	1,284	5.78	175	2,938	16.79	2.90	8.19	8.34	9.17
Miswaki (1983)	151	513	3.40	262	1,836	7.01	183	2,879	15.73	2.80	7.07	7.76	8.61
Mr. Leader (1972)	223	870	3.90	398	3,558	8.94	326	7,186	22.04	3.20	7.61	8.28	8.97
Sovereign Dancer (1981)	163	675	4.14	278	2,407	8.66	216	5,033	23.30	3.30	7.31	8.09	8.66

Stallion (FCY)	Sire	Dam	Named Foals R.A.	Starts	Starts /Foal	Starters (% FIs)	Starts/ Strter	Wnrs (% FIs)	SW (% FIs)	GSW (% FIs)	G1SW (% FIs)	Earnings
Top Sires of G1 Stakes Winners by Starts/Foal, 1990-1999												
Ward Off Trouble (1989)	Wardlaw	Reasonable Miss	42	1,255	29.88	36 (86%)	34.86	33 (79%)	2 (5%)	2 (4.8%)	1 (2.4%)	\$2,166,901
Prosperous (1987)	Mr. Prospector	Sadie Mae	58	1,671	28.81	46 (79%)	36.33	35 (60%)	1 (2%)	1 (1.7%)	1 (1.7%)	\$2,672,297
Line In The Sand (1995)	Mr. Prospector	Really Lucky	256	7,260	28.36	226 (88%)	32.12	183 (71%)	11 (4%)	3 (1.2%)	1 (0.4%)	\$12,784,572
Gold Alert (1989)	Mr. Prospector	Croquis	277	7,838	28.30	242 (87%)	32.39	206 (74%)	15 (5%)	6 (2.2%)	3 (1.1%)	\$15,806,710
Fortunate Prospect (1988)	Northern Prospect	Fortunate Bid	477	13,285	27.85	425 (89%)	31.26	361 (76%)	20 (4%)	8 (1.7%)	2 (0.4%)	\$28,849,929
Sir Leon (1992)	Private Account	Oh So Sweet II	84	2,327	27.70	69 (82%)	33.72	57 (68%)	2 (2%)	1 (1.2%)	1 (1.2%)	\$6,032,030
Judge T C (1998)	Judge Smells	I'm Pretty	140	3,790	27.07	126 (90%)	30.08	105 (75%)	11 (8%)	7 (5%)	3 (2.1%)	\$11,066,951
Valid Wager (1998)	Valid Appeal	Bid Gal	94	2,525	26.86	83 (88%)	30.42	77 (82%)	4 (4%)	2 (2.1%)	2 (2.1%)	\$7,552,755
Eskimo (1987)	Northern Dancer	Dr. Mary Lou	209	5,543	26.52	181 (87%)	30.62	142 (68%)	10 (5%)	3 (1.4%)	1 (0.5%)	\$9,524,526
Baldski (1981)	Nijinsky II	Too Bald	152	4,025	26.48	139 (91%)	28.96	114 (75%)	14 (9%)	5 (3.3%)	2 (1.3%)	\$8,952,575
Personal Flag (1987)	Private Account	Grecian Banner	400	10,573	26.43	350 (88%)	30.21	283 (71%)	33 (8%)	9 (2.3%)	1 (0.3%)	\$28,101,766
Vermont (1995)	Chief's Crown	High Schemes	62	1,631	26.31	52 (84%)	31.37	46 (74%)	3 (5%)	1 (1.6%)	1 (1.6%)	\$3,447,595
Regal Classic (1991)	Vice Regent	No Class	411	10,807	26.29	364 (89%)	29.69	303 (74%)	38 (9%)	6 (1.5%)	1 (0.2%)	\$32,534,322
Caveat (1985)	Cannonade	Cold Hearted	223	5,846	26.22	196 (88%)	29.83	163 (73%)	19 (9%)	6 (2.7%)	2 (0.9%)	\$15,757,674
Skip Trial (1989)	Bailjumper	Looks Promising	276	7,123	25.81	252 (91%)	28.27	225 (82%)	21 (8%)	6 (2.2%)	1 (0.4%)	\$27,229,494
End Sweep (1996)	Forty Niner	Broom Dance	297	7,509	25.28	262 (88%)	28.66	228 (77%)	24 (8%)	6 (2%)	5 (1.7%)	\$33,024,931
Alaskan Frost (1994)	Copelan	Fleur de Nord	157	3,967	25.27	131 (83%)	30.28	106 (68%)	8 (5%)	1 (0.6%)	1 (0.6%)	\$8,223,100
Buckaroo (1981)	Buckpasser	Stepping High	259	6,490	25.06	216 (83%)	30.05	173 (67%)	13 (5%)	3 (1.2%)	1 (0.4%)	\$12,879,245
Irish Tower (1983)	Irish Castle	Royal Loom	287	7,185	25.03	250 (87%)	28.74	199 (69%)	13 (5%)	4 (1.4%)	1 (0.3%)	\$14,467,331
Beau Genius (1992)	Bold Ruckus	Royal Colleen	408	10,196	24.99	350 (86%)	29.13	287 (70%)	27 (7%)	4 (1%)	1 (0.2%)	\$24,923,482
Rizzi (1997)	Aftee	Top Wish	124	3,077	24.81	106 (86%)	29.03	92 (74%)	12 (10%)	3 (2.4%)	1 (0.8%)	\$10,053,026
High Brite (1990)	Best Turn	Spray	501	12,427	24.80	417 (83%)	29.8	353 (70%)	35 (7%)	6 (1.2%)	1 (0.2%)	\$23,493,785
Maudlin (1985)	Foolish Pleasure	Zonta	212	5,194	24.50	186 (88%)	27.92	162 (76%)	16 (8%)	7 (3.3%)	2 (0.9%)	\$16,455,869
Poles Apart (1988)	Danzig	Family Planning	107	2,609	24.38	90 (84%)	28.99	67 (63%)	1 (1%)	1 (0.9%)	1 (0.9%)	\$3,511,062
Allen's Prospect (1988)	Mr. Prospector	Change Water	620	15,093	24.34	558 (90%)	27.05	481 (78%)	50 (8%)	4 (0.6%)	2 (0.3%)	\$36,577,900
Colony Light (1994)	Pleasant Colony	Great Light	119	2,871	24.13	102 (86%)	28.15	87 (73%)	6 (5%)	3 (2.5%)	2 (1.7%)	\$5,626,357
Sea Salute (1998)	Danzig	Glowing Honor	62	1,494	24.10	53 (86%)	28.19	44 (71%)	5 (8%)	1 (1.6%)	1 (1.6%)	\$3,762,516
Fit to Fight (1986)	Chieftain	Hasty Queen II	457	10,973	24.01	403 (88%)	27.23	315 (69%)	23 (5%)	11 (2.4%)	2 (0.4%)	\$22,210,309
Starts/Foal norms for all sires of GI SW for 90-99					17.68							
Top Sires of G1 Stakes Winners by Total Stakes Winners, 1990-1999												
Storm Cat (1989)	Storm Bird	Terlingua	640	6,249	9.76	515 (81%)	12.13	381 (60%)	94 (15%)	60 (9.4%)	19 (3%)	\$66,307,848
Danzig (1982)	Northern Dancer	Pas de Nom	482	4,815	9.99	380 (79%)	12.67	301 (62%)	85 (18%)	52 (10.8%)	19 (3.9%)	\$52,460,739
Broad Brush (1989)	Ack Ack	Hay Patcher	458	8,486	18.53	398 (87%)	21.32	337 (74%)	76 (17%)	32 (7%)	8 (1.7%)	\$55,519,162
Woodman (1988)	Mr. Prospector	Playmate	913	13,449	14.73	790 (87%)	17.02	526 (58%)	72 (8%)	30 (3.3%)	11 (1.2%)	\$69,223,313
Gone West (1989)	Mr. Prospector	Secrettame	557	7,410	13.30	457 (82%)	16.21	342 (61%)	68 (12%)	42 (7.5%)	11 (2%)	\$48,880,110
Dixieland Band (1986)	Northern Dancer	Mississippi Mud	610	8,775	14.39	495 (81%)	17.73	401 (66%)	67 (11%)	29 (4.8%)	3 (0.5%)	\$44,787,000
Crafty Prospector (1985)	Mr. Prospector	Real Crafty Lady	569	11,097	19.50	507 (89%)	21.89	404 (71%)	59 (10%)	22 (3.9%)	4 (0.7%)	\$61,239,603
Carson City (1992)	Mr. Prospector	Blushing Promise	537	8,536	15.90	448 (83%)	19.05	376 (70%)	58 (11%)	18 (3.4%)	7 (1.3%)	\$40,827,522
Mr. Prospector (1976)	Raise a Native	Gold Digger	438	4,172	9.53	363 (83%)	11.49	263 (60%)	58 (13%)	40 (9.1%)	15 (3.4%)	\$43,417,293
Kris S. (1983)	Roberto	Sharp Queen	495	7,944	16.05	437 (88%)	18.18	330 (67%)	55 (11%)	28 (5.7%)	10 (2%)	\$50,366,717
Wild Again (1987)	Iccapade	Bushel-n-Peck	585	10,112	17.29	503 (86%)	20.1	392 (67%)	54 (9%)	29 (5%)	11 (1.9%)	\$50,143,171
Rahy (1991)	Blushing Groom (FR)	Glorious Song	505	8,240	16.32	409 (81%)	20.15	294 (58%)	54 (11%)	26 (5.1%)	9 (1.8%)	\$55,876,691
Dynaformer (1991)	Roberto	Andover Way	486	10,532	21.67	450 (93%)	23.4	354 (73%)	53 (11%)	18 (3.7%)	7 (1.4%)	\$46,351,233
Cure the Blues (1983)	Stop the Music	Quick Cure	520	10,629	20.44	435 (84%)	24.43	365 (70%)	53 (10%)	20 (3.8%)	3 (0.6%)	\$40,432,896
Seeking the Gold (1991)	Mr. Prospector	Con Game	435	5,465	12.56	367 (84%)	14.89	259 (60%)	53 (12%)	33 (7.6%)	13 (3%)	\$51,615,659
Nureyev (1981)	Northern Dancer	Special	398	4,985	12.53	319 (80%)	15.63	244 (61%)	53 (13%)	33 (8.3%)	17 (4.3%)	\$40,102,651
Lost Code (1990)	Codex	Loss Or Gain	521	11,329	21.74	445 (85%)	25.46	354 (68%)	52 (10%)	8 (1.5%)	1 (0.2%)	\$31,962,202
Allen's Prospect (1988)	Mr. Prospector	Change Water	620	15,093	24.34	558 (90%)	27.05	481 (78%)	50 (8%)	4 (0.6%)	2 (0.3%)	\$36,577,900
Deputy Minister (1985)	Vice Regent	Mint Copy	580	6,359	10.96	436 (75%)	14.58	309 (53%)	49 (8%)	28 (4.8%)	12 (2.1%)	\$49,456,574
A.P. Indy (1994)	Seattle Slew	Weekend Surprise	334	3,979	11.91	270 (81%)	14.74	200 (60%)	48 (14%)	34 (10.2%)	14 (4.2%)	\$48,203,756
Diesis (GB) (1985)	Sharpen Up (GB)	Doubly Sure (GB)	439	4,821	10.98	352 (80%)	13.7	224 (51%)	48 (11%)	25 (5.7%)	6 (1.4%)	\$27,095,473
Silver Deputy (1990)	Deputy Minister	Silver Valley	479	9,133	19.07	406 (85%)	22.5	338 (71%)	47 (10%)	10 (2.1%)	1 (0.2%)	\$44,584,779
Lord Avie (1983)	Lord Gaylord	Avie	443	7,171	16.19	361 (82%)	19.86	262 (59%)	46 (10%)	13 (2.9%)	4 (0.9%)	\$24,072,018
Mt. Livermore (1987)	Blushing Groom (FR)	Flama Ardiente	561	10,653	18.99	485 (87%)	21.96	383 (68%)	45 (8%)	19 (3.4%)	5 (0.9%)	\$44,051,301
Gulch (1990)	Mr. Prospector	Jameela	528	9,957	18.86	467 (88%)	21.32	347 (66%)	45 (9%)	20 (3.8%)	7 (1.3%)	\$56,561,643
Theatrical (IRE) (1989)	Nureyev	Tree of Knowledge (IRE)	521	5,858	11.24	417 (80%)	14.05	281 (54%)	45 (9%)	37 (7.1%)	16 (3.1%)	\$52,721,099
Seattle Slew (1980)	Bold Reasoning	My Charmer	487	4,155	8.53	352 (72%)	11.8	237 (49%)	45 (9%)	25 (5.1%)	10 (2.1%)	\$43,908,264
Starts/Foal norms for all sires of GI SW for 90-99					17.68							

Stallion (FCY)	2yo Starters	2yo Starts	2yo Strts/Str	3yo Starters	3yo Starts	3yo Strts/Str	4yo+ Starters	4yo+ Starts	4yo+ Strts/Str	Avg Yrs Raced	AWD	SW AWD	GSW AWD
Top Sires of G1 Stakes Winners by Starts/Foal, 1990-1999													
Ward Off Trouble (1989)	19	73	3.84	34	319	9.38	34	863	25.38	3.89	7.47	6.20	6.25
Prosperous (1987)	28	124	4.43	42	411	9.79	30	1,136	37.87	3.72	6.87	8.43	8.43
Line In The Sand (1995)	171	818	4.78	211	2,364	11.2	164	4,078	24.87	3.54	7.06	7.52	8.33
Gold Alert (1989)	150	690	4.6	220	2,165	9.84	195	4,983	25.55	3.70	7.10	7.65	8.09
Fortunate Prospect (1988)	330	1769	5.36	381	3,984	10.46	300	7,532	25.11	3.50	6.58	7.71	8.30
Sir Leon (1992)	43	298	6.93	65	644	9.91	51	1,385	27.16	3.48	7.90	8.63	8.65
Judge T C (1998)	98	436	4.45	118	1,109	9.4	103	2,245	21.8	3.74	7.28	8.54	9.38
Valid Wager (1998)	56	270	4.82	83	765	9.22	67	1,490	22.24	3.71	6.62	7.78	7.83
Eskimo (1987)	120	650	5.42	164	1,704	10.39	136	3,189	23.45	3.52	7.32	10.20	7.81
Baldski (1981)	99	488	4.93	128	1,244	9.72	100	2,293	22.93	3.37	7.28	7.59	7.07
Personal Flag (1987)	192	718	3.74	325	2,810	8.65	276	7,045	25.53	3.72	7.55	8.16	7.72
Vermont (1995)	32	153	4.78	45	444	9.87	43	1,034	24.05	3.69	6.35	7.16	6.50
Regal Classic (1991)	210	752	3.58	336	2,717	8.09	285	7,338	25.75	3.67	7.42	7.78	9.19
Caveat (1985)	98	401	4.09	180	1,641	9.12	158	3,804	24.08	3.65	8.16	9.32	10.40
Skip Trial (1989)	141	602	4.27	233	1,990	8.54	192	4,531	23.6	3.53	6.93	8.40	9.17
End Sweep (1996)	187	811	4.34	234	2,082	8.9	201	4,616	22.97	3.77	6.30	6.42	6.70
Alaskan Frost (1994)	100	578	5.78	117	1,131	9.67	91	2,258	24.81	3.60	6.90	7.14	8.00
Buckaroo (1981)	132	649	4.92	196	1,979	10.1	158	3,862	24.44	3.44	6.94	6.69	6.56
Irish Tower (1983)	161	605	3.76	221	1,869	8.46	182	4,711	25.88	3.60	7.06	7.14	8.14
Beau Genius (1992)	212	839	3.96	331	2,818	8.51	262	6,539	24.96	3.63	6.97	7.49	7.83
Rizzi (1997)	71	386	5.44	94	942	10.02	70	1,749	24.99	3.33	6.55	6.99	7.90
High Brite (1990)	221	873	3.95	385	3,350	8.7	332	8,204	24.71	3.66	6.51	6.72	7.38
Maudlin (1985)	112	554	4.95	166	1,501	9.04	144	3,139	21.8	3.47	6.94	8.28	9.14
Poles Apart (1988)	61	286	4.69	81	963	11.89	63	1,360	21.59	3.11	8.16	18.90	18.67
Allen's Prospect (1988)	281	997	3.55	507	4,264	8.41	451	9,832	21.8	3.42	6.40	7.19	10.20
Colony Light (1994)	75	389	5.19	92	925	10.05	75	1,557	20.76	3.57	7.00	8.30	9.25
Sea Salute (1998)	33	118	3.58	50	435	8.7	39	941	24.13	3.70	6.77	8.44	9.25
Fit to Fight (1986)	245	935	3.82	366	2,981	8.14	288	7,057	24.5	3.40	7.02	7.92	8.59
Top Sires of G1 Stakes Winners by Total Stakes Winners, 1990-1999													
Storm Cat (1989)	270	875	3.24	440	2,329	5.29	309	3,045	9.85	2.49	7.04	7.52	7.75
Danzig (1982)	191	522	2.73	345	1,635	4.74	250	2,658	10.63	2.77	7.36	7.74	7.77
Broad Brush (1989)	207	731	3.53	367	2,816	7.67	298	4,939	16.57	3.20	7.57	8.26	8.46
Woodman (1988)	458	1369	2.99	717	4,306	6.01	494	7,774	15.74	3.03	8.81	9.17	8.38
Gone West (1989)	256	696	2.72	413	2,230	5.4	291	4,484	15.41	3.02	7.34	7.65	7.77
Dixieland Band (1986)	246	672	2.73	443	2,600	5.87	344	5,503	16	3.12	7.14	7.76	8.01
Crafty Prospector (1985)	272	921	3.39	451	3,235	7.17	365	6,941	19.02	3.23	6.91	7.37	8.02
Carson City (1992)	263	939	3.57	398	2,615	6.57	288	4,982	17.3	3.00	6.47	6.56	6.59
Mr. Prospector (1976)	194	489	2.52	321	1,547	4.82	213	2,136	10.03	2.54	7.56	7.93	8.04
Kris S. (1983)	237	765	3.23	405	2,761	6.82	308	4,418	14.34	3.02	8.48	9.71	9.57
Wild Again (1987)	248	843	3.4	442	2,863	6.48	352	6,406	18.2	3.10	7.49	7.91	8.53
Rahy (1991)	226	682	3.02	365	2,307	6.32	262	5,251	20.04	3.24	7.43	7.58	8.30
Dynaformer (1991)	235	804	3.42	418	3,194	7.64	347	6,534	18.83	3.43	8.43	9.87	11.98
Cure the Blues (1983)	235	801	3.41	396	3,158	7.97	334	6,670	19.97	3.34	6.91	7.22	7.31
Seeking the Gold (1991)	188	509	2.71	319	1,798	5.64	237	3,158	13.32	2.82	7.37	7.67	7.75
Nureyev (1981)	171	414	2.42	290	1,419	4.89	203	3,152	15.53	3.08	8.15	8.34	8.53
Lost Code (1990)	244	954	3.91	396	3,356	8.47	340	7,019	20.64	3.36	6.93	7.44	7.95
Allen's Prospect (1988)	281	997	3.55	507	4,264	8.41	451	9,832	21.8	3.42	6.40	7.19	10.20
Deputy Minister (1985)	195	590	3.03	385	2,098	5.45	290	3,671	12.66	2.69	7.87	8.60	9.13
A.P. Indy (1994)	133	393	2.95	231	1,318	5.71	177	2,268	12.81	2.80	8.36	9.10	9.13
Diesis (GB) (1985)	190	473	2.49	314	1,525	4.86	203	2,823	13.91	3.09	9.37	9.15	9.15
Silver Deputy (1990)	195	626	3.21	371	2,691	7.25	304	5,816	19.13	3.29	6.81	7.43	7.99
Lord Avie (1983)	137	493	3.6	314	2,258	7.19	267	4,420	16.55	3.02	7.89	10.01	10.39
Mt. Livermore (1987)	271	868	3.2	444	2,951	6.65	349	6,834	19.58	3.39	7.07	7.67	8.07
Gulch (1990)	279	881	3.16	427	2,904	6.8	323	6,172	19.11	3.33	7.71	8.02	8.92
Theatrical (IRE) (1989)	128	294	2.3	359	1,760	4.9	294	3,804	12.94	2.88	9.23	9.68	9.80
Seattle Slew (1980)	149	419	2.81	305	1,615	5.3	221	2,121	9.6	2.40	7.83	8.27	8.64

Stallion (FCY)	Sire	Dam	Named Foals R.A.	Starts	Starts/ Foal	Starters (% Fls)	Starts/ Strter	Wnrs (% Fls)	SW (% Fls)	GSW (% Fls)	G1SW (% Fls)	Earnings
Top Sires of G1 Stakes Winners by Starts/Foal, 2000-2003												
Halory Hunter (2000)	Jade Hunter	Halory	131	2,714	20.72	108 (82%)	25.13	83 (63%)	5 (4%)	2 (1.5%)	1 (0.8%)	\$4,515,270
Catienus (2002)	Storm Cat	Diamond City	110	2,277	20.70	102 (93%)	22.32	88 (80%)	10 (9%)	2 (1.8%)	2 (1.8%)	\$8,181,920
West by West (1996)	Gone West	West Turn	122	2,512	20.59	107 (88%)	23.48	86 (70%)	5 (4%)	1 (0.8%)	1 (0.8%)	\$5,679,304
Lucky Lionel (2000)	Mt. Livermore	Crafty Man	176	3,386	19.24	148 (84%)	22.88	125 (71%)	10 (6%)	2 (1.1%)	1 (0.6%)	\$11,002,232
Roar (1998)	Forty Niner	Wild Applause	185	3,501	18.92	161 (87%)	21.75	126 (68%)	9 (5%)	2 (1.1%)	1 (0.5%)	\$10,971,557
Colony Light (1994)	Pleasant Colony	Great Light	140	2,631	18.79	115 (82%)	22.88	86 (61%)	4 (3%)	1 (0.7%)	1 (0.7%)	\$5,425,359
Petionville (1998)	Seeking the Gold	Vana Turns	164	3,015	18.38	149 (91%)	20.23	122 (74%)	14 (9%)	3 (1.8%)	1 (0.6%)	\$10,347,926
Peaks and Valleys (1998)	Mt. Livermore	Strike a Balance	222	4,042	18.21	186 (84%)	21.73	157 (71%)	18 (8%)	4 (1.8%)	2 (0.9%)	\$13,160,683
Editor's Note (1999)	Forty Niner	Beware of the Cat	173	3,126	18.07	152 (88%)	20.57	112 (65%)	9 (5%)	1 (0.6%)	1 (0.6%)	\$6,455,436
Joyeux Danseur (2000)	Nureyev	Fabuleux Jane	131	2,356	17.98	112 (85%)	21.04	75 (57%)	4 (3%)	3 (2.3%)	2 (1.5%)	\$6,820,011
Slew City Slew (1991)	Seattle Slew	Weber City Miss	249	4,463	17.92	216 (87%)	20.66	158 (63%)	11 (4%)	3 (1.2%)	2 (0.8%)	\$15,229,195
American Chance (1996)	Cure the Blues	American Dance	148	2,650	17.91	129 (87%)	20.54	105 (71%)	12 (8%)	3 (2%)	1 (0.7%)	\$9,780,582
Concerto (2000)	Chief's Crown	Undeniably	163	2,902	17.80	134 (82%)	21.66	115 (71%)	14 (9%)	7 (4.3%)	5 (3.1%)	\$10,237,588
Summer Squall (1993)	Storm Bird	Weekend Surprise	73	1,285	17.60	66 (90%)	19.47	52 (71%)	6 (8%)	3 (4.1%)	1 (1.4%)	\$4,971,492
Notebook (1991)	Well Decorated	Mobcap	183	3,203	17.50	159 (87%)	20.14	130 (71%)	13 (7%)	3 (1.6%)	1 (0.5%)	\$12,690,379
Pioneering (1998)	Mr. Prospector	Terlingua	209	3,654	17.48	185 (89%)	19.75	143 (68%)	21 (10%)	6 (2.9%)	3 (1.4%)	\$12,588,975
Tour d'Or (1991)	Medaille d'Or	Debby's Turn	188	3,259	17.34	153 (81%)	21.30	120 (64%)	5 (3%)	1 (0.5%)	1 (0.5%)	\$6,621,706
Mister Jolie (1998)	Valid Appeal	Jolie Jolie	120	2,080	17.33	98 (82%)	21.22	76 (63%)	3 (3%)	1 (0.8%)	1 (0.8%)	\$4,743,272
Alphabet Soup (1999)	Cozzene	Illiterate	262	4,539	17.32	226 (86%)	20.08	171 (65%)	17 (6%)	4 (1.5%)	1 (0.4%)	\$13,757,691
Friendly Lover (1998)	Cutlass	Glide Along	196	3,386	17.28	161 (82%)	21.03	125 (64%)	2 (1%)	1 (0.5%)	1 (0.5%)	\$7,995,132
Northern Afleet (2000)	Afleet	Nuryette	191	3,288	17.21	168 (88%)	19.57	143 (75%)	12 (6%)	3 (1.6%)	1 (0.5%)	\$12,913,722
Victory Speech (1999)	Deputy Minister	Ida's Image	90	1,542	17.13	77 (86%)	20.03	47 (52%)	4 (4%)	1 (1.1%)	1 (1.1%)	\$2,972,696
Roy (1997)	Fappiano	Adlibber	98	1,677	17.11	82 (84%)	20.45	69 (70%)	9 (9%)	2 (2%)	1 (1%)	\$5,621,231
Wild Event (2001)	Wild Again	North Of Eden (IRE)	128	2,155	16.84	115 (90%)	18.74	88 (69%)	6 (5%)	1 (0.8%)	1 (0.8%)	\$5,716,251
Banker's Gold (2000)	Forty Niner	Banker's Lady	214	3,595	16.80	175 (82%)	20.54	138 (64%)	7 (3%)	2 (0.9%)	1 (0.5%)	\$7,339,757
Langfuhr (1999)	Danzig	Sweet Briar Too	310	5,202	16.78	275 (89%)	18.92	216 (70%)	35 (11%)	11 (3.5%)	3 (1%)	\$28,934,387
Go for Gin (1997)	Cormorant	Never Knock	105	1,754	16.70	92 (88%)	19.07	60 (57%)	6 (6%)	2 (1.9%)	1 (1%)	\$4,592,225
Numerous (1997)	Mr. Prospector	Number	168	2,754	16.39	141 (84%)	19.53	97 (58%)	4 (2%)	2 (1.2%)	2 (1.2%)	\$5,939,839
Will's Way (2000)	Easy Goer	Willamae	129	2,108	16.34	105 (81%)	20.08	82 (64%)	5 (4%)	3 (2.3%)	1 (0.8%)	\$5,536,804
Devil His Due (1997)	Devil's Bag	Plenty O'Toole	281	4,583	16.31	245 (87%)	18.71	184 (65%)	13 (5%)	4 (1.4%)	2 (0.7%)	\$18,177,575
Starts/Foal norms for all sires of GI SW for 00-03					13.10							
Top Sires of G1 Stakes Winners by Total Stakes Winners, 2000-2003												
A.P. Indy (1994)	Seattle Slew	Weekend Surprise	343	3,481	10.15	269 (78%)	12.94	206 (60%)	50 (15%)	25 (7.3%)	5 (1.5%)	\$34,979,893
Storm Cat (1989)	Storm Bird	Terlingua	320	2,474	7.73	246 (77%)	10.06	183 (57%)	50 (16%)	31 (9.7%)	11 (3.4%)	\$35,783,801
Distorted Humor (2000)	Forty Niner	Danzig's Beauty	244	3,849	15.77	223 (91%)	17.26	187 (77%)	40 (16%)	13 (5.3%)	6 (2.5%)	\$29,746,279
Unbridled's Song (1998)	Unbridled	Trolley Song	336	3,093	9.21	265 (79%)	11.67	193 (57%)	36 (11%)	17 (5.1%)	4 (1.2%)	\$21,988,466
Langfuhr (1999)	Danzig	Sweet Briar Too	310	5,202	16.78	275 (89%)	18.92	216 (70%)	35 (11%)	11 (3.5%)	3 (1%)	\$28,934,387
Saint Ballado (1994)	Halo	Ballade	347	3,258	9.39	268 (77%)	12.16	190 (55%)	33 (10%)	13 (3.7%)	3 (0.9%)	\$27,754,604
Grand Slam (2000)	Gone West	Bright Candles	448	5,245	11.71	373 (83%)	14.06	284 (63%)	31 (7%)	8 (1.8%)	2 (0.4%)	\$29,852,273
Wild Rush (2000)	Wild Again	Rose Park	305	4,404	14.44	251 (82%)	17.55	198 (65%)	27 (9%)	11 (3.6%)	3 (1%)	\$26,322,518
Indian Charlie (2000)	In Excess (IRE)	Soviet Sojourn	219	3,093	14.12	180 (82%)	17.18	140 (64%)	27 (12%)	6 (2.7%)	3 (1.4%)	\$15,682,720
Forest Wildcat (1998)	Storm Cat	Victoria Beauty	283	3,881	13.71	252 (89%)	15.4	199 (70%)	27 (10%)	8 (2.8%)	2 (0.7%)	\$17,064,160
Tale of the Cat (2000)	Storm Cat	Yarn	403	4,897	12.15	336 (83%)	14.57	252 (63%)	26 (6%)	9 (2.2%)	2 (0.5%)	\$25,346,723
Kingmambo (1995)	Mr. Prospector	Miesque	285	2,853	10.01	241 (85%)	11.84	140 (49%)	26 (9%)	18 (6.3%)	9 (3.2%)	\$24,515,929
Forestry (2001)	Storm Cat	Shared Interest	205	1,865	9.1	148 (72%)	12.6	113 (55%)	26 (13%)	10 (4.9%)	3 (1.5%)	\$12,999,168
El Prado (IRE) (1994)	Sadler's Wells	Lady Capulet	271	3,759	13.87	227 (84%)	16.56	157 (58%)	24 (9%)	10 (3.7%)	4 (1.5%)	\$25,026,750
Carson City (1992)	Mr. Prospector	Blushing Promise	307	4,087	13.31	255 (83%)	16.03	191 (62%)	24 (8%)	11 (3.6%)	1 (0.3%)	\$21,892,872
Elusive Quality (2000)	Gone West	Touch of Greatness	276	3,653	13.24	240 (87%)	15.22	196 (71%)	24 (9%)	8 (2.9%)	3 (1.1%)	\$24,447,855
Smart Strike (1998)	Mr. Prospector	Classy 'n Smart	200	2,914	14.57	179 (90%)	16.28	147 (74%)	23 (12%)	13 (6.5%)	3 (1.5%)	\$22,066,180
Silver Deputy (1990)	Deputy Minister	Silver Valley	256	3,601	14.07	210 (82%)	17.15	174 (68%)	23 (9%)	10 (3.9%)	2 (0.8%)	\$22,157,664
Dynaformer (1991)	Roberto	Andover Way	241	2,963	12.29	211 (88%)	14.04	148 (61%)	23 (10%)	12 (5%)	4 (1.7%)	\$25,061,293
Pulpit (1999)	A.P. Indy	Preach	214	2,601	12.15	185 (86%)	14.06	129 (60%)	23 (11%)	14 (6.5%)	5 (2.3%)	\$18,467,405
Awesome Again (2000)	Deputy Minister	Primal Force	277	3,265	11.79	216 (78%)	15.12	150 (54%)	23 (8%)	16 (5.8%)	8 (2.9%)	\$29,040,430
Pioneering (1998)	Mr. Prospector	Terlingua	209	3,654	17.48	185 (89%)	19.75	143 (68%)	21 (10%)	6 (2.9%)	3 (1.4%)	\$12,588,975
Seeking the Gold (1991)	Mr. Prospector	Con Game	229	1,981	8.65	181 (79%)	10.94	119 (52%)	21 (9%)	11 (4.8%)	3 (1.3%)	\$19,006,269
Giant's Causeway (2002)	Storm Cat	Mariah's Storm	173	1,450	8.38	146 (84%)	9.93	97 (56%)	21 (12%)	12 (6.9%)	2 (1.2%)	\$12,583,466
Not For Love (1997)	Mr. Prospector	Dance Number	246	4,095	16.65	217 (88%)	18.87	170 (69%)	21 (9%)	3 (1.2%)	0 (0%)	\$17,741,950
Stormy Atlantic (2000)	Storm Cat	Atlantis	295	4,185	14.19	246 (83%)	17.01	189 (64%)	21 (7%)	8 (2.7%)	0 (0%)	\$16,236,873
Starts/Foal norms for all sires of GI SW for 00-03					13.10							

Stallion (FCY)	2yo Starters	2yo Starts	2yo Strts/Str	3yo Starters	3yo Starts	3yo Strts/Str	4yo+ Starters	4yo+ Starts	4yo+ Strts/Str	Avg Yrs Raced	AWD	SW AWD	GSW AWD
Top Sires of G1 Stakes Winners by Starts/Foal, 2000-2003													
Halory Hunter (2000)	54	227	4.20	94	942	10.02	91	1545	16.98	3.15	7.31	7.13	7.38
Catienus (2002)	67	274	4.09	99	903	9.12	77	1100	14.29	3.07	7.14	7.92	8.57
West by West (1996)	60	265	4.42	97	820	8.45	84	1427	16.99	3.07	6.87	7.19	9.00
Lucky Lionel (2000)	94	362	3.85	127	1058	8.33	116	1966	16.95	3.24	6.21	6.28	6.00
Roar (1998)	90	272	3.02	145	1110	7.66	114	2119	18.59	3.07	6.82	7.37	8.45
Colony Light (1994)	76	446	5.87	98	934	9.53	78	1251	16.04	2.83	7.38	8.25	8.33
Petionville (1998)	92	305	3.32	138	1106	8.01	116	1604	13.83	3.03	6.95	7.54	7.78
Peaks and Valleys (1998)	96	342	3.56	167	1328	7.95	146	2372	16.25	3.10	7.43	7.84	8.50
Editor's Note (1999)	89	332	3.73	139	1081	7.78	116	1713	14.77	3.01	7.16	7.8	8.50
Joyeux Danseur (2000)	63	199	3.16	98	681	6.95	84	1476	17.57	3.23	7.34	7.42	8.25
Slew City Slew (1991)	126	471	3.74	195	1482	7.60	160	2510	15.69	2.97	7.13	8.68	9.04
American Chance (1996)	79	265	3.35	122	933	7.65	94	1452	15.45	3.00	6.44	7.33	8.00
Concerto (2000)	89	380	4.27	117	975	8.33	100	1547	15.47	3.04	6.91	8.29	8.59
Summer Squall (1993)	38	139	3.66	60	403	6.72	43	743	17.28	2.97	7.84	9.38	8.60
Notebook (1991)	92	320	3.48	137	1118	8.16	106	1765	16.65	2.90	6.96	7.76	9.00
Pioneering (1998)	90	365	4.06	163	1197	7.34	151	2092	13.85	3.05	6.75	6.99	7.30
Tour d'Or (1991)	79	348	4.41	136	1088	8.00	104	1823	17.53	2.79	6.89	7.67	8.38
Mister Jolie (1998)	51	254	4.98	85	718	8.45	70	1108	15.83	2.84	5.94	6	6.00
Alphabet Soup (1999)	86	272	3.16	198	1408	7.11	185	2859	15.45	3.04	7.17	7.55	8.10
Friendly Lover (1998)	97	386	3.98	141	1232	8.74	109	1768	16.22	2.81	6.31	8.75	9.00
Northern Afleet (2000)	71	251	3.54	148	1114	7.53	129	1923	14.91	2.84	6.54	7.6	8.36
Victory Speech (1999)	44	165	3.75	65	516	7.94	55	861	15.65	2.95	6.99	7.85	8.75
Roy (1997)	40	153	3.83	77	547	7.10	64	977	15.27	3.05	6.98	7.43	8.13
Wild Event (2001)	63	280	4.44	98	816	8.33	89	1059	11.90	2.90	6.94	7.38	7.00
Banker's Gold (2000)	99	388	3.92	158	1294	8.19	129	1913	14.83	2.91	6.85	7	6.00
Langfuhr (1999)	147	519	3.53	255	1750	6.86	206	2933	14.24	2.96	7.15	8.13	8.96
Go for Gin (1997)	50	137	2.74	84	653	7.77	66	964	14.61	2.83	7.51	8.47	9.83
Numerous (1997)	69	281	4.07	123	907	7.37	105	1566	14.91	2.82	7.11	8.59	8.36
Will's Way (2000)	54	180	3.33	96	759	7.91	81	1169	14.43	2.91	7.10	7.06	7.00
Devil His Due (1997)	124	430	3.47	204	1558	7.64	178	2595	14.58	2.82	6.94	7.77	8.57
Top Sires of G1 Stakes Winners by Total Stakes Winners, 2000-2003													
A.P. Indy (1994)	147	382	2.60	238	1,252	5.26	192	1,847	9.62	2.68	8.11	8.46	8.87
Storm Cat (1989)	139	411	2.96	206	951	4.62	138	1,112	8.06	2.34	7.20	7.88	8.03
Distorted Humor (2000)	127	409	3.22	200	1,362	6.81	161	2,078	12.91	2.96	6.93	7.45	8.38
Unbridled's Song (1998)	120	320	2.67	230	1,144	4.97	190	1,629	8.57	2.55	7.21	7.40	8.33
Langfuhr (1999)	147	519	3.53	255	1,750	6.86	206	2,933	14.24	2.96	7.15	8.13	8.96
Saint Ballado (1994)	126	337	2.67	238	1,244	5.23	169	1,677	9.92	2.53	7.39	8.01	8.78
Grand Slam (2000)	196	573	2.92	328	1,972	6.01	255	2,700	10.59	2.72	6.76	7.34	7.56
Wild Rush (2000)	131	435	3.32	218	1,443	6.62	184	2,526	13.73	2.87	6.98	7.83	8.20
Indian Charlie (2000)	98	364	3.71	168	1,032	6.14	126	1,697	13.47	2.92	6.67	7.38	8.45
Forest Wildcat (1998)	165	563	3.41	225	1,343	5.97	169	1,975	11.69	2.85	6.40	7.08	7.76
Tale of the Cat (2000)	185	545	2.95	296	1,735	5.86	221	2,617	11.84	2.68	6.80	7.18	7.58
Kingmambo (1995)	122	317	2.60	213	997	4.68	153	1,539	10.06	2.72	9.25	10.08	9.23
Forestry (2001)	70	192	2.74	134	671	5.01	100	1,002	10.02	2.58	6.64	7.06	7.58
El Prado (IRE) (1994)	118	373	3.16	200	1,193	5.97	162	2,193	13.54	2.91	7.88	8.43	9.05
Carson City (1992)	147	493	3.35	226	1,479	6.54	164	2,115	12.9	2.76	6.47	7.25	7.21
Elusive Quality (2000)	129	354	2.74	212	1,278	6.03	173	2,021	11.68	2.79	6.35	7.05	7.38
Smart Strike (1998)	91	257	2.82	159	1,019	6.41	133	1,638	12.32	2.90	7.39	8.47	9.56
Silver Deputy (1990)	100	296	2.96	188	1,081	5.75	157	2,224	14.17	2.97	6.84	7.31	8.00
Dynaformer (1991)	90	259	2.88	189	999	5.29	156	1,705	10.93	2.74	8.74	8.69	8.95
Pulpit (1999)	109	270	2.48	165	897	5.44	116	1,434	12.36	2.81	7.84	8.57	8.82
Awesome Again (2000)	98	284	2.90	182	1,088	5.98	161	1,893	11.76	2.84	7.44	8.22	8.37
Pioneering (1998)	90	365	4.06	163	1,197	7.34	151	2,092	13.85	3.05	6.75	6.99	7.30
Seeking the Gold (1991)	81	197	2.43	157	714	4.55	112	1,070	9.55	2.49	7.44	7.53	8.32
Giant's Causeway (2002)	72	169	2.35	117	535	4.57	100	746	7.46	2.40	8.34	9.20	8.71
Not For Love (1997)	86	268	3.12	192	1,331	6.93	172	2,496	14.51	2.98	6.54	7.40	8.83
Stormy Atlantic (2000)	153	545	3.56	209	1,493	7.14	161	2,147	13.34	2.74	6.54	7.31	7.92



Table Talk

The *Blood-Horse* recently assembled a panel to discuss the results of the study documented on page 3684. Participating in this round table were Bobby Trussell, director of Walmac Farm near Lexington; Mike Pons, co-owner of Country Life Farm in Maryland; Arthur Hancock III, owner of Stone Farm near Paris, Ky.; Duncan Taylor, co-owner of Taylor Made Farm near Nicholasville, Ky.; Lexington pedigree analyst Rob Keck; and Rob Whiteley, New Jersey-based owner of Liberation Farm. *Blood-Horse* executive editor of digital media Eric Mitchell moderated the panel.

Prominent horsemen discuss what they see inside the numbers

BH: This is the first of many discussions I hope we have looking at the number of starts for the Thoroughbred breed trying to figure out why we're seeing the trends we're seeing. So, we see a steady decrease in starts per foal aggregated through all these stallion groups from 1970 through 2003. 20.42 for the '70s falls steadily to 13.15 for 2000-03—a pretty big drop. The initial question we have is whether that indicates the Thoroughbred is less durable today than it was back in the '70s.

Bobby Trussell: It seems obvious that the breed is not as durable as it was, but no one knows why. And we don't know for sure if it really is, or if it just appears to be.

The number of starts has decreased dramatically. I've seen data from The Jockey Club going back to the '50s that makes this drop seem even more steep. In the '50s the average starts per starter was in the 40s, and in this data it's down to 16, a huge drop.

The thing that strikes me, since I race horses in Europe, is we tend to think the world revolves around the U.S. and all there is is what we have here. But these other countries do not seem to be having the problems that we are having.

I race American-breds, as American as apple pie, over there, and I see them racing a lot more. I buy about 10 yearlings per year and race five here and send five to Europe, and the ones I have in Europe run all the time, and the ones I have here never run, comparatively. I have four unraced 3-year-olds in the U.S. right now. Four out of six.

The answer could be genetics, that we've inbred to unsound horses; that could be one element to it. My own personal belief is that since American-breds that I send to Europe are pretty tough, that it is not the genes. Every other jurisdiction in the entire world has signed on to the International Racing Federation, which has guidelines from A to Z, especially medication. We've signed on to everything but opted out of the medication policy. And so we are glaringly different from the European countries, Japan, Hong Kong, New Zealand, Australia. They all have zero tolerance, a no-medication race day policy, and their horses are all tougher than ours.

Arthur Hancock: As an owner, you don't want to tie your hands. I told a vet last year I don't want my horses to get anything unless they're sick. And he said, 'Well, Arthur, you want to win races, don't you?' And I got the picture.

I worked a year for Eddie Nely in 1966, and the only time the vet came around the barn was to check the horse for temperature or colic or something, a couple of times a week, and now they're all over everywhere. It's \$1,500 a month. You have 10 horses in training, it's \$150,000 a year, a small fortune. And not only that, but your horses are more unsound; they don't run as often. You actually get the opposite effect of what the drugs



Our esteemed panel, seated, from left, Bobby Trussell, Rob Whiteley, Rob Keck; standing, from left, Mike Pons, Arthur Hancock III, Duncan Taylor

ANNE M. EBERHARDT PHOTOS

are intended to do.

Trussell: If it worked, it would be one thing. We've gone the medication route for the last 40 years and the average starts have gone down tremendously, so apparently the medication makes them run less.

Michael Pons: The horse is the only reason we're here, and I think sometimes we don't do things with their best interest in mind. It's like in football where you keep piling on the poor guy. If one by one you pull some of the factors out, who would think you'd give them more medication and they'd run less? It's counter-intuitive.

But I also look at the emphasis put on 2-year-olds that they get ready to roll in February or March. You're taking some of your best and putting them through a Parris Island and then expecting them to come out the other side. Most of us know when you buy them at a sale you need to immediately turn them out and let them decompress and chill. But I see so many different factors thrown at them.

I think you're taking a lot of horsemanship out of the game and dumping it all on the vets. I don't see the maestro of the orchestra like Tartan and Windfields and Claiborne and all the farms that were all so well run. Now it's like dropping a baby on the doorstep of the trainers and the vets when I think the farm manager's footsteps are the best fertilizer. Somebody was paying attention back then.

Duncan Taylor: There's a lot of factors. Quality of horsemanship—we were an agricultural society in the '50s and everybody knew about animals. Used to be everyone was a horseman and you could tell a horse was sick as easy as you could tell your kid was sick. You don't have that same level of horsemanship. There are so many factors in getting a horse to the racetrack and getting him to start.

It's not cheap to keep them in training, and it comes down to the money. People say, 'Oh, that's terrible.' But if you're paying \$40,000 to keep a horse in training for a year, and you have to keep laying him off and can't get him to the track, and you have a 3-year-old and he hasn't made a start yet, they're pushing them to run.

Since I'm economically oriented, I would change things that are easy to change and don't cost a fortune, like cutting out medication on race day or whatever and then see what happens for three years.

Rob Keck: The number-one factor that I came up with is the change from the breeding-to-race stables that you had in the 1970s to a commercially driven breeding market you have now.

You don't find a lot of people who breed

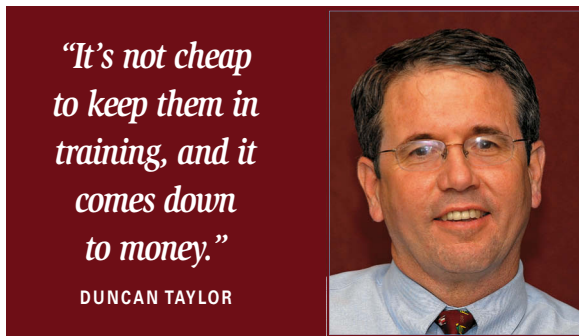
to race anymore; they all want to breed a horse that they can sell at the sale for a lot of money. Success is now selling a sales horse, not breeding a grade I winner. And that change has made the type of stallion that a breeder breeds to a completely different type of horse. Commercial breeders are now breeding to a stallion that was a quick maturing, fast, grade I-winning 2-year-old. Soundness is no longer a virtue.

There is a bias against later maturing horses, a bias against horses without speed who won't be popular with the pinhookers. So every year, commercial breeders are flocking to these short-lived racing horses who were sprinters. They're not trying to



"You're taking a lot of horsemanship out of the game and dumping it all on the vets."

MICHAEL PONS



"It's not cheap to keep them in training, and it comes down to money."

DUNCAN TAYLOR

breed racehorses; they're trying to breed a horse that a pinhooker is going to buy.

You don't see many people wanting to breed to a proven horse. It's sad. They want a new, exciting, trendy stallion. Forget proven. I think Frank Taylor said it best: 'More people are willing to pay for hope than for proof in this business.'

It doesn't take a genius to figure out that the reason we don't have sound horses is because people aren't breeding to sound horses. There's no demand to breed to a sound horse. If you had a racing stable and all you were trying to do was breed a great racehorse, you would bypass all these lightly raced horses and breed to a proven horse.

Sadly, commercial breeders now are not horsemen or educated, and their idea of planning a mating is going through *The Blood-Horse* auction guide and seeing who had the highest weanling average. That's not planning a mating.

Rob Whiteley: It's very important you've

documented the steady decline in the average starts, since that's a huge problem in our industry because of the economics. I don't believe that the data gives us any data to address durability, or whether we're affecting the breed with our breeding practices, though I agree with Rob on the folly of the fascination with unproven sires at the expense of proven ones.

There is simply no evidence, however, that we're breeding a less durable racehorse. Show me the research on bone density or tendon resiliency; it's nonexistent. Many other factors affect the alleged fragility of the breed.

I find the decline trend very disturbing because costs of ownership are steadily increasing; purses are declining when adjusted for inflation; and we need to attract new owners into the game and make it possible for them to stay in, and keep the ones we have, who are shrinking away from us.

But to blame the trend on breeding practices is way off the mark. I think we need to develop a structural analysis on how the game has changed and how the breed has changed. It comes down to economics.

It costs \$45,000-\$50,000 a year in this country to keep a horse on the major circuits in training. That says to me that the owners to whom money doesn't matter can play that game, but the rest of the owners have to have their eyes on the meter. I'll be quick to pull a well-bred filly off the track after she breaks her maiden or goes through a condition or two when I see she's not going to move into stakes company. There's no incentive to keep them on the track, and I'm assuming my experience is not rare, that it's pretty

common, and is one of the factors that contributes to a decreasing number of starts. Fillies will run into a new season and then go into the sale.

There's one other trend I wanted to comment on. The average starts begin to markedly decline with the advent of year-round racing.

BH: Another interesting figure we found here was the number of starters from foals has been steadily increasing from 70.3% in the '70s up to 78.6% in 2000, even though we had a decline in starts per foal.

Whiteley: It may be a function of investment and the change in the composition of owners, and also a bit of effect from our advanced veterinary interventions. A function of investment in that horses are expensive and people who pay for yearlings want to see their horses run, and they may take extraordinary measures to get them to a race and have some fruition on investment.

Trussell: That's surprising, that more

foals start, and it looks like good news. Everything else looks like bad news.

Taylor: It could be the medication helps them get to the races, but can't keep them there.

Hancock: I agree with Duncan; it's kind of a quick fix. It gets them there and they make one or two starts and that's it.

BH: *Have we reached a critical point now where the success of the commercial market is more important than the overall health of the breed? Are we putting too much emphasis on the commercial market?*

Taylor: I don't think we've reached a critical point, but I think if we keep getting more commercial, I don't think there's an end to it. The economics of it—the money is going to drive it being more commercial. I don't think that the case is going to be that we breed a horse that isn't going to be healthy, but there are people in the game—and there always have been—that are making decisions more on the sale ring than on raising the horse. I don't see there is a lot we can do about it. OK, I was kind of thinking about that; if we were going to have a breeders' fund that'll give 50% of the purse if your horse starts 40 times...then there would probably be some people that would start concentrating on trying to breed one that would start 40 times. But until we do that, the people are going to make their decisions based on what makes money.

BH: *And that raises the question, if we're breeding a lot of unproven horses to unproven horses, then the commercial train rolls and that's the way it goes in the long run, are we driving that train into a corner where we've got all of these unproven horses?*

Whiteley: Well, we may not be damaging the breed, but I think we're damaging the industry when we do that.

Trussell: As long as it costs \$50,000 a year to keep a horse in training, the economics of racing aren't going to look that good. The commercial market is here to stay and there's no sense in lamenting it anymore. It's who we are. I think what needs to be done is something that makes it easier on the people who race. As you were saying, make more incentives for them. And if I can avoid \$100,000 in vet bills a year, that might be one way to do it, and have my horses run more instead of less; that would make the game a whole lot more interesting for me. Horses are very expensive to keep in training and they never run, and that is very discouraging... and unprofitable.

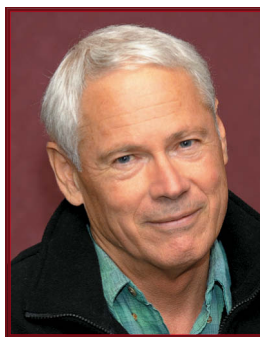
Hancock: And you've been in it all of your life. Think of the new guy that gets in...

Trussell: Yeah, I kind of knew this going in, and you, too, but really what it boils down to is you lose, lose, lose and

you're drilling dry holes and you're hoping for that one gusher. And you're hoping that if you're lucky enough, or smart enough, or whatever, you're going to hit a gusher every now and then. And you've hit the gushers, and that's the only justification I can make for being in the game. One thing about the horse business: it's the biggest collection of optimists ever assembled into one place.

Whiteley: The commercial marketplace is a kaleidoscopic convergence of hype and fact. The buyer's guides contribute the facts...the rest of it, it's all promotion and perception, and a horseman's eye and the horse he's looking at.

Pons: There are a lot of guys selling horses, making pretty good money selling horses after their first start. They ring the bell as a 2-year-old, and then, boom, they sell them. So, while they're in the com-

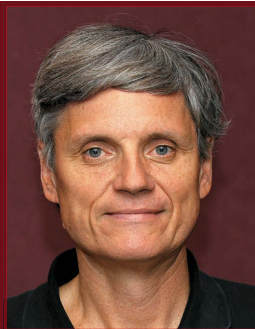


"I think we're making them less durable, but I don't think the breed itself is very much diminished."

ROB WHITELEY

"We've gone the medication route for the last 40 years and the average starts have gone down tremendously."

BOBBY TRUSSELL



mercial market, they're not in a sale ring; they're on the floor of the stock exchange; they're at the races making it happen.

It may work different for me than Duncan. I mean, here's a guy that has sold a billion dollars worth of horses...it boggles your mind. Arthur Hancock? Two Derby winners. It's like sitting around the table at the Hall of Fame here. It's fun that you can play this game any way you'd like and if you're lucky enough, it can be profitable or at least have a lot of fun, which is the other aim of this game.

Taylor: What you said about purses... the better purses get, the more people will be breeding for a sound horse that can earn a lot of money; if you could find a way to bring purses to a higher level to where they were more meaningful than the residual value of the horse. And that has happened to some extent. You do see some

older horses that, maybe, 10 years ago may not have hung around and raced, but it's not to the level that you'd like to see.

BH: *I want to look at one statistic, one that jumped out here. It's one that is particularly just for older horses. We broke out by age group 2-year-olds, 3-year-olds, and 4-year-olds and up and looked at their starts per starter, and it was curious that horses that were running to at least age 4 and older and what happened to them. Again, we've seen this steady decline from almost 26 starts per starter to almost 13 starts per starter in 2000...it cuts in half. Does looking at that segment tell you anything?*

Whiteley: I think I mentioned earlier the tendency for people to pull the plug earlier on their well-bred fillies, and the common time for that is either at the beginning of their 3-year-old year, but also at the beginning of their 4-year-old year, and that can affect the 4-and-up stats considerably.

Hancock: I think there is a general weakening of the breed, for a lot of the reasons that we've already talked about such as inbreeding, overbreeding, and all the things we've discussed. One thing, if we could have more medium- and long-distance races instead of sprints. (Olympic sprinter) Tyson Gay hurt himself in a sprint race. The more you sprint, the harder it is on the musculoskeletal system.

Taylor: It's the sprint races, and it's the economics. Another thing we haven't talked about too much is environment. The kind of water they're getting; the kind of feed they're getting. Is it as good as it used to be? I don't know.

Trussell: I had a guy call me, he was a blacksmith up in Maryland or Virginia, and he works on different breeds. He works on a lot of jumpers and show horses. And he says the same thing that is happen-

ing with Thoroughbreds is happening to other breeds, too. They're getting weaker. They're not as tough as they used to be. They get sick more often and there are more problems. His theory is that the feed has changed. He said back in the old days, 30 or 40 years ago, every town had its own feed mill, and now there is, like, four. They all have central warehouses, and in order to keep the feed good, they have to use all of these preservatives. So, now our feed is loaded with preservatives that we didn't have 30, 40 years ago, and all breeds seem to be weaker now than they used to be.

I've got some numbers that go back to the '50s that show 44 lifetime starts per starter, going down to 16 in the '90s. It jibes pretty much with the data here.

Hancock: What kind of percent drop is that?

Trussell: Oh man, it's two-thirds.

Hancock: In 50 years, that's a drop of 60-70%.

Trussell: So something's wrong.

Hancock: There is probably a lot wrong.

Whiteley: I think it's what we're doing to the horses, and I think the game has changed. I think it's our methods, and I think there are many, many other factors. I know, Arthur, you think we are producing weakness or soundness issues in the horses themselves, but I don't think so. I think we're making them a bit less durable, but I don't think the breed itself is very much diminished.

Hancock: I was reading something the other day my great-grandfather wrote and this was back in the 1870s or 1880s, and he said, 'We've got a 2-year-old who has only made 14 starts this year, so we've got some more racing.' So, let's get real. These horses are not like they used to be.

Whiteley: We're not treating them the same way, either.

Trussell: I think it's probably a combination of what we did 20 years ago, and how we've made our horses over the last generation, and what we're doing now. But I kind of agree with Rob in that it's more of what we're doing to them now than what we did to their ancestors. I don't think Raise a Native, who could be termed the biggest source of unsoundness that we have, I don't think he raced on Lasix or Bute, and he only raced three times. Danzig the same way. I mean, the fact is, some of the unsoundest horses made the best sires for a number of years, so probably the breed has weakened a little bit, but it's too much and too soon for it to be all genetics. I don't think it's the drugs we gave them 30 years ago; I think it's the drugs we're giving them now.

Whiteley: We don't know how many starts our horses would make if we gave them a break three or four months out of the year and kept them in training until they were 6 or 7 years old.

Taylor: That is like firing a horse. My dad used to say the firing doesn't do them any good; it just lays them off and gives them the time. They get some rest so they couldn't run.

Pons: I remember going to see the Christiana dispersal at different points of time. If you looked at those horses next to most of the other horses in the catalog back in the barns, they looked different. It was a different breed of cat. In my mind, those horses—they weren't the prettiest things—but some of them sold for nice prices. They had a different look. A whole different profile. Maybe Arthur has got some of those around, but you don't see all those generations because they've sort of chucked them, pulled all the fish out of the pool. You know

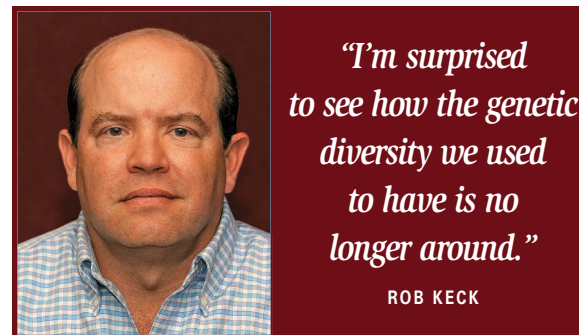
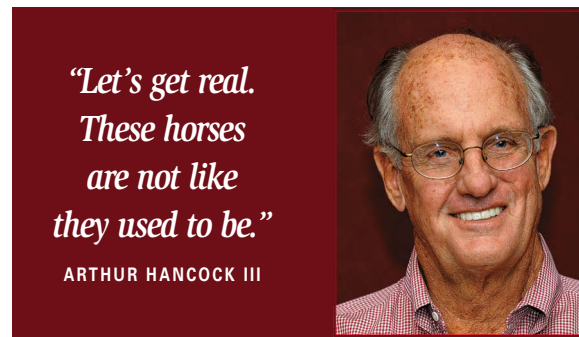
so much about your horses when you have their families. You are losing a little bit there. I always thought, if you had a really good mare... Arthur, you might know this story better than I do. Your dad had, I guess it was when the mother of Swale was born, she had one eye.

Hancock: I was there that night.

Pons: Imagine that today. It would be, 'Oh, we've got to get rid of her as fast as you can.' And here she was, a gusher for what she produced for you guys.

BH: *Where do you think the responsibility lies for a lot of these changes? We know we have to make some changes. Where can the most significant changes come from?*

Trussell: I think the changes need to start with the owners. The owners are the ones with the power; they are the ones paying the bills. The owners need to get educated about what drugs their horses



are getting and what Lasix (Salix) does to a horse. My idea is for the U.S. to sign on to the International Racing Federation medication policy, which every other major country has signed on to. I think that would be a great start.

Hancock: I'm for the federal government going in to these 38 race jurisdictions so we can get a level playing field with zero tolerance and hay, oats, and water. I think we all need to try breeding sounder horses. Try to outcross more. All this inbreeding...you know in genetics, inbreeding brings out the weaker strains. With a horse, like we were talking about Raise a Native. When you cross that you're going to bring out the weakness there. So much of that is going on. Personally, I think overbreeding...my father thought 100 covers a year for a stallion was about right. Back then, that was 35-40 mares because you

averaged about two and half covers per mare back then, before you started palpating. If my dad was sitting here or his grandfather, he'd say overbreeding is one of the big reasons all this is happening, and I agree with that.

Keck: Arthur touched on the large books and I'm surprised to see how the genetic diversity we used to have is no longer around. It is getting harder and harder for many breeders to find a stallion to breed to. I mean, you used to have Ribot and Princequillo and Blushing Groom, and a lot of those sire lines have just died out. Now if you don't have a son of Storm Cat or a son of Gone West or of one of a half-dozen hot sire lines, you won't get a book of mares. If everyone keeps wanting these half-dozen sire lines, then you won't have any genetic diversity and you are going to see increasing inbreeding. It is harder and harder to plan matings. I don't know, Rob, do you have trouble finding something to breed your mares to every year?

Whiteley: It is hard to find proven stallions I can afford that...

Taylor: ...the yearlings sell good. (laughter)


Whiteley: Duncan just finished the thought for me. Thank you. That is exactly what I was thinking.

I am just a huge fan of focused research to get at the facts and establish patterns in an evidentiary way. We need a lot more of that. I think the veterinary community has a lot of work to do in that regard to help us out. I think it is time that, as a group, they step up and become more responsible. I'm hoping that this is a first domino, making a second or third domino that keeps a whole string of dominoes falling.

Pons: I'll be short and sweet. We all have the checkbook and we all

have the power to hire and fire all the guys on our team. If I don't like the vet because he gives the horses too much medication or the trainer that goes along with him, then maybe I can make a change.

Taylor: I think the owner is definitely the one responsible. If they could organize a democratic system so they could hire someone and put all these issues down and make goals for each issue, they could have their own voice. They could also start looking out for what most owners in most businesses do, and that's their customer. That is the guy we always forget about, the guy betting on the horses. That is the one that pays all of us.

Hancock: That is what I'm for. Protecting the customer who makes it go but also by protecting the owner by getting a level playing field, zero tolerance, and hay, oats, and water. That's the first big step. 



Agendas in Motion

BY TOM LaMARRA

Thus far in 2008, there have been two key dates in the effort to improve equine welfare and safety: May 3, the day the filly Eight Belles broke down and was euthanized after finishing second in the Kentucky Derby Presented by Yum! Brands (gr. I), and July 19, the day a congressional subcommittee put the horse racing industry under a microscope.

The process already was underway through the efforts of the Welfare and Safety of the Racehorse Summits. Those two developments, however, fast-tracked the process to the point where a comprehensive, uniform plan could be in place later this year.

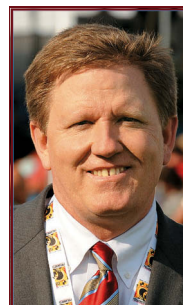
Equine welfare and safety will be the dominant topic at The Jockey Club Round Table Aug. 17 in Saratoga Springs, N.Y. The Jockey Club in early May formed a Thoroughbred Safety Committee that already has made recommendations on equine medication and shoeing.

Many recommendations regarding safety and welfare for the Thoroughbred are well underway

“Although a complete agenda and list of speakers has not yet been finalized, a large portion of the Round Table agenda will focus on equine health and safety issues,” said Bob Curran Jr., vice president of corporate communications for The Jockey Club. “We plan to update the attendees and the industry on the multi-faceted work of the Thoroughbred Safety Committee since its formation. Our most important objective is to gather additional support for recommendations we have made previously or support for any recommendations we make at the Round Table Conference so all of them can be implemented as quickly and as widely as possible.

“Good work has been done by members of the Racing Medication and Testing Consortium and by participants in the Welfare and Safety of the Racehorse Summits, but many of their recommendations haven’t yet been implemented. We hope to change that.”

Meanwhile, the National Thoroughbred Racing Association is formulating a “strategic plan” for equine health and safety,



NTRA will devise a plan and have people sign on the dotted line.

ALEX WALDROP



and will seek support from various industry organizations when the document is released, probably in early fall.

NTRA president and chief executive officer Alex Waldrop revealed the NTRA’s intentions July 18 at the National Horsemen’s Benevolent and Protective Association summer convention in Hershey, Pa. Waldrop took part in a forum on the welfare and safety of the horse.

Waldrop said the NTRA would devise the plan and “have people sign on the dotted line” in support. Though specifics aren’t yet available, the document would encompass many issues already being discussed, such as anabolic steroids, toe grabs, and jockeys’ whips.

It remains to be seen what steps will be taken to encourage widespread adoption of the strategic plan, though Waldrop used the word “prod.” It’s also unclear how the NTRA effort fits in with those of The Jockey Club and Thoroughbred Owners and Breeders Association, which formed a safety committee earlier this year.

Waldrop and others believe national adoption of recommendations is necessary given the recent congressional hearing into problems in horse racing. Officials said they doubt there will be federal action—in the form of legislation to govern racing—this year, but 2009 isn’t out of the question.

“In the near term it will have very little traction,” Waldrop said of federal legislation. “This is an election year, and they’re not going to spend a lot of time on what is not a core issue. But it could come up next year. We have a window of six to eight months to act.”

The National HBPA board of directors adopted a position paper on equine welfare and safety July 20 and endorsed creation of a National HBPA Model Rules Working Group that will gather and analyze recommendations and model rules; collect input from horsemen; deal with regulators and “help guide any such proposed rules” through the approval process; and support state and local regulatory efforts related to equine welfare and safety.

As for racetracks, Penn National Gaming, second only to Magna Entertainment Corp. in terms of number of racetrack holdings in North America, said July 15

WHAT’S NEXT...

- The Jockey Club Round Table Aug. 17 will focus on equine welfare and safety
- The NTRA will develop a “strategic plan” by early fall and intends to ask industry participants to sign on
- Various states continue the process of adopting a model rule to regulate anabolic steroids

it has developed equine health and safety initiatives it hopes to implement at all of its properties in six jurisdictions. The initiatives include limiting the height of toe grabs on front shoes worn by racehorses, endorsing rules for new riding crops for Thoroughbred jockeys, and recommending—at a minimum—adoption of the Association of Racing Commissioners International model rule on anabolic steroids.

“Penn National Gaming endorses and embraces The Jockey Club Thoroughbred Safety Committee’s recommendations, which are sound steps toward ensuring the health and welfare of our equine participants,” Chris McErlean, PNGI vice president of racing, said in a statement. “We have outlined a plan to introduce several of these recommendations at our horse racing facilities over the next few months. In addition, we will actively promote the adoption of permanent rules and regulations for these items with regulators in every one of the six jurisdictions where we conduct racing.”