## Class 1: Track Layout and the Basics of Wagering



## By Ken Davis

Unlike other gambling pursuits, horserace wagering is not a game of chance. The better informed the player is, the better chance he or she will have at making money. This series of classes will offer a solid foundation for both beginning and intermediate handicappers.

First of all, what is handicapping? Handicapping is the evaluation of various factors that affect the outcome of a race. Some of these factors are trainer, jockey, class, pace and speed figures. Before these factors can be evaluated, let's go to the basics.

Most major tracks are one-mile ovals. The furlong (one-eighth of a mile) is the basic unit of measurement. The most common race distance is six furlongs ( $6 / 8$ or $3 / 4$ of a mile). The furlongs are easily visible to the naked eye or through binoculars when you visit the track. They are represented by poles. The poles are named by their distance from the finish line. For example, the $1 / 8$ pole is one furlong from the finish. The $1 / 4$ pole is two furlongs ( $2 / 8$ ) from the finish. The $3 / 4$ pole (6/8) is six furlongs from the finish. This is the point where the gate will be placed for six-furlong races (the most common distance). The poles are color coded: $1 / 8$ poles are green and white, $1 / 4$ poles are red and white, $1 / 16$ poles are black and white.

click here
Most major tracks are one-mile dirt ovals with a grass (turf) course inside the main oval. In order to run distances more than a mile, many turf courses have a diagonal chute. Again, the furlong is the basic measurement, and poles are visible on the turf course as well.

Why so much emphasis on the poles? Because you will be constantly reading references to the poles in Daily Racing Form. Such comments as "steadied $3 / 8$, " "blocked $1 / 4$, " or "in tight 7/8" should produce an immediate visualization of how a race was run. Jockeys and trainers are constantly quoted after major races. Most of the time they will refer to trouble or how a horse was running at a particular pole ("I was blocked at the $3 / 8$ pole." "My horse was out of gas at the $1 / 4$ pole.").

Now that we know the basic layout of the racetrack, a few words about wagering. The most familiar wagers are win, place, show, daily double and exacta. The enclosed chart gives a good overview of most types of wagers.

## Types of Wagers

- WIN - The most common of all wagers. You are a winner if your horse finishes first.
- PLACE - You are a winner if your horse finishes first or second.
- SHOW - You are a winner if your horse finishes first, second or third.
- DAILY DOUBLE - You are a winner if your selected horses win two consecutive
races.
- EXACTA - You are a winner if your selected horses finish first and second in exact order in a race.
- QUINELLA - You are a winner if your selected horses finish first and second in any order of finish in a race.
- TRIFECTA - You are a winner if your selected horses finish first, second and third in exact order of finish in a race.
- TWIN TRIFECTA - You are a winner if your selected horses come in first, second and third in two designated races.
- PICK 3 - You are a winner if your selected horses come in first in three designated, usually consecutive, races.
- SUPERFECTA - You are a winner if your selected horses come in first, second, third and fourth in exact order of finish in a race.

For the beginner, my advice is to concentrate on win wagering and two-horse combination wagers (quinella or exacta). First, try to determine which horse is the most likely winner. A win bet, along with an exacta or quinella combination with two or more other contenders, is the way a beginning horseplayer should play a race.

An important note: Horserace wagering is pari-mutuel. Simply stated, you are betting against the other people at the track. With the information this series provides, your betting decisions will be more informed than the person standing ahead of you in line.

The remaining classes will go into much more depth regarding handicapping and wagering techniques. As you move forward through these classes, you will appreciate that there is no greater feeling than solving the puzzle that every race presents. Horserace wagering can be a source of pleasure and profit with the tools you will be taking to the wagering window.


## By Michael Hammersly

You can't put together a puzzle until you have all the pieces in front of you and understand where they go. In the case of handicapping, you need to also understand what the pieces mean. So before you can negotiate the often perilous trip to the window, it's crucial you have a solid understanding of how to read Daily Racing Form, what all the symbols mean, and how you can use them to put together the puzzle.

Let's look at the Past Performance explanation and the horse Record Boom.


The graphic gives a concise explanation of each particular symbol. But if you don't know what they mean, it can be a bit like the first parts of music lessons...you can identify the notes, but still can't play a tune.

At the top you're given the horse's name and its particulars - color, sex, age, month of birth under which come the pedigree, breeder and trainer. To their right come the weight assignment for that day's race, and any medication. On the far right is the horse's record: career, last two campaigns, turf, wet tracks, at this track and at the distance of today's race. Under the horse's name is the owner and jockey. If the race is a claimer, the claiming price is to the right of the jockey.

Each Past Performance line paints a picture of the horse's last race. From left to right you're given the date, race number, track, track condition and distance. Then come the fractions of that race, followed by the class of the race which will include claiming price, stakes, and restrictions by age, sex and class. This is the area most open for interpretation. A standard class ladder has stakes races at the top (Grade 1, Grade 2, Grade 3 and ungraded), followed by allowance races, then claiming races (by price), then restricted claiming races, then maiden races and maiden claiming races. Other restrictions, such as for state-breds, further narrow the field. Maiden races are for horses who have never won, and horses almost always start their careers at this level. Once they've "graduated", they can go on to the other levels, which are all for winners.
average Kentucky Derby．After that come the post position and the horse＇s position during the running of the race．Depending on the distance，these positions are taken at different points on the track，except for the final two margins：the second－to－last margin is always at the eighth pole，and the final is always at the wire．You get the horse＇s position and either lengths behind the leader at each point，or if the horse is on the lead，the lengths he is in front．

Following that comes the jockey of that day，medication，weight and equipment．Then come the odds（an asterisk indicates he was favored）followed by a Daily Racing Form speed rating and track variant．Then come the first three finishers and margins，followed by a bried comment line and the number of starters in that race．

Everything you need to get to the window with the right number on your lips is included in Daily Racing Form＇s Past Performances．However，the PPs require considerable understanding and study．The bottom of this graphic will give more details about many of the specifics and symbols you will frequently encounter in the PPs and charts．Hopefully，the pieces of this puzzle can come together for you．．．in the form of winning tickets．

## SYMBOLS

| $\begin{aligned} & \text { 國 }= \\ &= \\ & \text { 戒 }= \end{aligned}$ | Inver dirt track <br> Disqualified（symbol located next to odds and in company line） Dead－Heat（symbol located in company line if borses are among first three finisbers） |  | Dead－Heat（symbol used next to finish position） <br> Race for 3－year－olds and up <br> Foreign race（outside of North America） <br> Race for stato－breds only <br> Restricted race for borses who meet certain conditions | $\begin{aligned} & \text { © } \\ & \text { ¢ } \\ & \text { W } \\ & + \\ & + \end{aligned}$ | $=$ $=$ $=$ $=$ | Race for fillies，or fillies and mares <br> Main turf course <br> Inner turf course <br> Race taken off tarf <br> About distance <br> Start from turf chute |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Back to Class Next Class：Spotting the Winners

## Class \＃3：Handicapping Basics：Spotting the Winners



## By Brad Free

four basic handicapping principles－condition，class，speed and pace．

Most winners are in relatively sound physical condition，and racing at an appropriate class level．Usually they will have run as fast as their competition，and the probable pace of the race suits their style．

The first characteristic of a winner is good current condition－if a horse is not＂in form，＂ everything else goes out the window．

Determining condition can be a simple matter of evaluating a horse＇s recent races．Has the horse been finishing in the top half of the field？If he is a front－runner，has he been showing speed？If he is a late runner，has he been gaining ground on the leaders？

For horses returning from layoffs of a month of more，or who never have raced，workout patterns are the key to condition．Are the workouts regularly spaced，every five to eight days？Are they increasing in length？

Not Surprising＇s sharp recent races illustrate a horse who is＂in form．＂

## cats <br> Sample

Gold Land's subpar recent races illustrate a horse who is "off form."

## catm Sample

Class is the next point of evaluation - is the horse running at a level where he previously has been competitive? Or, has he recently improved, enough to take his game to a higher level? Class is closely linked to current condition, and sharp horses frequently move up the ladder.

The class of a claiming horse usually is well-established by their 4-year-old year, but bettors should not shy from sharp horses moving up. A \$20,000 claimer may be competitive for double that price in a month. To determine if an older horse fits at today's class level requires a yes answer to one of two questions: Has he previously been competitive at the level? Or, is he coming off a big effort that suggests further improvement?

Determining class in lightly raced horses requires projected improvement. Young, well-bred horses tend to improve, especially in the hands of a top horseman.

## Click for Sample

The next point of comparison is speed. Relative to the competition, is the horse fast enough to win? The most popular standards of comparison are Beyer Speed Figures, which note how fast a horse ran, and take into account the fluctuating speed of a racing strip.

Figures earned under circumstances similar to the race at hand are the best measures of comparison. For horses running in a route, previous route figures may indicate the horse's likely speed today.

The generalization allows the handicapper to compare horses, as in the example below.

## Sample

## cate <br> Sample

Dramatic Gold generally earns a Beyer Speed Figure in the 104-105 range. Honour and Glory earned a 111 in the one-turn Metropolitan Handicap, but has not topped 103 around two turns. Theoretically, in a two-turn race, Dramatic Gold is a faster horse than Honour and Glory.

Handicapping, of course, is more complex than comparing numbers. The final category is pace, building block for the expression "pace makes the race."

When a race attracts several horses with similar running styles, horses with the opposite style may hold an advantage. For example, races with several speed horses often favor horses with a late-closing style. The Kentucky Derby often provides a keen example of the

In the 1996 Kentucky Derby, front-runners Honour and Glory, Matty G and Unbridled's Song hooked up early, and burned each other out. The race set up nicely for late runners Grindstone, Cavonnier, and Prince of Thieves, 1-2-3 finishers after racing far back.


In races in which most of the field are late runners, the lone front-runner often carries a huge advantage, as in the 1988 Derby. Winning Colors established an easy pace and never looked back. Note the difference in fractions between the ' 96 Derby and the ' 88 Derby.

## Sample

Generally, the more speed horses there are in a race, the greater are a closer's chance to win. Conversely, fewer front-runners mean those who do have speed may hold an edge.

Condition, class, speed and pace. They are the cornerstones of the handicapping puzzle.
Back to Class Next Class: Solving the Handicapping Puzzle


## By Brian Mulligan

The handicapping puzzle starts with the conditions of the race, including distance, purse, age categories, and weight which qualifies a horse for entry into a particular event. By evaluating the past performances of each horse, handicappers attempt to pinpoint speed, form, pace style, class and consistency of the entrants.

The age-old adage "pace makes the race" is just as true today as it was at racing's inception. How the race sets up is of utmost importance, as from there contenders and pretenders can be separated. By evaluating each entrant's style and speed, a reasonable concept of how the race will set up starts to crystallize. By comparing early fractions or the races of each horse in today's race, a visualization or projection of where each horse will be at each juncture of the race can be theorized upon. If there are seven horses in the event, and one has superior early speed and he's proven at the distance, he becomes one of the best chances in racing. If there are three or four speed horses in a race that show similar ability to pressure the first fraction of a race, a horse that prefers to make one big run from off the pace can sometimes be in the right spot at the right time. A lone speed trip is a handicapper's dream, but the key is to discovering the lone speed BEFORE the race.

Current form is obviously important, but it can be very tricky. It is demanding for a horse of lower status to hold sharp form for a long period of time. A tough, all-out effort can knock any horse off his game - even high-caliber types - but good horses hold their form longer, thus emitting class. And with the present-day saturation of racing, horsemen can point to a particular time of year or meeting and have their charges primed off extended layoffs. Fresh, well-trained animals from stables that have proven ability with comebackers present some of the most lucrative opportunities in the game today.

Class can mean different things to different handicappers and prove elusive in the evaluating process. If a horse has beaten or run very close to better animals than his present foes, or he's dropping to a level that he's been successful at in the past, he fits solidly class-wise in the race. Class can also be directly related to speed, in that the faster a horse runs, the better class of horse he can beat. Sharp horses can move up the class ladder beating higher-priced foes or intrinsically classier stock if things break their way.

Good handicappers try to assess the pace of the race, evaluate the class of each horse, take into account current good form, define if a horse can handle the distance and or
of outcome.

When all is said, done and scrutinized, success is based on visualizing how the race will set up, projecting where the contenders will be inside the 16 th pole, and wagering properly with a "maximum gain" objective. From there, the speed might prevail untouched or the class horse may prevail in a grueling drive, or the rank outsider might wake up unexpectedly, but by learning how to read the Daily Racing Form, anticipating where each entrant will be at every call in the race, one is on the right track to picking some winners and thereby enjoying the game to its fullest.

Back to Class Next Class: By The Numbers


## By Mark Schramm

An electronic board flashes constantly as numbers continually change. An announcer calls out equipment changes, overweights and scratches, while your racetrack-experienced buddies are breathing all these details and talking up - or dissecting - one another's selection. You're a greenhorn to the racing game, and the information overload begins to take its toll; a voice tells you to stick to being a baseball fan.

Baseball! Ugh! It's not the interactive game that racing is, where you, the player, influence those numbers appearing on that blinking alien - the tote board - located across the track from you. When the day comes that you can influence what pitch your favorite major league hurler will throw, then you have permission to return to baseball.

When you make a wager in racing, you affect the odds. The more money bet on a horse, the lower that horse's odds become. But how are those odds arrived at before the betting action kicks in? The morning-line maker sets the odds for all the day's starters based on their class, the projected pace, and how well they fit the conditions of the race. Other factors include who the trainer is, any equipment changes and the breeding. Perhaps the least important factor in setting the odds is the jockey. While jockeys are vastly underrated as athletes, they rarely can win a race without a willing horse.

Class is arguably the No. 1 factor in making a morning line. Horses who have been running vs. a higher level of competition have proven through the years they will outrun rivals who have been beating opponents at lower condition levels. For example, an unconditioned allowance race attracts more accomplished horses than a conditioned allowance race. Therefore, a horse moving from an unconditioned allowance fray into a conditioned allowance race, is likely to go off at low odds.

Whether a horse is moving up or down in class, the pace is a key factor in setting the odds. Horses who like to run on the lead from the start are more effective when allowed to do so without being under pressure from another horse. The "lone speed" horse warrants betting action and therefore is likely to go off at lower odds than a speed horse who is running against two or three other horses who also want to be on the lead. Of course, a closer, placed in a race with three front-runners, warrants extra attention, and that runner's odds will be set low. Why? Because the faster the pace, the more effective a horse with a closing style usually becomes.

After taking into account a horse's class, how well he or she fits the conditions and the overall pace scenario, it is time to evaluate the trainer. Are there equipment changes being made? Is there a change in jockeys? And, most importantly, does that trainer win races?

With this basic knowledge on file, you are now ready to take part in the sport of thoroughbred racing. May the horse be with you!

## Handicapping - An Overview



Even though it is intimately interwoven with such factors as pace and track bias, trip handicapping is arguably the most subjective facet of the game. If you need proof of this, just watch and listen to the goings-on at any replay monitor immediately after a race has been run anywhere: Five players will be arguing about what they saw, to the point where none of them will have a clue as to what actually happened. Of course, this is why some people take "trip" handicapping to mean that its practitioners are under the influence of some form of narcotic.

Oh, well. Horseplayers are used to being misunderstood.
The purpose of such tools as Beyer Speed Figures and feet-per-second velocity pace ratings is to objectively quantify horses' performances. The player who carries that type of logical and analytical "left-brained" mindset over to trips, however, is missing the whole point: Evaluating trips is largely a right-brained exercise that calls on a player's visual and descriptive skills.

There's a common misconception that trip handicappers are always looking to bet on horses who had, for want of a better term, a "tough trip" in their last start, which brings up Litfin's First (and Only) Unbreakable Handicapping Rule:

## DON'T BELABOR THE OBVIOUS!

As with any other piece of handicapping information, if everyone in the grandstand knows a horse suffered through a nightmarish trip last time out, then that trip has no value whatsoever in terms of wager-value. So take a deep breath and relax, comforted by the knowledge that you need not scribble furiously as the race is being run, in an attempt to record every detail of every horse's journey. After all, your friendly Daily Racing Form trackman watches races and reports on troubled trips for a living, so whenever a horse gets pinched back at the start, checks out of tight quarters on the turn and finishes fastest of all through the stretch, a detailed account invariably winds up in the trouble line of the past performances.

Everyone will know about it, and the horse will be odds-on.

What good is that?
Here's an example:

Medal Winner broke slowly and made up five lengths or so during the stretch run on 25Sep95, took a drop in class next time out, was pounded to 11-10 favoritism, and finished
second. The reluctant gelding raced in traffic on 11May96 and just missed by a head, was bet to 2-1 favoritism next time out, and came up short again, beaten five lengths by Personnel Director.

There's a pattern there. A glance at Medal Winner's career box reveals he's finished in the money in 19 of 33 starts while winning only twice. Another glance at his comment lines reveals he's usually off slowly, wide, and in traffic. The crowd often expects that today is the day he'll finally get the job done - he only needs a clean trip. But Medal Winner simply lacks the positional speed and/or athleticism to get a clean trip! (The PPs you see here were for the first race on June 1, 1996, and he ran second again as the chalk.)

Not coincidentally, here are the past performances for Personnel Director, who twice defeated Medal Winner in May:


Check out the career box: 11 wins against only one runner-up finish! This gelding overcomes trouble, but Medal Winner succumbs.

So a good trip handicapper is not overly concerned with keeping track of slow starts, sharp steadying, and other easy-to-see forms of severe trouble, because everyone will have access to that information when the victimized horses race back. A good trip handicapper seeks instead to focus on the subtler aspects of trips that contain a good degree of wager value down the road. We can access this type of information in three ways: at the track, through videotaped replays, and by examining the official result charts published in Daily Racing Form and its sister publication, National Charts Weekly.

At the Track: Actual reality. What a concept. And what a big edge on-track players can get on their simulcast brethren! Unlike simulcast bettors, who are at the mercy of televised systems, on-track players see what they want when they want, and they see plenty of things their off-track competition never get a look at.

At the track, find a comfortable spot that offers good sightlines, and don't stop watching after the first couple of horses cross the finish line. Keep your binoculars trained on the field to see who's galloping out full of spit 'n vinegar and who's pulling up gingerly. You'll catch good prices on sprinters stretching out after galloping "out well" past the finish and, likewise, you'll eliminate short-priced losers who pulled up worse for the wear last time.

Of course, while you're at the track be sure to avail yourself of the head-on replays, which often show what's happening to the horses in the rear of the field -- the horses who are out of the picture on the typical pan shot most players see.

Let's Go to the Videotape: We're looking for troubled trips, sure, but we're also looking for horses with potential. In maiden sprints, we're looking for first-time starters with long and lanky builds who will eventually stretch out to routes. They will win despite inferior Beyer Speed Figures and pay boxcars. In dirt races for lightly raced runners, we're looking for horses with high-stepping grass strides that will appreciate a switch in surfaces.

We're looking for the kind of athletic ability that can't be transcribed onto the printed records of horses' form. Did that sprinter change leads smoothly when straightened into the stretch, or did he remain on his left (incorrect) lead after coming out of the turn? The inability to change leads will be a severe liability to any sprinter attempting a stretch-out.

We're looking for subtle forms of trouble: horses who, though not forced to check, were caught in between rivals with little maneuvering room for an extended period; or horses who showed a dislike for being wedged between the rail and another rival; or horses who
were throwing their heads around in an attempt to avoid clods of dirt being kicked back in their muzzles; or horses who won with their ears pricked forward with demonstrable reserves of speed and power.

The Charts: OK, so you have a life. You don't get to the track more than once a month or so, and you don't really have the time or the inclination to tape the nightly replay show from your circuit.

Take heart. With a file of result charts you can still be a trip handicapper. Examine the following chart, shown here without the accompanying footnotes, and tell me: What observation can we make about the winner's trip? And what can we say about the runnerup?

## Sample

We don't need footnotes to realize Don't Even Ask enjoyed a perfect trip. Using the positions and beaten lengths to develop a mental picture of the race, we "see" that the winner was three lengths behind a head-to-head pace duel after the first quarter, and was also three lengths ahead of the horse running in fourth position at that point. Translation: Don't Even Ask was in the "garden spot," stalking a duel while running totally free and clear of potential trouble. Things remained that way into the turn, as the winner crept to within a length of the duelers while still three lengths clear of the rest of the field. He then drew off quickly to a four-length lead over the spent pacesetters, and widened to the finish...a perfect, totally unstressful trip - one that might be overbet next time because it resulted in a good-looking running line.

Carter's Vision, meanwhile, had a tough trip as part of the duel, but held on to finish second while her early tormentor, Three Decades, backed up to last. Even though Carter's Vision didn't win the race, she "won" the pace duel, which could be an important factor if she catches a field without any early pace pressure in the near future.

As stated earlier, trips are closely related to pace and track bias. I make it a practice to extrapolate the fractions of each race from my charts and look for horses who moved into the most demanding segments - known as the "move into a hot pace." I also use the running lines in conjunction with the footnotes to determine whether a path and/or runningstyle bias influenced a day's results. Unsure whether five straight front-running victories by logical winners were due to a bias or merely a coincidence? Examine the running lines of the horses trailing the winner: If there wasn't much change in positions taking place, then chances are good there was a bias; but if horses were rallying from far back to finish second and third, perhaps the track was playing more honestly than a cursory glance would suggest.

Back to Class Next Class: Speed Handicapping


The most important single question in handicapping is this: Which horse can run the fastest?

The final times of horses' performances generally reflect their relative ability. A thoroughbred who regularly runs six furlongs in 1:11 is better than one who runs in 1:12. Ye , this seemingly straightforward factor is extremely complex, because racing surfaces can vary so much from day to day or from track to track. If the Del Mar racing strip is two seconds faster than that at Arlington Park, a horse who runs in 1:11 at the California track is actually slower than one who runs in 1:12 in Chicago. The many different distances of thoroughbred races add further complexity to the comparison of horses' raw times.
turn will be adversely affected. Such circumstances must be taken into account to judge how well a horse performed. Moreover, the popularity of speed handicapping has inevitably depressed the payoffs of top-figure horses. A handicapper must have other weapons in his arsenal, too. But an understanding of speed figures is an essential for anyone who hopes to beat the game.

Back to Class Next Class: Pedigree Handicapping

# Class <br> \#8: Pedigre 

## By Ed Fountaine

What is the most important quality to look for in a thoroughbred racehorse?
"Speed, speed and more speed," the great breeder H.H. the Aga Khan said in the early 1900s. Long before that, when four-mile heats were the rule, stamina was obviously in demand. Soundness - the ability to withstand training and racing without injury - is always at a premium.

But while speed, stamina and soundness are all important, the simple fact is this: The modern thoroughbred is the product of 300 years of directional breeding with one aim in mind: Competitiveness ... the will and ability to win races.
"Breed the best to the best, and hope for the best," is the dictum. Which is why pedigrees - detailed records of which have been kept since the General Stud Book was first published in England in 1791-are the foundation of the sport.

## ORIGINS OF THE THOROUGHBRED:

Many trace the beginnings of thoroughbred racing to King Charles II of England, who in 1665 inaugurated the King's Plate at Newmarket, consisting of three four-mile heats for 6-year-old horses carrying 168 pounds. (Racing began in the American colonies a year later on Long Island, near the site of the current Aqueduct racetrack.) The King's Plate was such a success that future kings established other plate races, which became very popular events.

To produce horses who could carry their speed over a distance, through the late 1600s to the mid-1700s, English breeders imported stallions from the Near East, noted for their endurance, and bred them to local mares, of a breed called Hobby horses (or "Hobbies"), known for their quickness.

All thoroughbreds today descend from three of these Oriental stallions: the Darley Arabian (a colt of Arab origin, foaled in 1700), the Godolphin Arabian (of Berber origin, 1724) and the Byerley Turk (of Turkish origin, 1680). Each of these traces to his current progeny through a single grandson or great-great grandson born in England in the mid-18th century: the Darley Arabian through Eclipse (a foal of 1764); the Godolphin Arabian through Matchem (1748); and the Byerley Turk through Herod (1758).

At about that same time, the first English classic races were established: the St. Leger in 1776; the Oaks in 1779; and the Derby (pronounced "Darby") in 1780.

## SIRE LINES TODAY:

Of the original thoroughbred sires, the Darley Arabian-Eclipse line is by far the most important, as they are the direct male ancestors of upward of 90 percent of all stallions
standing at stud today.

Perhaps the most important descendant of Eclipse is Phalaris (1913), through the stallions Native Dancer (1950) and Nearco (1935). Not only were both great racehorses (winning 35 of 36 combined starts), but Native Dancer and Nearco also are the two most infuential sires of the 20th century. Both of their lines are noted for their exceptional speed.

Native Dancer, a great-great grandson of Phalaris, won 21 of 22 starts, with his only loss coming by a head in the Kentucky Derby. He is the sire of Raise a Native and the broodmare sire of Northern Dancer (both foals of 1961), whose lines are the two most popular in pedigrees today.

Raise a Native and Northern Dancer are both are known as exceptional sires-of-sires: Raise a Native, through sons like Mr. Prospector, Alydar, Exclusive Native and Majestic Prince; Northern Dancer, through sons like Nijinsky II, Danzig, Dixieland Band, Lyphard, Nureyev, Sadler's Wells, Storm Bird and Vice Regent.

Raise a Native's good grandsons at stud include Alysheba, Saratoga Six, Strike the Gold, Affirmed, Majestic Light, Conquistador Cielo, Crafty Prospector, Fappiano, Forty Niner, Gone West, Gulch, Miswaki, Seeking the Gold and Woodman. Among Northern Dancer's grandsons are Chief's Crown, Deputy Minister, Theatrical, Storm Cat, Summer Squall, Baldski, Caerleon, Green Dancer and Shadeed.

Nearco, a grandson of Phalaris, won all 14 of his starts in Europe and sired several of the most important sires of the late 20th century. These include Nearctic, the sire of Northern Dancer and another important stallion, Icecapade; and Royal Charger, wh ose son Turn-to is the ancestor of such top sires as Best Turn, Cox's Ridge, Hail to Reason, Halo, Devil's Bag, Mr. Leader, Roberto, Kris S., Stop the Music, Sir Gaylord and Sir Ivor.

Nasrullah is probably Nearco's most important son. Imported to Kentucky from Ireland in 1950, he was the leading sire in North America based on earnings five times, and he sired champion Bold Ruler, who topped the sire list eight times, seven of those in a row.

Bold Ruler's descendants who have had a major impact at stud include Secretariat (primarily as a broodmare sire), Seattle Slew (the sire of such stallions as A.P. Indy, Capote, Slew o' Gold and Slewpy), Bold Bidder, Bold Ruckus, Raja Baba and What a Pleasure.

In addition to Bold Ruler and his line, other stallions descended from Nasrullah include Nashua, Fleet Nasrullah, Gummo, Caro, T.V. Lark, Blushing Groom, Mt. Livermore, Rahy, Never Bend, Mill Reef, Riverman, Irish River, Naskra and Star de Naskra.

The Phalaris line also includes Tom Fool and his son Buckpasser, a leading broodmare sire whose daughters have produced more than 140 stakes winners.

Other branches of the Darley Arabian-Eclipse line have produced sires whose names are still prevalent within the first four or five generations in modern pedigrees. In contrast with the Phalaris line, which tends toward speed, many of these impart stamina.

Through St. Simon (1881): Ribot, Arts and Letters, Tom Rolfe, Hoist the Flag, Alleged, Graustark, Key to the Mint, His Majesty, Pleasant Colony, Princequillo, Prince John, Round Table, Gallant Man.

Through Bay Ronald (1893): Hyperion, Alibhai, Forli, Tudor Minstrel, Vaguely Noble, Alibhai, Noholme II, Nodouble, Herbager, Grey Dawn II.

Through Swynford (1907): Blenheim, Mahmoud, The Axe II, AI Hattab, Donatello II,

Through Teddy (1913): Sword Dancer, Damascus, Private Account, Personal Flag, Private Terms, Time for a Change, Bull Lea, Tantieme, Relko.

Two other sire lines tracing to Eclipse, through Himyar (1875), are hanging by a thread: 1) that of the great turn-of-the-century American racehorses and sires Domino, Commando and Colin, which is represented by Ack Ack's son Broad Brush; and 2) the line of Rough'n Tumble's sons Dr. Fager and Minnesota Mac, represented by Dr. Blum, Great Above and Holy Bull.

Blue Larkspur and Double Jay are two other important sires from this line, but their names live on principally through their daughters and granddaughters.

The most important sire line today descending from the Goldolphin Arabian through Matchem is that of Man o' War (1917). Although Man o' War's line will live on for many years through the daughters of his son War Admiral, the sire line itself, which produces a surfeit of speed, is mostly dependent on sires descending from Man o' War's greatgrandson Intentionally, especially through In Reality. These include Tentam, Believe It, Known Fact, Relaunch and Valid Appeal. Another important descendant of Matchem is Discovery (1931), whose daughters produced both Native Dancer and Bold Ruler. The Byerley Turk-Herod sire line clings to live through a small number of sires descended from the great French stallions Tourbillon (1928) and his son Djebel through the likes of Klairon, Luthier, Blakeney, Crozier and Ahonoora.

## BREEDING TERMS:

SIRE: A horse's father (also known as a STALLION). DAM: A horse's mother.

BROODMARE SIRE: The sire of a horse's dam (also known as DAMSIRE).
TAIL MALE: A horse's direct sire line.

FEMALE FAMILY: The direct female ancestors of a horse's dam (also known as the horse's BOTTOM LINE).

CHEF-DE-RACE: An influential sire (used to compute DOSAGE figures).

DOSAGE SYSTEM: A mathematical method, based on the number and type of chefs-derace in a pedigree, of figuring a horse's inclination toward speed or stamina. (See below for an in-depth explanation.)

FOUNDATION MARE: A dam who is the common ancestress of several important sires and/or female families.

BLUE HEN: A dam that has produced at least two major stakes winners and/or stakes producers.

FOAL: A newborn horse; also, when used as a verb, to give birth to a foal.
FOAL CROP: The group of horses sired by a stallion in a single year.

WEANLING: A horse in the first year of its life. A horse foaled in, say, March will be a weanling until the following January 1, when all horses turn a year older.

YEARLING: A horse in the second year of its life.

PINHOOK: The strategy of buying a weanling or yearling, then selling them at a later time, usually at an auction, for a higher price. Those who pinhook are called, of course, PINHOOKERS.

INBRED: When the same ancestor (sire or dam) appears more than once in a horse's pedigree, especially within the first four or five generations. (Virtually all horses are inbred if you go back far enough in their pedigree.)

OUTCROSS: When a horse has no inbreeding, especially within the first four or five generations.

NICK: A combination (or CROSS) of two family lines in a pedigree that tends to produce successful runners.

FULL BROTHER, FULL SISTER: When two horses share the same dam and sire.
HALF-BROTHER, HALF-SISTER: When two horses have the same dam but different sires.

THREE-QUARTER BROTHER, THREE-QUARTER SISTER: When two horses have the same dam, and their sires were sired by the same stallion.

## DOSAGE:

Dosage is a theoretical means of mathematically assessing a horse's genetic inclination toward speed or stamina based on the number and type of chefs-de-race (influential sires) in the first four generations of a horse's pedigree.

The concept of dosage was originated in the early 1900s by Lt. Col. Vuillier, a retired French army officer who worked as a pedigree consultant for H.H. the Aga Khan. Using a complicated mathematical formula, Vuillier established the preferred percentages (i.e., dosage) for certain chefs-de-race, reflecting the number of times those sires should appear in the first 12 generations of a horse's pedigree.

The concept was further refined in the 1950s by the Italian pedigree expert Franco Varola, author of "Typology of the Racehorse," who classified the chefs-de-race into five categories (later expanded to seven), according to the tendencies they passed along to their offspring.

Dosage, in its current variation, was popularized in the early 1980s by Daily Racing Form "Bloodlines" columnist Leon Rasmussen, based on research done by Dr. Steve Roman, a petro-chemical engineer and longtime thoroughbred enthusiast, whose ground-breaking series of articles, "Dosage: A practical approach," was first published in DRF in 1981.

The list of chef-de-race sires consists of those originally described by Varola (mostly European), later modified by noted turf writer Abram S. Hewitt to include important American sires, and expanded over the years by Rasmussen and Roman. The magazine "Owner-Breeder" also maintains a chef-de-race list, with some differences from Roman's, but the list devised by Roman is recognized by the major on-line providers of pedigree information, such as The Jockey Club Information Systems and Bloodstock Research (BRIS).

Chefs-de-race are divided into five aptitude classes - brilliant, intermediate, classic, solid and professional - ranging from pure speed to plodding stamina. (These categories also
reflect the rate of development, ranging from precociousness to late maturity.) Some chefs-de-race are split between two classes, and the influence of a chef-de-race appearing in any generation is twice that of a chef in the previous generation.

These five categories form a horse's dosage profile (DP). A chef-de-race in the horse's first generation (i.e., his sire) is assigned 16 points. Chefs-de-race in the second generation (i.e., the grandsire and broodmare sire) are assigned 8 points; those in the third, 4; and those in the fourth, 2.

Based a horse's dosage profile, mathematical formulas are used to compute his dosage index (DI) and center of distribution (CD).

To obtain the DI, add together the chef-de-race points in the left half (speed wing) of a horse's DP - the brilliant points plus the intermediate points plus half the classic points and divide this by the toal points in the right half (stamina wing) of the DP - one-half the classic points plus the solid plus the professional.

To obtain the CD, multiply the brilliant points by two, then add the intermediate points, then subtract from that figure the solid points and the professional points times two. This figure is then divided by the total number of points in the DP.

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This is the four-generation pedigree of Cigar, a son of the sire Palace Music out of the dam Solar Slew, by Seattle Slew. The number behind each sire and dam is the year it was foaled; for example, Cigar's grandsire, The Minstrel, was born in 1974. Chefs-de-race appear in capitals, followed by the classification; for example, NORTHERN DANCER is classified BC: split between brilliant and classic.

Cigar's dosage profile is 7-2-10-1-0. He gets four brilliant points from broodmare sire Seattle Slew, two from Northern Dancer and one from Turn-to. He gets one intermediate point each from Princequillo and Turn-to. He gets four classic points from Seattle Slew, four more from Prince John and two from Northern Dancer. And he gets a single solid point from Princequillo. There are no professional chefs-de-race in the first four generations of Cigar's pedigree.

For Cigar's DI: $7+2+5=14$ divided by $6(5+1)=2.33$.

For Cigar's CD: $7 \times 2=14+2=16-1=15$ divided by $20(7+2+10+1)=0.75$.

Theoretically, the higher the dosage numbers, the more inclined a horse is to speed over stamina. A preponderance of points in the speed wing of a DP will result in a high DI an CD, while points in the solid and professional classes will lower the dosage. The center, classic category indicates the perfect blend of speed and stamina.

Statistical studies have shown a sharp drop-off in the number of stakes winners at a mile and a quarter or longer who have DIs above 4.00 and CDs above 1.25. This leads to the most popular application of dosage: The "dual-qualifier" dosage system for handicapping the Kentucky Derby.

To be a dual-qualifier, a horse must 1) have a DI of 4.00 or under; and 2) have been the highweight, or ranked within 10 pounds of the highweight, on the Experimental Free Handicap listing the previous year's top 2-year-olds, or have been a champion in another country.

Rasmussen developed the dual-qualifer system for the Kentucky Derby in 1984, after research revealed that no Derby winner since 1929 had a DI over 4.00 or a CD over 1.25 (these are referred to as the "guidelines numbers"). That year, Swale, with a DI of 1.93, won, while Althea (the stronger half of the favored D. Wayne Lukas-trained entry), whose DI was well over 4.00, finished 19th.

The only horse since then to win the Derby with a DI over 4.00 was Strike the Gold in 1991. (His sire, Alydar, was later classified a chef-de-race, lowering Strike the Gold's DI from 9.00 to 2.60.)

As for the second part of the dual-qualifier system, 2-year-old form historically has played a large part in picking Derby winners. (No Derby winner since Apollo in 1882 was unraced at 2.) This where the Experimental rankings come in, which are based on the horses' stakes performances as 2 -year-olds. Since 1972, the only Derby winners who were not ranked at the top or within 10 pounds of the top on the Experimental were Sunny's Halo (who was, however, champion 2-year- old in Canada), Winning Colors, Sunday Silence, Strike the Gold, Lil E. Tee and Grindstone. (All of those, however, did run at least one impressive race at 2.)

Dual-qualifiers who have won the Derby since 1984 include Ferdinand (\$37.40), Alysheba (\$18.80), Unbridled (\$23.60), Sea Hero (\$27.80), Go for Gin (\$20.20) and Thunder Gulch (\$51).

The list of dual-qualifiers for the Kentucky Derby is published in DRF when the Experimental Handicap is released in February, and again on the first Friday in May, the day before the Kentucky Derby.

## HANDICAPPING WITH PEDIGREES:

Using pedigrees to pick winners is a great way to get good prices on horses you might not bet using other, more timeworn handicapping methods. Pedigree handicapping is based on the simple fact that in some situations - horses racing on grass or wet tracks, for example - breeding can be the most important factor. Certain sires and sire lines produce horses which thrive on turf and/or in the mud, and their descendants can improve dramatically when they try the new surface for the first time. Since this ability often isn't reflected in the past performances - perhaps the horse did not run well in his recent races, or he is moving up in class - such horses offer potential overlays in the betting. Below are some sires and sire lines whose offspring are suited for grass and off-tracks. Note that Daily Racing Form lists three sires in every horse's pedigree above its past performances:
sire, sire's sire, and damsire.

Turf

The Northern Dancer line has long produced sires whose offspring excel on turf:

- Be My Guest
- Caerleon
- Chief's Crown
- Compliance
- Dahar
- Danzig
- Dixieland Band
- El Gran Senor
- Ends Well
- Far North
- Fred Astaire
- Green Dancer
- In the Wings
- Lomond
- Lyphard
- Lypheor
- Manila
- Moscow Ballet
- Nijinsky II
- Northern Baby
- Northern Jove
- Nureyev
- Opening Verse
- Polish Precedent
- Sadler's Wells
- Shadeed
- Sky Classic
- Sovereign Dancer
- Storm Bird
- Sword Dance
- Theatrical
- The Minstrel
- Wolfhound
- Zilzal

Descendants of unbeaten European champion Ribot not only run well on grass, but handle long distances and off-tracks, too. Here are some Ribot-line sires:

- Alleged
- Cherokee
- Colony
- Cormorant
- Graustark
- His Majesty
- Hoist the Flag
- Key to the Mint
- Lac Oiumet
- Majesty's Prince
- Pleasant Colony
- Roanoke

Hail to Reason has been an important sire of sires of grass and distance horses, especially through his sons Halo and Roberto:

- Cure the Blues
- Devil's Bag
- Dynaformer
- Halo
- Hawkster
- Kris S.
- Lear Fan
- Roberto
- Silver Hawk
- Stop the Music

The imported stallion Nasrullah has been an important source of grass runners. Some of his descendants at stud include:

- Blushing Groom
- Caro
- Caveat
- Cozzene
- Golden Act
- Irish River
- Mill Reef
- Rahy
- Riverman
- Seattle Slew
- Secretariat
- Sir Richard Lewis
- Spectacular Bid
- With Approval

Other sires worth keeping an eye out for in a grass pedigree:

- Affirmed
- Al Hattab
- Alydar
- Exclusive Native
- Explodent
- Forli
- Grey Dawn II
- Herbager
- Majestic Light
- Miswaki
- The Axe II
- Vaguely Noble


## Off-tracks:

## Class

Few if any sire lines have consistently produced better mudders than that of In Reality. His sons and grandsons include:

- American Standard
- Believe It
- Believe the Queen
- Judge Smells
- Known Fact
- Proper Reality
- Relaunch
- Skywalker


## Strategi

- Smile
- Valid Appeal
- Waquoit
- World Appeal

Other sires and sire lines known to produce exceptional off-track horses:

- Bailjumper
- Carson City
- Conquistador Cielo
- Cox's Ridge
- Crafty Prospector
- Danzig
- Deputed Testamony
- Deputy Minister
- Dixieland Band
- Fappiano
- Great Above
- Gulch
- His Majesty
- Mr. Leader
- Mr. Prospector
- Personal Flag
- Phone Trick
- Private Account
- Raja Baba
- Rollicking
- Skip Trial
- Time for a Change
- Timeless Moment
- Traffic Judge
- T.V. Lark
- Well Decorated

Back to Class Next Class: Money Management \& Wagering Strategies


## By Jim Kostas

sire's offspring score at an amazing rate of 34 percent first time they try the grass. Or Trainer Jones has clicked with three of his last four first-timers sporting the same slow worktab. How about an even-running sprinter who's not quick enough to "clear" a group of sprint specialists, but should appreciate today's soft fractions when facing a bunch of plodding routers. If the price is right......

## 4. "A horse being offered at far above his morning line is always an 'overlay"'

Remember, the morning line is set by a track handicapper who is trying to GUESS how he thinks the public will bet. Mistakes in his judgment, or underestimating or overestimating the crowd's knowledge can lead to a flawed morning line. Once again, the key wagering decision factor is the comparison of your analysis of the race, with what is being offered at the windows. Only then, can true "overlays/underlays" be isolated.

## 5. "Always box your exactas"

A boxed exacta ticket always means at least one ripped-up ticket. A much better hedge play is a straight exacta, coupled with a quinella using the same horses. This offers protection should your top choice get nosed out by your second choice, with the chance of cashing both tickets. If you've no strong opinion between the horses, and cannot decide who should top your exactas, SKIP THE RACE. Chances are you have no significant "edge"

## 6. "Bet more when you're winning, less when you're losing"

Every player will encounter spells of seemingly losing every photo or nose-bob and, conversely, experiencing feelings of handicapping invincibility. DON'T let this affect your money management. The amount of the wager should be based SOLELY on your perceived edge in the upcoming event. If the bankroll gets so small you find yourself pinching on the "prime" opportunities, stop playing until the wallet becomes fat enough to resume normal money management.

## 7. "Follow the inside information and/or 'late' money"

While heavy or late action on a first-timer or a comebacker is often a good sign, remember one thing: The quickest way to riches in this game would be to find a way to legally open up shop and "book" the wagers of all trainers, jockeys and owners. Their understood complete lack of objectivity for the upcoming race translates to poor handicapping decisions. Talk to five jocks prior to the race, and you'll hear touts for five "mortal locks." Some analysis and a little hard work makes YOU the "insider." Make your opinions and stick to them.

## 8. "A successful player must be on-track"

The subjective analysis of horseflesh is a difficult task and does require a player to be at the track should this be your specialty. However, the great thing about racing is that there are more than a few ways to "skin this cat." Pace, figure, trip, or comprehensive handicappers can excel without the benefit of "being there." Simulcasting greatly increases the volume of potential plays that would otherwise be missed should you solely concentrate on one circuit.

## 9. "The track has influence or a vested interest in what horse wins"

The effects a huge carryover can have on attendance and handle aside, the racetrack has NO care in the world who wins. The track takes its cut, posts the results, and pays out the exact amount of money regardless of who wins. A favorite winning means more people
cash for less money. A longshot concentrates higher payoffs in fewer bettors' hands.

## 10. "Racing is fixed"

While it's naive to believe that racing is exempt from the occasional problem, there is simply too much money available in purses for a jock or trainer to throw it all away at a chance to cash a bet. If paranoia gets the best of you and precludes the ability to make a clear decision or watch a race objectively, QUIT BETTING.

