



Everything you need to win

How fast has each horse run in the past?

How fast will it run today?

THORO-GRAPH answers the first question by creating accurate performance figures. By placing the life history in figures on a graph, we allow you the opportunity to attack the second question with confidence.

Each number in a sheet represents a performance rating arrived at by using time of the race, beaten lengths, ground lost or saved on the turns, weight carried, and any effect wind conditions had on the time of the race.

All this information is refined with a carefully crafted track variant down to one number for each horse in every race.

The lower the number, the better the race. With few exceptions there will be a figure for every race a horse has run for the last four years.

Thoro-Graph figures are represented numerically and in a clear graphical format that is easy to read and understand.

Each column on the graph represents a year starting at the bottom in January and ascending to the top in December.

The format makes it possible to compare horses that have run under different conditions, at different distances over different tracks, and on different days.

A handicapper or horseman can examine each horse's history, form cycle, and relative ability in looking at today's race.

With a little practice, you'll be able identify form cycles. Some horses run consistent patterns, varying from a simple good race/bad race pattern, bad race after an exceptionally good effort (the "bounce"), or more complex "circling" patterns where a horse gradually loses its form then slowly comes around toward its original level.

Using **Thoro-Graph** data it is possible to anticipate these moves and select horses which are not obvious to the general public.

We also provide sophisticated analytics that enable the handicapper to evaluate trainers and pedigrees when deciding how a horse will perform under different circumstances.

Of course there are infinite variations in how horses run and no two are alike. There are no hard and fast rules on how to interpret patterns and form cycles.

Every handicapper will come up with his or her patterns they like or dislike. Some people will only bet longshots. Others just want to have fun and cash a race no matter what the return.

Whatever your style, **Thoro-Graph** provides all you need to make you a better, more informed player.

It may take a little while to get the hang of our format, but you'll realize quickly **Thoro-Graph is everything you need to win.**

HOW TO USE Thoro-Graph

THE BASICS The lower the number the faster the race. On our scale 1 point = ~1 length at 5 furlongs, increasing to 2 lengths at 10 furlongs, 1-1/4 miles.

Each sheet has up to four calendar years, increasing in age from left to right. The last race a horse ran would be the uppermost number in the rightmost column.

For horses aged four or younger the righthand one or two columns show the best figures recorded by the dam and her progeny by surface and distance.

Five pounds of weight carried = 1 point at all distances. The figures are adjusted for weight carried in previous races but not for weights carried today. If two

horses have run a **Thoro-Graph** figure of 10 then a horse in at 115 should beat a horse at 120 by 1 point, or 1 length at 5 furlongs.

Each path out from the rail on the turn (1 path) = 1 length of ground loss. If all else is equal, in a one-turn race a horse in the 3 path runs 2 lengths farther than a horse on the rail.

The figures aren't adjusted for horses that were off poorly, stumbled from the gate, checked or were taken up in a race. Notations made next to the figures denote such instances.

Figures are denoted in quarter-point increments, i.e., 25¹ = 25-1/4, 25² = 25-1/2, 25³ = 25-3/4. A "-" in the race summary means no figure could be made.

RACE SUMMARIES **AND** **THORO-PATTERN**

01Sep18 SAR11 ft 1-1/8 1:48.94 STK750kG1	1 2 122 6.2 -1 ³ 1w4w
Ins 1st reserved, mvd out 1/2, 3-5p2nd, swung 9w1/4, rallied going away	
11Aug18 SAR8 T gd 1M 1:35.96 STK500kG1	5 3% 122 1.8* 2 ² 3w1w
broke out, 3p1st, settled outside, mvd in 5/8, ins-2p2nd, 3p1/4, evenly	
THORO-PATTERN	Sts Top% Pr% Off% X%
Dirt 5 up Oct-Dec: Prev Top -1 ³ , Off-Pr-Pr (1 ¹ , -1 ³ , -1 ³)	2346 13 37 32 18

Up to eight running lines are provided for each horse. From left to right, the running line denotes race date, track, race #, T if turf, track condition, distance, time of race, race type, finish position, beaten lengths, weight, odds, **Thoro-Graph** figure, path, and equipment and medication information. All trainer changes, not just claims, are listed.

The **Thoro-Pattern** shows how horses with a similar figure pattern have run previously. A **Top** is a figure more than one point better than a horse's previous best, a **Pair** is a figure a point better or worse inclusive than the previous top, an **Off** is more than one point up to four points slower and an **X** is over four points slower.

EQUIPMENT, MEDICATION AND TRACK CONDITION CODES

BAR	Barshoe or Al pad	FBC	Front & back caulks	my	Muddy
bl	Blinkers	L	Lasix	sy	Sloppy
f	Front bandages	B	Bute	wf	Wet fast
FC	Front caulks	N	Nasal strip	sf	Soft
BC	Back caulks	gd	Good (dirt or turf)	yl	Yielding
				❖	Synth track

HOW TO USE

Thoro-Graph

TRAINER PROFILE

We provide trainer analytics using both conventional runs-based data and also data reflecting the figures horses trained by the trainer have previously run in each category.

In both tables an unusually good stat for a particular category is shown in **bold** while a poor one will be in *italic*. The categories shown are tailored to the factors applying for the current race.

The figure studies are based on the "effective top" of each horse at the time of a race. Effective top is defined as the horse's best figure from his last six starts, or last 12 months if he ran fewer than six times during that period.

RUNS-BASED				TG FIGURE-BASED					
Starts	Win%	ITM%	ROI	Category	Starts	Top%	Pair%	Off%	X%
11165	17	45	1.52	Overall	6436	17	33	30	20
5253	27	62	1.61	4-1 or less	3531	18	35	30	17
3587	11	36	1.52	over 4-1 to 10-1	2000	16	33	30	21

Only horses that have run at least six times for the trainer are included in the studies except, of course, for the "after a trainer change" categories.

Apart from First Time Turf, comparisons are made only for races on the same surface. If a horse raced on dirt, the comparison is to his best dirt number in his previous six starts on any surface.

A Top is a figure more one point better than a horse's previous best, a Pair is a figure a point better or worse inclusive than the previous top, an Off is more than one point up to four points slower and an X is over four points slower.

JOCKEY PROFILE

Jockey data is for the last 12 months and is broken out by turf and dirt and routes and sprints. The Path column shows the rider's average position around each turn.

Category	Strts	Wins	Win%	Path	ROI
Overall	282	65	23	2.5	1.77
Dirt	160	48	30	2.9	2.07
Routes	192	43	22	2.4	1.54
Off tracks (Dirt)	31	11	35	3.3	2.04
At SA	137	36	26	2.6	2.30

SIRE PROFILE

The TGI (Thoro-Graph Index) for sires is the average of the best figure achieved by all their offspring. Statistics are based solely on North American starts. The TGI provides an at-a-glance guide to how a horse may be suited to turf or how it may handle an off-track or a

Category	TGI	Horses	Starts	Wins	Win%	ITM	ITM%	SW
Overall	11 ¹	565	6681	1148	17	3025	45	131
2-y-o	15 ¹	392	1098	187	17	505	46	29
3-y-o	12	458	2642	472	18	1197	45	67
4-y-o	10 ¹	272	1814	302	17	827	46	29
5-y-o and up	9	116	1127	187	17	496	44	6
Dirt	12 ³	521	3848	703	18	1813	47	85
Synth	13 ²	123	465	76	16	210	45	14
Off tracks	13	334	916	155	17	410	45	12

change in distance. It also shows whether a sire is likely to get precocious two-year-olds or whether his progeny will need more time to reach their full potential. SW is the number of Stakes wins recorded by the sire's progeny.

Thoro-Graph figures are calculated from data compiled from several sources including Equibase Company LLC. Data provided or compiled by Equibase Company LLC (which includes data from The Jockey Club) and/or Thoro-Graph Inc. generally is accurate but occasional errors and omissions may occur as a result of incorrect data receive by others, mistakes in processing, and other causes. Thoro-Graph Inc., Equibase Company LLC, and The Jockey Club disclaim responsibility for the consequences, if any, of such errors but would appreciate their being called to their attention.

HOW TO USE

Thoro-Graph

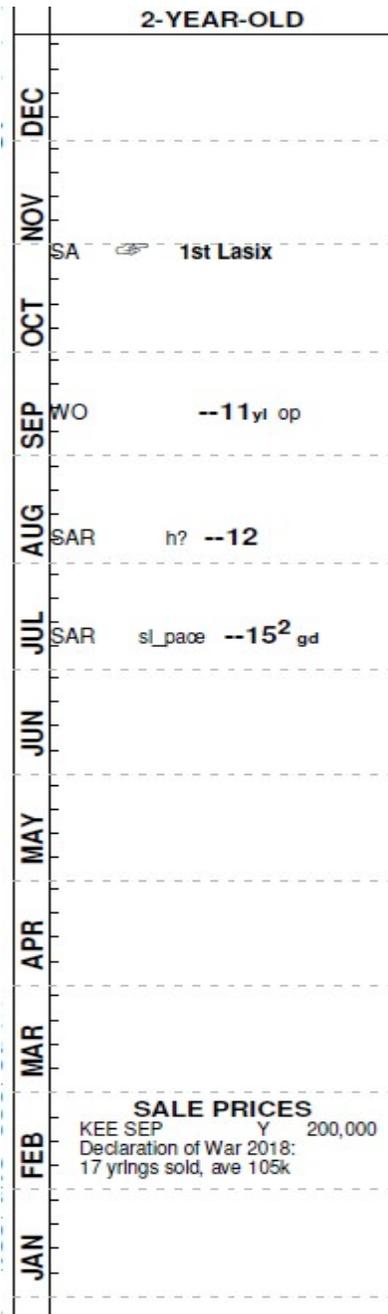
THE GRAPH

Each column represents a year and as well as a horse's figures being plotted to reflect figure and time elapsed there are notations (either by the figure or after the track) for any factors which may have affected the figure.

Races 5-1/2 furlongs and less are in italic light face e.g. *25²*, 6 furlongs to less than 1 mile are in light face (*25²*), 1 mile to 1-1/8 miles are in **bold (25²)** and more than 1-1/8 miles are in **bold italic (25²)**. Turf races are preceded by a "t". A □ means no figure could be made for the race.

THE CODES

bi, bo Bore in, bore out
 bled Bled during race
 gate Fractious gate or ran off
 h? Horse may not have been extended
 h_pace Unusually fast pace
 op- Off poorly < 2 lengths
 op Off poorly 2 < 4 lengths
 op+ Off poorly ≥ 4 < 6 length
 op++ Off poorly ≥ 6 < 8 lengths
 op+++ Off poorly 8 or more
 or dwelt
 rank Erratic or unruly during race
 s_pace Unusually slow pace
 st Stumbled start or during race
 T Big trouble during race
 time? Time of race in question
 tu Taken up, steadied, or checked



X Ran on a dead rail
 ! Buried race, faster than appears to public
 \$ Heavily bet for no obvious reason
 ● Change of equipment, medication, gelded, since last race, etc.
 ▲ Lasix on (incl 1st Lasix)
 ▼ Lasix off
 ■ Trainer change

DAM DATA

Sheets for all horses less than five-years-old will include the race records (North American from 1992 on) for each dam and her most recent foals and their best **Thoro-Graph** figure broken down by year, distance, surface and track condition. Examples are shown below. An asterisk * indicates that the horse may have raced before 1992. A dash (--) in the category means the horse did not race or we do not have figures.

2- AND 3-YR-OLDS

TAKE CHARGE BRANDI
 .12 f by Giant's Causeway (10¹)
 Strts: 11 (5w, 6itm, 4sw)

	2yo	3	4	5+
Fst	(7)7	(3)7	(-)	(-)
Off	(1)15 ²	(-)	(-)	(-)
Sth	(-)	(-)	(-)	(-)
Tu	(-)	(-)	(-)	(-)
Spr	(3)13	(1)19 ²	(-)	(-)
Rte	(5)7	(2)7	(-)	(-)

4-YR-OLDS

MEOW
 .13 f by Gio Ponti (14)
 Strts: 20 (4w, 7itm, 0sw)

	2yo	3	4	5+
Fst	.19 ²	.12 ²	.10 ²	.8 ³
Off	.12	.10 ²	.11 ²	.8 ³
Sth				
Tu				
Spr				
Rte				

SALE PRICES

The sale price for all thoroughbreds sold at public auction as a (W)eanling, (Y)earling, or (2)-year-old are shown at the bottom of a horse's 2-year-old column as averages for all the sire's progeny sold in that year.