

HTR Report
Thoroughbred Handicapping Newsletter
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KM Software
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Late News

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Advanced Handicapping
Quirin Speed Points 1979 vs. 2009

Most of this issue will be spent reviewing the Quirin speed points (QP) and understanding how they can be used to identify early speed characteristics and various pace and race shape scenarios. The new Robot II will be utilized as it contains each of the QP number ratings as well as four QP *race-shapes* found on the Race Filters module. We will look at statistics with early speed and FR1 and find out if they are affected by these apparent pace setups.

Before we delve into the advanced treatise of pace and race prediction with Quirin speed points, let's review exactly what they are and some basic statistics. We will also cover the key statistic variable of Impact Value (I.V.) and why it is essential when studying factors such as speed points.

History and Original Quirin Formula

The release of "Winning at the Races - Computer Discoveries in Thoroughbred Handicapping" in 1979 was a milestone event in the history of high-tech handicapping. Dr. William Quirin presented the statistics of thoroughbred analysis in a format that no one had seen before. One of his key findings was the advantage of early speed on dirt surfaces at all distances. Although that may seem obvious to us now, it was quite enlightening at the time as most handicappers were using class and final time speed as their primary analysis tools.

To quantify pace he computed two ratings, both of which are still used in their original format today in the HTR software.

1. Pace Figures (PAC) that were scaled to the final time figures and based on par times.
2. Quirin speed Points (QP), a totally original idea that could be used to rate horses based on the amount of early speed they had shown at the first call in recent starts.

The QP formula was complex enough that it took quite a bit of time to compute a race by hand. It would be another decade before we could readily use them and test extensively with computer assistance. Quirin speed points are assigned to horses after looking at their last four starts (an adjustment for fewer starts was included). The scale of points was based on 0 to 8, with the "8" as the highest rating assigned to horses showing front speed in all of their last 4 races.

<u>QP</u>	<u>Meaning</u>
8	Highest rating, the horse ran to the lead in all recent starts.
6-7	Horse usually gets to the lead or fights for it.
5	Has shown some inclination to run up front, but not every time.
3-4	Might have shown some early speed, but not consistently.
1-2	Rarely had anything to do with early leaders.
0	Never been close to the lead.
N	Not rated (such as a first time starter).

Note on the Quirin formula used in HTR

HTR software has always utilized the basic point formula as designed by Dr. Quirin in his book *Winning at the Races*. This includes the adjustment for horses with less than 4 starts. Please refer to Chapter 2 of the Quirin book for the complete explanation on the speed points and his original test results. We will compare his results from 1979 to races in 2009 and see if early speed and the speed points are still performing at the same levels statistically.

Advanced Handicapping
Quirin Speed Points 1979 vs. 2009

Another important aspect to Quirin's book was the introduction of Impact Value (I.V.) to the statistical charts for horse racing data. It is important to understand how I.V. differs from win percentage in terms of mathematical accuracy.

- Impact value is a superior measure when there are multiple horses (or ties) in the same race with a matching data factor, such as speed points. Suppose there are four horses in a race with QP = 5, but perhaps in another race there are none, and yet in another race there may be one or two, etc.. The win% is distorted in these cases where there is an uneven distribution of horses for the data item. The I.V. irons it out and makes comparison easy. Win% is best used when there is one horse per race matching the factor, such as identifying the top jockey or trainer. However, even that can lead to distortions due to the average field size.
- Field Size is an important characteristic of win%. The smaller the average field, the higher the win rate will be for almost any factor. Impact Value irons out this problem as well, allowing reliable comparison between any data sample since the field size is built into the calculation.
- Impact Value is much more useful than win% for comparison of a cross section of unrelated data items. The I.V. scale is universal in that we can always look at the numbers and understand any factor in comparison to another in terms of its Impact Value.

To drive home all of these points, let's look at the statistics for horses at odds < 3/1 at two tracks. Keep in mind that there could be more than one horse at odds under 3/1 in a race, and maybe none in others. Another aspect here is the difference in field size:

TrackA	Winners	Odds < 3/1 = 50%	Avg Field Size = 8	I.V. = 2.00
TrackB	Winners	Odds < 3/1 = 40%	Avg Field Size = 10	I.V. = 2.00

Although TrackA has 50% winners vs. 40% for TrackB, they have the same Impact Value because there are more horses per race at TrackB.

Impact Value is found by computing the ratio between total number of horses and total number of expected outcomes from that population. To learn more, read the first chapters of the Quirin book for a complete explanation. To help you understand what the I.V. numbers indicate, peruse the chart below which simplifies the values.

<u>I.V.</u>	<u>Basic Explanation</u>
2.50+	Exceptionally strong prediction
2.00 - 2.49	Strong positive results
1.50 - 1.99	Moderate positive impact
1.15 - 1.49	Slight favorable results
0.91 - 1.14	Normal neutral range (random variable results)
0.75 - 0.90	Slight negative impact
0.50 - 0.74	Moderate negative results
0.25 - 0.49	Strongly negative correlation
0.00 - 0.24	Extremely bad results, highly predictive of losers

ROI vs. Impact Value

A key drawback with I.V. and horse racing statistics is that it does not tell us profit potential. Many factors or spot plays from HTR will have low or even negative I.V. yet very strong ROI. A recent test at one track showed me the following statistics with Favorites and Razor Sharp Workouts.

Favorites	I.V. 2.85	ROI 0.77
Razor Sharp	I.V. 1.25	ROI 1.05

It will be extremely difficult to net profits going forward with Favorites with a base return of -23% (0.77 ROI), despite a large I.V. rating of 2.85 - they are way over bet. Yet with a modest impact value, Razor Sharp workout horses are paying off at rates that far exceed their prediction level by the public.

Advanced Handicapping
Quirin Speed Points 1979 vs. 2009

Let's look back at 1979 and compare Quirin's "all burger" sample of speed points to a recent yearly sample. His data test at the time was drawn from a total of just 2,031 races (see page 42 of his book). That sample size would be laughable today in terms of data accumulation, but keep in mind that the computers of the 1970s were very crude and had to be manually fed with punch cards.

At the time of his writing in the late 1970s, far fewer races were run on turf (grass sprints were extremely rare) and there were no synthetic tracks obviously. The vast majority of races used in his book were dirt races at major tracks, with sprints dominating at about a 2-1 ratio. So to compare equitably, I used the following parameters:

- Purse \$10,000+ (major tracks)
- No Races with Unknowns (FTS, etc.) which eliminates a lot of maiden races and 2yrs.
- Dirt (wet and fast) only. Skipping Artificial tracks and ignoring Turf for now.

This should capture the gist of Quirin's original study for a reasonable comparison. We'll look at Turf and Artificial Track statistics on their own later. Note that second item is found in Robot II on the Race Filters Module by unselecting the item "Races w/ Unknowns" to ensure that no races with 'blank' horses (QP=N) were tested. Remember that Impact Values equalize the effect of field size differences between samples, so while there has been a drop in field size since 1979, the statistics are 100% comparable.

QP	1979/ Horses	I.V.	WROI	08-09/ Horses	I.V.	ROI
8	948	1.58	0.97	5924	1.40	0.73
7	866	1.48	0.86	10149	1.39	0.80
6	1200	1.33	0.82	15059	1.36	0.78
5	2200	1.16	0.85	20215	1.21	0.78
3,4 *	4354	1.00	0.73	40107	1.06	0.78
1,2 *	4195	0.88	0.82	37668	0.86	0.74
0	3915	0.65	0.56	21292	0.76	0.69

* Composite number. Quirin had these separated in his book, so I averaged them to enable direct comparison with the HTR Robot output from LEARN ALL.

Analysis

There is a lot to talk about here. A thirty year span and we can see some enormous changes in how bettors recognize and wager on early speed. First - notice the huge sample size differences between the two sets of statistics. The larger the data sample, the more accurate and confident the statistics pertaining to Impact Value and ROI. It took me only 10 minutes to run the Robot and get this data covering one full year of data. It took Quirin 3-years to compile and write his book with just 2000+ races. That's progress.

Notice that the Impact Values (I.V.) are not too far off from the two samples, especially with the higher population of middle numbers. With more data, Quirin might have come closer to what we see on the 2009 I.V. column as his sample sizes for QP=7 and 8 are very small. Also remember that I purposely left out Turf Races and any other race with 'unknown' horses such as FTS. This may have skewed Quirin's data slightly favoring the QP=7 and 8 groups. The important point here is that the Quirin speed points still do a great job of reflecting reality in terms of how early speed is distributed and wins with race fields. Overall the impact has remained about the same in terms of predicted winners.

The ROI has completely changed in the 30-years and it makes sense that it would. Bettors in the late 1970s were not tuned in to early speed and pace at all. Quirin was really the first to study and record the impact of front position in terms of winning outcomes. In the 1980s, Sartin/Brohamer and others would exploit this lack of knowledge with crude but effective velocity ratings that emphasized early speed and netted handsome profits. We have results from HTR showing flat bet profits with FR1=1 and various combinations of early speed including the Quirin speed points through 2002. Unfortunately in 2009, the good times are over for making easy money with identifiable early speed and horseplayers are clearly over betting the most obvious front runners.

*Advanced Handicapping***Quirin Speed Points – Complete Dist/Surf Study**

As we mentioned on the previous page, that last item "NO Unknowns", is totally unique to the world of horse racing statistics. It eliminates all races with any entrant(s) that cannot be computed with pace, running style or velocity numbers. The majority of these would be maiden races with first time starters, but also includes many non-maiden races with horses that cannot be rated. The reason for excluding these races is that the statistics are skewed if one of the unknowns wins.

Next is a complete statistical chart on the Quirin Speed points by distance-surface groups. All the point categories are separated and rated by Impact Value with the first chart and then ROI in the second chart. Note the following test parameters that you can duplicate by using Robot II.

- Data April 1, 2008 - March 31, 2009
- Purse \$10,000+
- NO Unknowns in race

Total races matching criteria = 15, 657

<u>Impact Value (Win)</u>	<u>Quirin Speed Points by Dist/Surf</u>						
<u>Dist/Surf</u>	<u>QP=8</u>	<u>QP=7</u>	<u>QP=6</u>	<u>QP=5</u>	<u>QP34</u>	<u>QP12</u>	<u>QP=0</u>
ALL	1.38	1.39	1.39	1.18	1.06	0.89	0.79
Fast Dirt Sprint	1.44	1.41	1.32	1.27	1.07	0.88	0.71
Fast Dirt Route	1.36	1.23	1.22	1.13	1.04	0.83	0.89
Turf Sprint	1.19	1.41	1.22	1.12	1.15	0.95	0.72
Turf Route	1.26	1.48	1.28	1.11	1.01	0.90	0.92
Artif Sprint	1.54	1.44	1.17	1.10	1.11	0.99	0.81
Artif Route	1.32	1.38	1.20	1.09	1.08	0.91	0.93
Wet Dirt Sprint	1.54	1.49	1.34	1.20	1.07	0.83	0.72
Wet Dirt Route	1.32	1.31	1.38	1.19	0.98	0.91	0.84

<u>ROI (Win)</u>	<u>Quirin Speed Points by Dist/Surf</u>						
<u>Dist/Surf</u>	<u>QP=8</u>	<u>QP=7</u>	<u>QP=6</u>	<u>QP=5</u>	<u>QP34</u>	<u>QP12</u>	<u>QP=0</u>
ALL	0.80	0.82	0.80	0.78	0.79	0.74	0.66
Fast Dirt Sprint	0.70	0.79	0.76	0.80	0.76	0.74	0.77
Fast Dirt Route	0.75	0.70	0.79	0.70	0.82	0.75	0.64
Turf Sprint	0.46	0.81	0.75	0.75	0.92	0.71	0.68
Turf Route	0.95	0.87	0.89	0.90	0.74	0.67	0.71
Artif Sprint	0.83	0.95	0.82	0.76	0.85	0.79	0.68
Artif Route	0.88	0.81	0.77	0.80	0.89	0.74	0.71
Wet Dirt Sprint	0.81	0.96	0.75	0.72	0.77	0.63	0.71
Wet Dirt Route	0.78	0.78	0.91	0.83	0.74	0.87	0.61

Analysis

It seems from these charts that we learn more about our fellow bettors ("the public") than we do about the Quirin Speed Points. Notice the ROI for dirt sprints with QP=8 is an incredibly low ROI=0.70 (-30%). The I.V. = 1.44 is good for QP=8, so the obvious conclusion is that these horses are massively over bet and over rated. However, with Turf Routes the ROI is excellent (0.95) despite a much lower impact on the win rate (I.V. = 1.26). This is due to the perception among most bettors that extreme early speed (QP=8) in Turf Routes will fail. In most cases the ROI results for QP=7 and QP=6 are better than QP=8, which warns us that the most obvious front runners (QP=8) are getting hammered by the public - mercifully.

Perhaps the most glaring result from these charts is the ROI returns with QP= 0,1,2. Most distance-surface categories show a severe loss (-25% or worse) if bettors stake their money on horses with little or no discernable early speed.

Advanced Handicapping
Quirin Speed Points and Pace Setups

Now we'll look at the Quirin Speed Points in terms of race-shape and pace setup. Robot II has four race filters that can be used to examine possible pre-race scenarios. First we need a definition of the term "QP6" and its use in HTR2 and the Robot.

QP6 = lets us know how many horses are entered in the race with Quirin Speed Points =6,7,8. This is a quick method of determining how much early pace pressure there might be. Those horses with QP=6 or more are likely to contest or press the early pace. Some of these situations are shown in the header on all HTR screens and Robot II has four filter separations to use in data testing or spot plays.

1. QP= 0: No apparent pace setters as none of the horses entered have shown consistent early speed (QP=6,7,8) or a willingness to lead. This situation would theoretically favor a default leader and result in a slow pace and make it tougher for closers. This scenario is most common in turf routes.
2. QP=1: One horse has a clear advantage with the Quirin Speed Points and will be the likely leader. This is a favorable scenario for a wire-to-wire try. Any horse able to control the pace should apparently have an edge and will be able to cruise along and stay out of trouble.
3. QP=2: Here we have two runners that have shown a desire to lead. Will it result in a speed duel and kill them both, or will one of them dominate and go on to win? In his 1979 studies Quirin found that more often than not, one of the two would go on to win and the killer speed duel did not materialize very often for the late runners.
4. QP=3+: There are three or more entrants with QP=6,7,8 and a pressured tussle for the front is expected. A fast pace is expected and the closers should benefit in theory.

We can learn several things about each of these situations by using the four Robot II filters and examining the test results.

- What advantage or disadvantage does the leader have with each of these categories, if any? We can use the Robot II filter "Chart Leader" to determine this and find out if the race leader wins more with QP6=0 or QP6=1 and if they fail more often with QP6=2 or QP6=3+.
- In terms of pre-race prediction, FR1 has always been the top factor in predicting the leader. How does the top-rank FR1 horse fare with these four scenarios will be discovered next.

I have found after decades of experience that my mental image of the pre-race race shape or pace scenario is frequently mistaken and sometimes completely misjudged. Anticipated two-horse speed duels often do not play out on the track and one horse either inherits the lead or dominates. No surprise that jockeys and trainers also read the Past-Performances before the race and they have to figure a strategy depending on their own expectations and may decide to take-back early to avoid early burn up.

With many races, the post-position draw and the break from the gate will require the jockey to quickly improvise and change tactics regardless of the anticipated paper race. Trouble and bumping at the start is common. We cannot predict these uncertainties ahead of time.

Let's see if the statistics on the next page can remove some of the fog surrounding this.

Advanced Handicapping
Quirin Speed Points and Pace Setups

In the first test I utilized the "Leader 1st Call" filter to find out how often the horse on the lead is able to hold on in each category of QP6. All races were tested.

Leaders 1st Call	Purse \$10,000+	No Unknowns	All Dist/Surf/Class
QP6	Leaders	Won	
All	27,719	27%	
0	5,737	27%	
1	8,510	28%	
2	7,116	28%	
3+	6,356	25%	

Analysis

Keep in mind that in this discussion there is no separation between distance/surface. This initial test is a generic sample. No question that further separation would yield greater distinction.

Let's examine this data very carefully as it is important for us to understand how the Quirin points can be related to pace pressure. The above chart breaks down races into the four Quirin point categories, but the first category is ALL races with "No Unknowns" and Purse \$10,000+. There were 27,719 of these races and obviously 27,719 horses that led at the first-call in each race. Of those leaders, 27% will eventually hold on and win the race, typically going wire-to-wire. So that is our benchmark for this sample = 27% leaders that win from all races after getting the lead at the 1st call.

We would expect that QP6=0 and QP6=1 would produce more of these wire-to-wire winners because of the apparent lack of pace pressure. This does not seem to be the case. These categories produce about the same number of winners from leaders and there seems to be no great advantage.

Likewise, we would anticipate that the QP=2 and especially the QP=3+ would degrade the number of leaders able to hold on because they are under greater pressure from other QP6 horses. In the case of the QP6=2, we do not see this happening - and this confirms Quirin's analysis of speed duels 30-years prior when he noticed that one of the two apparent leaders will tend to dominate the other. There is a significant drop in the win rate among the QP6=3+ group, as the leaders are only able to hold on and win just 25% of the time. As you'll see in the test below with FR1, we will confirm this data.

Next we try a FR1=1 (top ranked fraction one velocity) test with the same four categories and see if it yields any influence. Note that this is a test of FR1 and the four QP6 categories that does *not* involve the chart leader as above. The purpose here is to see if pre-race FR1 plays are helped or hurt by any of these pace scenarios. Benchmark for all FR1= 1 winners is about 18% and ROI = 0.89. Again, there is no breakdown by race type.

FR1= 1	Purse \$10,000+		No Unknowns	All Dist/Surf/Class	
QP6	Plays	Won	ITM	WROI	I.V.
0	5,764	19%	46%	0.89	1.47
1	8,537	20%	47%	0.90	1.48
2	7,132	17%	44%	0.84	1.40
3+	6,374	16%	40%	0.89	1.31

Analysis

Here we can see the effect of pace pressure with a little more clarity. FR1=1 runners are compromised by the QP6=2 and QP6=3+ scenarios. Unlike the test above with "chart leaders", not all FR1=1 runners make the lead (about 40% of them do). We would normally expect that they would be part of the pace picture and their chances are certainly diminished if the early speed is hotly contested, especially with the QP6=3+ races.

*HTR Updates***Robot II Has New Filters**

A new beta-test version of Robot II should be available as you read this, version date May 10, 2009. Fixed a bunch of bugs, especially the error with the "Races with/without Super Trainers", it works now and is very productive. I have added a lot of new filters for you to try out.

Range Filters Module

Lifetime Starts - Lifetime starts can now be manipulated with minimum and maximum values. From 00-99 starts can be set (99 --> 999 for maximum value). Set any number you wish for the lifetime starts range now. I like to set it between 01-04 starts and find lightly raced horses with various changes: bo, bx, L1, L2, (+) jockey switch, etc.

K Gap Maximum - This is a good one for contender selection. The number chosen is the maximum number of (K) points you will allow a horse to be separated from the top (K) in the race. Example: suppose the top ranked K horse (K=1) is rated with a 108 and the other horses have (K) ratings as follows:

K=1	108
K=2	105
K=3	100
K=4	097
K=5	095
K=6	090
K=7	084

If we set the K Gap Maximum to 10 points, this would exclude all the horses from K=4 on down as their K-rating is more than 10 points (gap) from the top rank. If the setting were 15, then it would exclude just the K=6,7 in this example. Typically you will allow at least 10 points, but you can experiment with it to find a range that pulls in most of the winners in your sample. Keep in mind that the "gap" varies from race to race depending on the top rated. The Robot finds the "gap" in each race and filters accordingly.

VI Range - Now you can set the Vi to any range you want. If you use this filter, it will negate the checkbox selections on the Race Filters screen - so leave those alone if you use this one (leave them checked).

FC Rating Range - No more restrictions on the FC; set it to any range you want. There are surprising results at times.

Horse Age - Choose any range of age that you wish to filter. Do older horses (7yr up) pay better? Do 3yrs compete well against older? If not, do the 4yrs dominate those races? What about "old maidens", 5yrs up? Now you can find out all of this information. See the next page for some sample test results with this filter.

Negatives Module

Did NOT Win Last - take out horses that won their last start (they deplete ROI)

Did NOT Finish ITM - eliminate any horse that finished 1-2-3 last out

NO Bad Class - I'm tinkering with a formula, it requires 8 starts lifetime, but is a good elimination tool in early tests. I'll continue to test it for improvement.

Note: if I add late additions to the Robot II, they will be listed on the "late news - back page" or on the HTR Discussion Forum if completed after the newsletter is edited. Please report any bugs. Thanks.

HTR Updates

Robot II Data Testing – 3yr vs. Older

Let's try out that new Age Range filter and test 3yr vs. older.

Set the Age Range filter to "03-03". This restricts the test sample to horses aged 3yr only. On the Race Filters screen, I unchecked the boxes for "2yr" and "3yr" races. Finally I checked K=1 (only) as I want to look for 3yr top contenders in these races and find out how they perform. This will force the Robot to find K=1 3yr that are entered in races for 3up only. My goal is to find out how these good 3yrs perform vs. their elders. We can also run LEARN MORE and find out if it is calendar sensitive, expecting the later months to produce better as the 3yrs mature. Also I want to know if the 3yr vs. older has any distance/surface issues or if the 3yrs beat up on their older competition in maiden races as author James Quinn used to preach in his books.

Note: Impact Value (I.V.) is not necessary for this test. This is because the test was restricted to K=1 only and that eliminates nearly all possibility of having multiple hits (ties) in the same race.

<u>3yr (only)</u>	<u>K=1</u>	<u>Purse \$10,000+</u>	<u>3up races</u>	
<u>Item</u>	<u>Plays</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>
ALL	8237	30%	65%	0.84
Males	4223	30%	65%	0.84
Females	4016	31%	66%	0.85
ALW/STK	1875	30%	63%	0.82
CLM	2321	27%	62%	0.82
MSW	1671	34%	71%	0.91
MCL	2370	31%	67%	0.83
Dirt Sprint	3299	33%	68%	0.89
Dirt Route	1336	31%	67%	0.83
Turf Route	724	24%	61%	0.74
Artificial All	1245	27%	61%	0.79
Wk 85+	732	34%	68%	0.95
Razor Sharp	388	36%	68%	0.95
Turn Back	626	31%	65%	0.93
Won Last	1145	28%	62%	0.74

Analysis

The ALL results mirror any normal K = 1 test with about 30% winners and ROI in the mid-80s. So the top ranked (K) 3yrs have no serious advantage or disadvantage overall, when facing elders. However, there is considerable difference with the class levels and distance-surface. We can verify to some extent that James Quinn was right when suggesting 3yrs are at an advantage in maiden races. The win rates and ROI are significantly higher than regular claiming races, where the 3yrs are at a clear disadvantage. The 3yrs do best when running in dirt sprints and find it much more challenging with Turf or Artificial surface when facing older horses.

I could see very little separation among the long list of handicapping factors on the Learn All report. Positive workout information seems to be the most promising factor for a later test. Another interesting positive ROI that popped up was the "Turn Back" (Route to Sprint). One sure negative was those that won their last start had a miserable ROI when returning, no doubt they are over bet.

In terms of the calendar, the later months (starting with Sept) did produce a higher ROI, but the win rate was steady throughout the year at around 30%. The worst months were April and May for the 3yr vs. older and Sept-Oct were the best.

HTR Updates

Robot II Data Testing – "Old Maids"Old Maidens

No trainer or owner wants to be saddling a horse that hasn't broken its maiden by age 5yr. It is almost a little embarrassing, like having a 20-year old child in your family that hasn't passed the test for a drivers license! Older chronic losing maidens can continue to earn enough for their keep by finishing in-the-money, but these old maids are not going to produce steady profits without winning once in awhile. They end up being dropped in class or moving to a cheaper circuit to find a win.

<u>Maidens</u>	<u>Purse \$10,000+</u>	<u>3up/4up</u>		
<u>Age</u>	<u>Starts</u>	<u>Win</u>	<u>WROI</u>	<u>I.V.</u>
5	4818	08%	0.60	0.79
6	620	06%	0.42	0.55
7	116	04%	0.56	0.40
8	22	00%	0.00	0.00
9	3	00%	0.00	0.00
10+	3	00%	0.00	0.00

Analysis

Keep in mind that this first chart is for races with Purse \$10,000 or more. Many chronic losers at major tracks are sold off and transferred to minor circuits to get that elusive win. The statistics for Purse less than \$10,000 is below and there are far more horses aged 6up involved in the maiden ranks at the minors tracks. The data above doesn't require much discussion as it is very obvious that old maidens are a terrible bet.

<u>Maidens</u>	<u>Purse \$1,000 - \$9,900</u>	<u>3up/4up</u>		
<u>Age</u>	<u>Starts</u>	<u>Win</u>	<u>WROI</u>	<u>I.V.</u>
5	3889	09%	0.65	0.82
6	1085	07%	0.63	0.65
7	329	06%	0.48	0.51
8	93	06%	0.75	0.56
9	19	00%	0.00	0.00
10+	9	00%	0.00	0.00

Analysis

I don't keep results for many of the really small tracks and fairs, so these numbers are not a 100% complete representation of the stats on the older maidens. The poor impact is apparent and the ROI is miserable. Many older maidens have learned to run with the pack and not put out any further. They may have plenty of raw talent and speed to win a race, yet they refuse to push themselves ahead of other horses for reasons that cannot be explained. Perhaps it is due to the herd hierarchy and animal instinct.

Notes on age testing

While the above stats may be an exercise in confirming the obvious, you can find many similar extremes using the Robot II age separation filters and readouts that are not apparent to the public. There are probably circumstances that favor the older runners in terms of ROI. Experience should not be underrated with race horses and the 7yr up tend to be under bet due to age bias from handicappers.

The fascinating 3-year-olds are the most curious age for a thoroughbred handicapper because it is the time of sudden maturity and blossoming into real athletes, and they are highly volatile at this developing age. If you can figure out the 3yrs, you'll make plenty of money betting on horses. Use the Robot II and do your homework on 3yrs and it will give you some profitable insights.

Spot Play Analysis with Robot II
Discoveries with Razor Sharp

Derby Winner Spot Play

This year's surprise Derby winner, *Mine That Bird* had an interesting combination of longshot factors found in HTR. A few people noticed this and cashed in (although admittedly the horse was hard to like even at 50/1).

- \$\$
- Razor Sharp
- FR1 = 1

That seems like a potent combination let's see how it plays out with a year's worth of races. And note that this test does *not* use the Derby winner in this data sample to avoid a 'red board' back-fit of a \$100.00 horse! All data samples throughout this newsletter were from April 2008 - March 2009.

<u>Spot Play</u>	<u>\$\$ + Razor + FR1=1</u>				<u>Purse \$10,000+</u>		
<u>Plays</u>	<u>Won</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>PROI</u>	<u>AvgWin</u>	<u>I.V.</u>
1032	121	12%	33%	1.07	0.97	\$18.20	1.00

Analysis

It's a winner, albeit a paltry win percentage, but the average score paid \$18 and change to produce a profit. Looking over the Learn All report shows a terrible win rate for artificial tracks and they could be eliminated and all the statistics would improve significantly. Try this one on your own, and with 1032 plays, you have some room to pare it down and filter out the bad stuff.

Lone Razor Sharp and Double Razor

Now let's look at a couple of variations to the Razor Sharp that you'll find in the latest Robot II version (Angles and Systems screen). *See the back page for an update on Robot additions.*

Lone Razor = the one and only horse in the field with Razor Sharp workout listed.

Double Razor = A horse with two or more Razor Sharp workouts shown.

<u>Razor Sharp Variations</u>		<u>Purse \$10,000+</u>						
<u>ITEM</u>	<u>Plays</u>	<u>Won</u>	<u>Win</u>	<u>ITM</u>	<u>WROI</u>	<u>PROI</u>	<u>AvgWin</u>	<u>I.V.</u>
Lone Razor	6833	1351	20%	48%	0.97	0.88	\$9.80	1.61
Double Razor	2148	435	20%	47%	0.97	0.91	\$9.60	1.70

Analysis

These are two exceptional tools for spot plays based on the power of the Razor Sharp workout. Near flat-bet profit with both of them and large sample sizes mean we can come up with some excellent spot plays using these two new items. A 20% win rate is excellent for a single item workout factor and the ITM% is nearly 50%, which means that most of these horses are "live" runners.

One solid eliminator for both of these was the new "NO Bad Class" filter. Cutting out the "Bad Class" and various other eliminations from the Negatives screen will push that ROI way up.

HTR Software Updates
Announcements and Reminders

Seminar 2009

Our annual seminar will take place on Wed July 22 at the Gold Coast Hotel in Las Vegas from 10am until we get tired. Check on-line for amazing room deals and airfares - you have no excuses as Vegas is a bargain city this summer. Our focus this year is using the Robot to create spot plays, data analysis, work-outs and razor sharp, review of all key HTR readouts and much more including presentations from Mel Moser (tournaments), Mike Mayo (record keeping and IRS issues) and Donnie Nadermann on data crunching. John O'Rourke will introduce his update to the File Rat downloader. The Gold Coast 3-day tournament directly follows our seminar. HTR players who have attended the seminar have collected big time from this tournament during the last 5 years. John Buckley has won it twice since we started hosting our event at the Gold Coast. DON'T MISS OUT!

Added to Robot II

On the Systems and Angles Module, I have added:

- Lone Razor
- Double Razor

These items also appear on the Learn All report. See the data tests herein on both of them.

HTR Software

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HTR Report is an on-line newsletter and is published bi-monthly, then placed on the HTR member (Subscriber Zone) web site around the 10th of the month. Monthly subscribers to HTR can view the current newsletter for no charge on-line, Adobe Reader software (free) required. Past issues are available for free viewing in our website archive library after one year.

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