Do We Need a Sturdier Racehorse?

Racing Grapples With Smaller Fields, Fewer Starts.

By BILL FINLEY

November 2010
Allen Jerkens’s list of feats is a mile or two long, but none is more impressive than his dismantling of Secretariat. He didn’t do it just once, but twice, and did it in the span of eight weeks. First Onion beat the Triple Crown winner in the 1973 Whitney at Saratoga. Fifty-six days later, Jerkens got him again, this time with Prove Out in the Woodward. They were different races, won by different horses, but each had one thing in common, besides their trainer: Both were running back in a week or less. Onion raced four days before the Whitney; Prove Out ran one week prior to the Woodward. Thirty-seven years later, with seemingly every owner and trainer in the sport convinced the animal is no longer sturdy and must be pampered, no one would dare try something like that.

Jerkens, the 81-year-old Hall of Famer and racing icon, can’t understand why. “The biggest change in racing is that people are of the opinion that you shouldn’t run horses very often,” Jerkens said. “It used to be that if a horse was sound and hadn’t lost any weight from his last race and was feeling well, and if a race came up, you would run them. Now people for some reason think they shouldn’t run. I can’t understand it. I’ve had a lot of horses in my life who won real big races close together. What’s going on, it’s a fallacy.”

Jerkens remains one of the most respected horsemen in the game, but there are probably some, maybe even many, who think he’s out of touch with the modern realities of the sport and the equine athlete, a dinosaur from another era. After all, the statistics tell a very different story.

In 1970, the year Secretariat was born, the average number of starts per runner per year was a healthy 10.22. Forego, born that same year, ran 57 times, including 18 starts in 1973. But even those numbers, remarkable by today’s standards, don’t put the mighty Forego in the same league with some of the true iron horses in the sport’s history. Hall of Famer Stymie started 131 times.

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Allen Jerkens
Round Table raced 66 times and won 43 races before anyone sent him off to the breeding shed, from where he became the leading sire in North America in 1972.

Whirlaway’s 1941 campaign typified what horses did 70 some years ago. He had seven starts prior to the Kentucky Derby, including a win in the Derby Trial just four days prior to the Run for the Roses. After his horse won the Derby and the Preakness, trainer Ben Jones was apparently concerned there was too much time between Triple Crown races. Why else would he have started him in an allowance race at Belmont 10 days after the Preakness and 18 days before the Belmont? It was one of 20 starts he made during his three-year-old campaign.

Previewing Whirlaway’s appearance in the Belmont allowance race for the New York Times, reporter Lincoln A. Werden wrote: “In keeping with his policy of giving the colt plenty of work, trainer Ben Jones announced that Whirlaway will not only race today (on a Tuesday), but possibly in the Peter Pan Handicap on Friday, depending on the outcome of today’s test.”

(After winning the allowance race by 2¼ lengths, Whirlaway passed the Peter Pan).

The most recent Kentucky Derby winner, Super Saver, raced just six times this year and was retired after a poor effort in the Travers. And that makes him more robust than most. In 2009, the average number of starts per horse was down to 6.23, a 39-percent decline over the 1970 numbers.

That’s among the reasons why so many believe the modern Thoroughbred is a veritable weakling, unable to stand up to the pressures of racing, prone to injury and no match for his tough-as-steel counterpart from the ‘40s, ‘50s and ‘60s.

“There’s no doubt, we are breeding a weaker horse,” owner and breeder Arthur Hancock said. “The big problem is all the medication. We are breeding a chemical horse.”

Hancock believes that the influx of drugs and medications, legal and otherwise, is at the crux of the problem, a theory many people share. Others believe the cause of the apparent weakening of the athlete is due to the changes in the way we breed horses in modern times. Everyone, or so it seems, wants to breed for speed and not stamina, and if that means breeding a horse that raced just five times before breaking down to an unraced mare, so be it. Or maybe it has something to do with year-round racing, or problems with track surfaces. Theories abound.

Among those trying to answer the question are a number of scientists who specialize in equine genetics, smart people whose perspective is different from that of the typical horseman. Why has the breed changed? They argue that it hasn’t.

Dr. James MacLeod is a member of the team at the University of Kentucky’s Gluck Equine Research Center. Among other things, he studies how physical exertion and the musculoskeletal stress of athletic events predispose both horses and humans to joint injuries. In other words, he knows a lot about horses and genetics and how the animal can change from generation to generation. As a scientist, he cannot see any reason why horses now are any weaker or more injury prone than horses from 40 or 50 years ago. He says that not nearly enough time has gone by for the breed to undergo any sort of significant change.

“It is hard to arrive at a genetic explanation for a shift in the population as large and as diverse as Thoroughbreds in such a short period of time,” MacLeod said. “I understand there are many variables in play in terms of how condition books are written, how we train and other factors, and separating those things out would be a challenge. But, purely on the genetics and looking at what is this animal and the biomechanics of its tissues, it is difficult to
HOW GOOD ARE YOU AT YOUR STATS?
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2. Who holds the best Kentucky Derby-winning Ragozin number in history?

3. The only Breeders' Cup Winner in history to be both out of a Breeders' Cup winner and to sire a Breeders' Cup winner is?

4. Whose progeny earnings have topped $7-million 6 times since 2003?

5. A. P. Indy's All-Time Leading Grandson by GSW’s, SW’s and Winners is?

6. Who currently has 10% Stakes winners from foals in first 5 crops?

7. Whose progeny have earned Four Championship Titles in the Past Three Years?

8. Which freshman Sire with an Impressive Keeneland winner pointing toward the $500K Delta Princess-G3?

9. Who is the World Record-holder for a Mile and a Quarter in 1:57?

10. The record-setting full brother to Dreaming Of Anna is?

11. What freshman Sire with a Winners from Foals Percentage of 18%?
support an inherited biological mechanism to explain why horses race much less frequently today than three to five decades ago."

Dr. Ernest Bailey is also with the Gluck Equine Research Center, and is an expert in the field of genetics and the horse. Like MacLeod, he says there’s no evidence to support the theory that the modern horse is somehow less sturdy or strong than the horse of the mid-20th century.

“Many breeders believe that horses have become less durable,” Bailey said. “This certainly implies a change in the genetics of the Thoroughbred horse population since the beginning of the 20th century when horses ran more frequently. The breeders are very astute and I respect their opinions. I do have some reservations. Forty to 50 years is a very short time to manifest such an extensive change in such a large population of horses, worldwide. The onset of the problem appears to be fairly abrupt, and that is more consistent with changes in management.”

How long would it take for the breed to undergo a radical change? A very long time.

“Gene frequencies change at a glacial speed for large populations like the Thoroughbred,” Bailey said, adding that only very modest changes are possible in a breed in a period as short as 40 or 50 years.

Then, what has happened? Why does the modern racehorse run so infrequently and seem to get injured so often? Could it be that it is the people behind the horses and not the horses themselves that have changed?

The Jockey Club’s statistics regarding how often horses run go back to 1950, when the average starts per runner per year was 10.91. In 1960, the number had increased to 11.31, and, with the exception of a very small increase in 2009, from 6.20 to 6.23, it has been falling ever since. In 1980, the figure was down to 9.21. In 1990, it fell to 7.94. In 2005, it fell to 6.45, the first time it dipped below 6.5 since The Jockey Club began keeping records.

Anecdotally, top-level horses seem to run less frequently than ever. A five- or six-race campaign for a Grade I horse is the norm, and rarely will any run back in less than a month. Never was that more evident than during this year’s Triple Crown series, which, by the time the Belmont rolled around, had fallen apart. No horses competed in all three races, and the Belmont field included neither the Kentucky Derby nor Preakness winner.

Perhaps no trainer represents the modern trend more than Todd Pletcher. He pulled Super Saver out of the Triple Crown within minutes of his eighth-place finish in the Preakness, a typical move from a trainer who prefers to give his horses at least five weeks between races. Owners flock to Pletcher because he has a proven record, is a multiple Eclipse Award winner and wins consistently at the highest levels, but give him a horse and it will not run often.

Yet, Pletcher is not among those who is convinced the breed has grown weaker.

“It is so complicated and there are so many variables, it is too hard to narrow it down and just say in 1950 the horse was more durable,” he said. “Maybe it was, but I just don’t know if that is true.”

Pletcher was a disciple of Wayne Lukas and worked for him as an assistant for more than four years, but he seems to have patterned his style more after that of the late Bobby Frankel, who was a trendsetter when it came to the less-is-more approach. Frankel’s training style was typified in the way he handled Ghostzapper, one of his 10 champions. He made just 11
lifetime starts, but won six graded stakes races and was considered one of the best horses of his era before being retired to stud. Ghostzapper ran just four times in 2004, but it was enough for him to be named Horse of the Year.

“When you see a guy like Frankel having so much success giving his horses plenty of time, it would be foolish not to consider doing the same thing,” Pletcher said.

Frankel confessed that he was influenced by the beliefs of Len Ragozin and his team. Ragozin—the first to publish “sheets,” or sophisticated speed figures laid out on graph paper—and his disciples believe that after a big effort a horse needs plenty of time to recover. If not, they say, the horse will not run well, or bounce. Ragozin’s theories are now widely accepted and many top trainers use his sheets and those of competitor Jerry Brown to manage their stables.

“Now everyone is a sheets guy and a lot of trainers race wherever the sheet guys tell them to run,” weighed in another Hall of Famer, three-time Derby-winning trainer Bob Baffert said.

Pletcher also follows the sheets, but that has nothing to do with whether or not he believes the modern horse is frail. Rather, he believes spacing out a horse’s races gives them the best chance to win.

“What has happened over the years is that things have evolved,” Pletcher said. “A number of years ago, most guys did the same thing: everybody ran their horses once a week and the same horses ran against one another in race after race. Probably at some point along the way some guy figured out, ‘If I skip a week and come back and catch all these guys after they’ve run the previous week, I’m going to have a fresher horse that’s going to run better and I’m going to be able to beat them.’

“We’re in such a statistical era that everything is looked at and scrutinized closely. Trainers feel like they’re in a position where their horses have to perform as well as possible every time they go over there, and the only way to do that is to make sure they have plenty of time between races, they’re fresh and ready to go every time, especially at the higher levels. There are other cases where you can have horses run poorly and run them back on short rest, but from our experience, when we run horses back off good races, they need more time to get back to that same caliber of race. That’s what we’re trying to accomplish and that’s why we give them more space.”

Pletcher typically wins with about 25% of his starters, a healthy figure that is in line with what he has accomplished throughout his career. He admits it is important to him to have a high percentage, and that it’s a huge selling point when it comes to attracting owners. There’s little doubt that some

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trainers are so obsessed with maintaining a high winning rate that it dictates when and how often they will run their horses. Running infrequently and only in spots where your horse has an excellent chance of winning is one way to ensure an impressive winning percentage. But it’s just that sort of thinking that keeps horses in the barn instead of in the entries.

“With the incredible amount of statistics out there, trainers are very concerned about their winning percentage,” said trainer and veterinarian John Kimmel. “It is out there for everybody to see. Trainers don’t want to run their horses in prep races or bring them along with a couple of races, because then they’ll get this connotation that if they’re not winning at a 20 or 25-percent clip they’re not doing a good job. That’s one of the downsides of what statistics have brought. It has made the trainers more cautious about when they lead their horses over there and how prepared they are. Races used to be the preparatory steps for running in major races. It doesn’t happen anymore. When you go out there, you are expected to put in a big performance, and when you put in a big performance the consequences are that you are looking at significant down time after the horses run, and that has a negative impact on the number of starts horses make during a year.”

Trainers like Kimmel and Pletcher who deal with top-of-the-line horses have to worry about more than just winning races. Their primary goal with some horses is to turn them into valuable stallions and broodmares and send them into retirement ready to earn more money breeding than they could ever make racing. That’s among the reasons some trainers are so cautious; a bad effort in a big race can cost an owner millions when it comes to a horse’s future value in the breeding shed.

That may help explain why a horse on the level of a Super Saver or a Ghostzapper runs so infrequently, but what about the $5,000 claimer at Finger Lakes? The days of the iron-horse claimer that runs 30 times a year also seem to be long gone.

“When I see what trainers used to do with horses years ago it makes me scratch my head,” said Chris Englehart, the leading trainer at Finger Lakes. “I have to think the horses just aren’t as durable as they used to be because if I tried to do that, I wouldn’t have any horses left in my barn after a short period of time. I’m not sure why that is. It might be changes in the breed in general, the racetrack surfaces we run on, a combination of those factors or some unknown reasons. Who knows? But I can tell you if I tried to do that with my horses they would all be on the farm.”

Is Englehart correct? Or is he just one more trainer who has simply convinced himself that horses aren’t as tough as they used to be? How much of what has been going on is a matter of perception winning out over reality? As Pletcher admits to having been in-
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3. The only Breeders' Cup Winner in History to be both out of a Breeders' Cup winner and to sire a Breeders' Cup winner is? .......... WAR CHANT
4. Whose progeny earnings have topped $7-million 6 times since 2003?.... DYNAFORMER
5. A. P. Indy's All-Time Leading Grandson by GSW’s, SW's and Winners is?..... SKY MESA
6. Who currently has 10% Stakes Winners from Foals in First 5 Crop.. EXCHANGE RATE
7. Whose progeny have earned Four Championship Titles in the Past Three Years?......................................................... POINT GIVEN
8. Which freshman sire with an Impressive Keeneland winner Pointing toward the 500K Delta Princess-G3?.............................. FLOWER ALLEY
9. Who is the World Record-holder for a Mile and a Quarter in 1:57?........ RED GIANT
10. The record-setting Full Brother to Dreaming Of Anna?............... LEWIS MICHAEL
11. What freshman sire with a Winners from Foals Percentage of 18%?... GOOD REWARD
fluenced by Frankel, is Pletcher influencing trainers everywhere, even those whose barns are filled with cheap horses?

“Once everybody else is doing it a certain way, you’re pretty much afraid of facing the criticism of going out and doing something different,” said Dan Rosenberg, the president of Rosenberg Thoroughbred Consulting, and former president and chief operating officer for Three Chimneys Farm.

Still another unexplored area when it comes to durability and the modern racehorse is how they are handled between starts. The way Pletcher trained Super Saver leading into this year’s Derby was fairly typical of how a trainer prepares a horse for major races. After a brief freshening over the winter, Super Saver began working approximately once a week at the Palm Meadows training center in Florida, starting in late January. After he made his final Kentucky Derby prep in the Apr. 10 Arkansas Derby, Super Saver had just one work for the Derby, a four-furlong breeze a week before the big event. After winning the Derby, he had just one work for the Preakness, a three-furlong breeze on the Saturday between the two legs of the Triple Crown. Never in his entire career has Super Saver worked beyond five furlongs.

Suffice it to say, Pletcher didn’t demand much from his horse in the mornings, especially when compared to Triple Crown warriors from the ‘40s.

Bill Pressey is an equine exercise physiologist based in Louisville who doesn’t believe in pampering horses. As part of his research, he uncovered the training routine of 1946 Triple Crown winner Assault, who was trained by Max Hirsch. He breezed four furlongs the day before the Derby, a mile two days before the Preakness and had eight workouts between the Preakness and Belmont, among them mile-and-a-quarter and mile-and-a-half works. Pressey believes the implications are obvious: horses were tougher then because they were made that way by their trainers.

“Currently our runners such as Super Saver and Lookin At Lucky, while still fantastic specimens, cannot breeze/race four times in this period, much less the 20 of Assault, and no doubt all others during the 1930-1948 period when we had seven Triple Crown champs,” Pressey writes in his blog, which carried the headline “I Blame Trainers for Lack of Triple Crown winners.” Assault’s mother never ran a race, and the colt himself had a foot injury early in his career. Today, he would have been trained/raced like he was made of glass—instead of iron.”

Assault made 42 starts during his career and returned to the racetrack after it was found out he was sterile.

Like most horses of the era, a lot was demanded of Assault as a two-year-old. He began his career in June and made nine starts during his freshman season. Others were even busier: Whirlaway made 16 starts as a two-year-old and Count Fleet ran 15 times at two.

Anyone who ran a two-year-old 15 or 16 times today would be showered with criticism. Asking that much of a young horse is considered to be borderline cruelty and a foolproof way to make sure they never last. Animal rights advocates often rail about two-year-old racing, arguing that horses aren’t developed enough physically at that point to be pushed into races.

The Jockey Club Information Systems has crunched numbers relating to all aspects of racing and the health and safety of its competitors, and came up with some fascinating findings regarding two-year-olds and two-year-old racing. Despite conventional wisdom, it appears that modern trainers are not pushing their two-year-olds hard enough.

According the TJCIS research, in 1964, 52 percent of the foal crop of 1962 raced as two-year-olds. Those two-year-olds averaged 6.9 starts, and two-year-old races accounted for 11.6 percent of all races run that year.

In the period from 2004 to 2009, only 30 percent of the applicable foal crop raced as two-year-olds and they averaged about three starts per horse. Races for two-year-olds accounted for only 7.9 percent of the total races run.

Dr. Larry Bramlage took those num-
bers one step further and found that a horse that races as a 2-year-old is likely to have a lengthier, healthier career. He found that horses that race as two-year-olds will, on average, make far more career starts than horses that did not race at two. It’s also worth noting that the average career earnings for horses that start as two-year-olds are nearly twice those of horses that began their racing careers after turning three.

“This data is definitive,” Bramlage said during a speech in 2008 before The Jockey Club Round Table. “It shows that horses that began racing as two-year-olds are much more successful, have much longer careers and, by extrapolation, show less predisposition to injury than horses that did not begin racing until their three-year-old year. It is absolute on all the data sets that the training and racing of two-year-old Thoroughbreds has no ill effect on the horses’ race-career longevity or quality. In fact, the data would indicate that the ability to make at least one start as a 2-year-old has a very strong positive affect on the longevity and success of a racehorse. This strong positive effect on the quality and quantity of performance would make it impossible to argue that these horses that race as 2-year-olds are compromised.

“These data strongly support the physiologic premise that it is easier for a horse to adapt to training when training begins at the end of skeletal growth. Initiation of training at the end of growth takes advantage of the established blood supply and cell populations that are then converted from growth to adapt to training. It is much more difficult for a horse to adapt to training after the musculoskeletal system is allowed to atrophy at the end of growth because the bone formation support system that is still present in the adolescent horse must be re-created in the skeletally mature horse that initiates training.”

These are the great ironies of the modern Thoroughbred and how it is handled. Trainers have never been more cautious in how they handle their horses, taking great care to space their races apart and to keep their number of starts to a minimum. Few horses ever work beyond six furlongs, part of daily training routines that emphasize light exercise over anything too taxing. The best two-year-olds are unveiled not in May or June, but in September or October, and once they begin racing they won’t be asked to do too much. Two or three races during a juvenile season is considered a norm.

Yet, horses have never seemed more injury prone or susceptible to fatal breakdowns on the track. Recent figures released by The Jockey Club show an alarming number of catastrophic breakdowns, with 2.14 horses per every 1,000 starters suffering fatal injuries in dirt races over a one-year period ending last October. With little if any data available concerning the number of fatalities in past decades, it’s impossible to know if the current numbers are on the rise, but anecdotal evidence would suggest that they are.

Could it be that in the sport’s rush to go easy on its competitors it is actually creating animals that, because of the...
kid-glove treatment, haven’t been made to be tough enough? Pressey thinks that’s exactly what is happening.

“You see what is happening, and yet all these horses still get hurt,” he said. “That’s what drives me crazy. Trainers do what they do and their horses still get hurt and they don’t see it as the cause. Then if you get someone to train more aggressively and they hurt a horse, they get blamed for being too aggressive. That doesn’t make any sense.”

To try and explain why horses run less often now than they did in the ‘50s and ‘60s, you have to look at how the industry has changed over the last 40 or 50 years. Arguably the single biggest difference between racing now and then is that drugs are a much bigger part of the equation.

Owner-breeder Gary Biszantz fondly remembers a simpler time when horses ran more often and did so without any assistance from a plethora of medications. Biszantz raced his first horse in 1956 and, of course, it ran without bute, Lasix, anabolic steroids, corticosteroids, clenbuterol or anything else. Integrity has always been important to him, and he is proud of the fact that never once has a horse he owns test positive for a prohibited drug.

Over the years, Biszantz saw drugs creep more and more into the fabric of the sport. He, like most other owners, was told that drugs would do the horses, the sport and the owners nothing but good; they would create healthier horses that, thanks to the magic of modern medicine, were able to run more often than ever. He says he and everyone else were sold a bill of goods.

“Horses are not the same,” he said. “The veterinary community misled the American racing industry into thinking that increasing the amounts of medication we gave these horses would do numerous good things. It would make them run faster, their careers would be longer, the field sizes would be larger and they would get hurt less often. One hundred percent of what they said has gone the other way. Everything. We have seen a dramatic increase in the amount of medications given to horses and careers have never been shorter, we have smaller fields than ever and the horses don’t have as much stamina.”

Arthur Hancock says that the reason horses don’t last is that, instead of being given time to heal when they are hurt, they are injected with drugs in order to get them back on track.

“Pain is a friend,” he said. “If a horse has pain you need to give him rest. To not do so is like trying to run a crippled man on medication. Let the man heal up before he races.”

Like Biszantz, Hancock places much of the blame for what has happened with the track veterinarians.

“With the racetrack veterinarians, I’m not saying they are bad people, but a culture has evolved and, with that, they have hijacked this industry,” he said. “A lot of owners are sick and tired of pay-
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Pulpit - Caress

GOOD REWARD
Storm Cat - Heavenly Prize

WAR CHANT
Danzig - Hollywood Wildcat

YES IT’S TRUE
Is It True - Clever Monique
ing $1,000 a month in vet bills or buying a yearling for $200,000 and having it make five starts or fewer and then break down.”

And no drug is more prevalent today than Lasix. In 1960, the idea of injecting a horse with the diuretic was unheard of; today, virtually every horse that competes in North America does so with the assistance of Lasix.

According to research done by author Bill Heller in his book “Run, Baby, Run,” the late veterinarian Dr. Alex Harthill was among the first to give Lasix to racehorses, and says he treated Northern Dancer with the drug in 1964. It was illegal at the time, but it appears that Harthill’s idea that he could control bleeding in horses with a drug that was devised for humans to treat congestive heart failure and edema caught on quickly.

That some horses seemed to improve dramatically once treated with Lasix made it even more popular on the backstretches of American racetracks. According to Heller, by 1975, Lasix was legal in Colorado, California, Florida, Illinois, Kentucky, Louisiana, Maryland, Nebraska, New Mexico and Ohio.

In 1995, New York, the last bastion of hay, oats and water, fell. When the 1995 Belmont fall meet began in September with Lasix now allowed, every racing state in the country had become a drug state.

Trainer Ken McPeek believes Lasix is definitely among the reasons horses are racing less often than ever.

“Lasix takes off water and those fluids need to be replenished,” McPeek said. “It takes longer to get horses back to the races because of this. There is certainly a merit to the argument that there are horses that need it, but what percentage is that really? It’s lower than it is higher. Absolutely, Lasix affects the amount of starts per year for a horse.”

McPeek reasons that dehydrating a horse and then asking it to give maximum effort on the racetrack, and sometimes in hot weather, must have a taxing affect.

“We’ve measured the average weight drop for a horse after a shot of Lasix, and it is 20 to 30 pounds of water weight,” he said. “I’m talking about from the moment they get the shot, to when they run, to when they cool off and to when we put them back on the scale. Between losing water from sweating and water from the Lasix, it’s always been at least 20 to 30 pounds and that’s a lot of water weight. So that water has to be replenished. Draining that much water from a horse, they need time to recover from that.”

Yet McPeek, like most trainers, runs virtually every horse in his stable on Lasix. He said he does so because he fears he will lose owners if he insists on running his horses Lasix-free. He has some experience with that problem.

“I had one particular horse [Wild and Wicked] and he ran his first four career starts without Lasix,” McPeek said. “He won his first three and then was fourth in the [2003] Haskell without Lasix. Well, I got chewed out by the owner because of that. He ran back in the Travers with Lasix and ran the same race. He was fourth again. After that, I got the horse taken away from me. All I was trying to do was do right by the horse, and it got me fired.”

After the Travers, Wild and Wicked made one more career start, finishing fourth in an allowance race in California for trainer Doug O’Neill.

In a study on how diuretics such as Lasix affect the human athlete, Lawrence Armstrong, a professor at the University of Connecticut’s Human Performance Laboratory, wrote, “Diuretics negatively affect athletic performance by reducing cardiorespiratory endurance and muscular strength. They also increase whole-body heat storage during exercise by reducing sweating and skin blood flow. These physiological effects, coupled with the potential for electrolyte [e.g., potassium] depletion, demonstrate that diuretic use is counterproductive and sometimes deleterious to health. Finally, because diuretics are banned by the IOC, the USOC and the NCAA, their use by athletes should not be accepted or ignored.”

Larry Bramlage argues that horses aren’t people. “Many of the quotes about Lasix–furosemide, Salix or what-
ever you call it—in the media are ridiculous physiologically. Horses are grazing animals; in the natural setting they often go to water only once every day. They can do this because they can store large volumes of water in their colon and access as their hydration status requires. Lasix is a short-acting diuretic. It causes the horse to lose sodium which takes water with it in the urine. The sodium is readily replenished in the short term from inside the cells, and in the long term from the diet. As long as you don’t give Lasix every day or don’t feed a feed without any salt, the horse has no long-term trouble with a dose of Lasix if you use the doses most commonly used. The water is readily replaced in the circulation from the colon. So the horse doesn’t dehydrate because it has a readily accessible replacement source, even if they don’t drink. The net effect of a dose of Lasix therefore does not affect the circulation as the water that passes out of the blood in the urine is just replaced from the colon. But, the net effect of loss of a gallon of urine is to remove a gallon of water from the colon. A gallon of water weighs eight pounds, so the horse is eight pounds lighter. So, in therapeutic doses you get no dehydration and do so every time they race—remain largely unanswered. I may not be a finely tuned equine athlete, but I do run and know what it’s like to try to rebound from rigorous exercise. So I decided to try to answer the questions a horse can’t answer, namely whether or not using Lasix had a debilitating effect on my running. Trying to be as scientific as possible, I did two trials in which I did a hard run with Lasix and one without. The idea was to make each trial as identical, with the lone exception that in the second one I would run after ingesting Lasix. I was mostly concerned with how I felt after the hard run and whether not running on Lasix seemed to wear me out more so than when I ran without it.

I am 49 and, thanks to a workout routine I began early in the year in an effort to lose weight, am in pretty good shape. The workouts listed below are typical of what I have been doing throughout the year, which is to have a taxing run followed by easier routines in the following days, and then to repeat the pattern all over again. Rest is important. I am capable of running a half-marathon and have done so, but wouldn’t dream of doing something like that more often than twice a month and not without serious rest in between.

Trial 1

Drug Free

August 4 (Day 1)
This is the day of serious exercise where I run as fast as I possibly can for one mile. I weigh 192.2 pounds when waking up in the morning and am up to 192.8 when ready to do my one-mile run at 10:30 a.m. On a warm day (88 degrees), I hit the track and run my fastest mile since I began to get in shape. My time is 6:59, something that should definitely knock me out for a few days and is a big effort for me. Put it this way: I just ran a 2 on the sheets and a bounce is inevitable. I follow the mile run with light exercise for the next 75 minutes, walking 3 ½ miles and jogging 2 ¼ miles.

August 5 (Day 2)
I am definitely beat up. I take a brisk 30-minute walk and follow that with a 30-minute run in which I average 10 minutes per mile. My left hamstring is killing me. I feel worse now than I did when I ran and walked after the mile the day before.

August 6 (Day 3)
I am tired, but my hamstring feels better. I go on a long bike ride, which I never find to be as hard as running. I ride for 90 minutes, covering 25.79 miles. My average speed is 17.7 miles per hour, which is outstanding for me.
August 7 (Day 4)
Rest day. Taking it easy today to prepare for another mile run.

August 8 (Day 5)
Another hard mile, with the idea being to see how much the first mile took out of me. The answer is, quite a bit. It took me 7:14 to finish this time, a full 15 seconds slower than my time four days earlier. It’s a discouraging performance, but proof that I can’t bounce right back from a very tough performance. The heat isn’t helping. It’s 91 degrees.

August 9 (Day 6)
Another rest day...so that I can be fresh for the next demanding mile. Go to Yankee-Red Sox game with my son. I hate the Yankees. Sox win. A great day.

August 10 (Day 1)
Begin the day weighing 194.6 pounds. How did I gain over two pounds with all of that exercise? Must have been the hot dogs at Yankee Stadium. Take 60 milligrams of Lasix at 10:30. Spend the next two hours glued to the toilet, urinating eight times. Prepare to run at 1 p.m. Weigh myself again and have lost 5.6 pounds. Amazing. It’s again 88 degrees, exactly the same as it was during mile day during the first trial, with brutal humidity. Not that I feel great, but I don’t feel nearly as awful as I figured I would after drugging and dehydrating myself. My wife tries to talk me out of this foolishness, figures there’s a good chance I am going to drop dead. I’m juiced. If I did a 6:59 the other day, how fast will I be with these drugs coursing through my system? Do I hear 6:30? My final time is 7:09. So much for the performance-enhancing drugs theory. The strangest part is that I barely sweat while running. I guess that’s what happens when you’ve drained every last fluid out of your system. Again follow the big run with 3 ½ miles of walking and 2 ¼ miles of jogging. I am definitely dead tired after it is over.

August 11 (Day 2)
Again do a brisk walk followed by a slow 30-minute jog. Hamstring again hurts and I am tired, but nothing out of the ordinary. Can’t say I feel any worse than I did on Day 2 of Trial 1.

August 12 (Day 3)
Can’t bike because of rain. Switch to running. Run 6.3 miles on a treadmill at a slow pace, 9:31 miles. Am really lethargic, both mentally and physically. No energy or spark. Afterward, walk for 30 minutes. First time I can truly say I feel worse during Lasix trial than I did during non-Lasix trial.

August 13 (Day 4)
Rest.

August 14 (Day 5)
It’s a beautiful day, only 77. With some relief from 60 straight days or so of brutal summer heat, I figure I’m in for a great one-mile run to end the great Lasix experiment. Doesn’t happen. I run a 7:23 mile, about as bad as it gets for me. That’s 14 seconds slower than the mile on Day 1 of this trial. However, that’s just slightly less of a decline than the one I endured during Trial 1, when my time for the second mile dropped off by 15 seconds.

Conclusions
It’s debatable whether or not a 49-year-old man running a mile every few days is at all comparable to anything a Thoroughbred racehorse does. Nonetheless, I can’t say running with Lasix was all that different than running without Lasix, particularly when it came to how easy or difficult it was for me to bounce back from big efforts.

The most noticeable differences with the Lasix were the rapid and dramatic weight loss and the failure to perspire when running. Over the long haul, I can’t imagine those sorts of things are good for a person a horse. The other difference was that I was slower during the Lasix trial, which is the last thing that seems to happen with horses.

But Bob Baffert is not among those who want to see a return to drug-free racing. He believes horses would actually race less often than they do now if Lasix were banned.

“If we didn’t have Lasix, they would have to shut down racing because of a lack of horses,” Baffert said. “A lot of people would be out of a job. It’s very inhumane to let a horse bleed. Our medication rules are fine.”

Baffert believes the primary reason horses race so infrequently and are so injury-prone has to do with modern track surfaces.

“I think what has happened has to do with the care of the surfaces,” he said. “They worry less about them than other things. That’s why we were easy pickings for synthetic tracks. I was on a committee and we were thinking about what kind of track we would put in at Santa Anita if we went back to dirt. People asked who has the best dirt surface and everyone just said ‘I don’t know.’ In the old days, like when I was training Quarter Horses, the tracks were more like actual dirt. Now they’ve gone more to sand because sand can handle water much better. But the sand causes lots of wear and tear. Sand is very abrasive.”

Englehart, the Finger Lakes-based trainer, agrees that track surfaces are an on-going problem. “Most of the racetracks are now designed with stone dust bases so they can be used in inclement weather and during the winter months,” he said. “They didn’t use to be like that. All the tracks in the ‘50s and ‘60s were clay-based.”

Baffert and Englehart point their fingers at track surfaces. McPeek and Biszantz believe drugs are the primary culprits. But they appear to be in the minority. Among owners, trainers and breeders, there is a prevailing wisdom that the breed is in fact weaker; that the industry is churning out horses that are not as strong or durable as the animals from a few decades back, and that they are more injury-prone.

That could also have something to do with drugs. There are plenty of horses...
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– John Nerud

- 74.69% winners from starters.*
- 81% starters from foals.*
- 20.19 average starts per starter.**
- Ranks 9th among all active sires by earnings
  $59,006 average earnings per starter.**
- 4 stakes winners of 5 stakes races this year.

* StallionRegister.com 11/6/10
** The Jockey Club Online Fact Book, 2010

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who may not have been successful on the racetrack without artificial assistance from drugs that have gone on to become sires and broodmares. It makes sense that they would have passed on their imperfections to future generations.

But the more popular theory is that the sport has become obsessed with producing brilliant horses that peak early in their careers and flourish at seven furlongs and one mile.

That certainly wasn’t the case in the mid-to-late-1800s, a truly different time for the sport of horse racing. Born in 1850, Lexington was among the brightest Thoroughbred stars of his time. Though he only raced seven times, Lexington was obviously sturdy. (He was retired prematurely due to poor eyesight). Many of his races were four-mile events.

Sent off to stand at stud at Woodburn Stud in Spring Station, Kentucky, he was the leading sire in America 16 times. Lexington’s offspring won nine of the first 15 runnings of the Travers.

The dominant sire of the 1930s was Sir Gallahad III, a French-bred colt who stood at Claiborne Farm and was the leading sire in America four times. Some 60 years after the era of Lexington, much had already changed. Sir Gallahad III won at a mile and a quarter and competed in even longer races, but his forte was races at a mile or less. Fast forward to the 1980s and the top sire in the land was Mr. Prospector, a brilliant sprinter whose greatest accomplishments on the racetrack came in six-furlong races. He set six-furlong track records at both Gulfstream and Garden State.

“If we are breeding more for speed, then there will be more horses selected to go into training that were bred to be that type,” said Doug Antczak, a Cornell professor who specializes in equine genetics. “Then, we have more horses that have the phenotype or the genetic or physiological makeup to break down more easily. You will have more breakdowns and the horse will seem more fragile. That’s what I think is happening. We have changed the relative proportion of lighter faster horses from more solid endurance-type horses.

“We can make durable horses. They’re called draft horses. If you imagine a draft horse, an Arabian and a Thoroughbred and had a race among them, the Thoroughbred will win every time. Even the slowest Thoroughbred will beat the fastest Arabians and the fastest draft horses. What does that tell us about genetics? It tells us that the genes that control speed have been highly selected for in Thoroughbreds, much more so than in Arabians and in other breeds. Everyone wants fast horses, but fast horses cause breakdowns. If you breed fast horses, you are going to get breakdowns.”

Mr. Prospector was an anomaly when he went to stud, a horse that had blazing speed on the racetrack, but didn’t prove much when it came to winning major races, particularly longer races. That’s why he began his second career as a stallion in 1974 as an under-the-radar stud standing in Florida for a $7,500 fee. Thirty-six years later, the Mr. Prospector types seem to be everywhere.

Among the Top 25 leading sires by 2010 progeny earnings (TDN, as of November 11), there were 12 sires who never won a race at nine furlongs or longer. Five of those sires never won anything beyond seven furlongs.

“They definitely don’t make them like they used to,” trainer Nick Zito said. “There’s been a lot of talk about there being too many drugs, but if I wind up with a horse that only races once or twice I can’t blame that on medication. How can you be over-medicating when a horse is just getting started? I don’t see that as a factor.”

Zito is like most modern trainers in that he wants his good horses to have plenty of time between races. His Ice Box skipped this year’s Preakness after running a troubled second in the Ken-
tucky Derby and waited for the Belmont. That didn’t work—he finished ninth. But Zito has had plenty of success using similar methods. Birdstone finished eighth in the 2004 Kentucky Derby and did not run again until the Belmont, which he won. He then sat idle until the Travers, which also resulted in a victory.

But it wasn’t that long ago that Zito would run his horses far more often. His Kentucky Derby winner Strike the Gold raced in the three Triple Crown events, as well as the Jim Dandy, Travers, Woodward, Jockey Club Gold Cup and Breeders’ Cup Classic in 1991. He made 12 starts that year, and 31 in his career.

“He was a throwback,” Zito said of Strike the Gold. “But look at his breeding. He was by Alydar out of a Hatchet Man mare. That’s the Calumet family and the Greentree family. Those sorts of things are things of the past.”

Zito says that many top mares with solid, classic pedigrees were bought by foreign interests in the ‘80s and whisked away to Europe and Japan. He believes that by taking so many of those sorts of mares out of the American gene pool, the U.S.-born horse has been weakened.

Even Dr. Bailey, the University of Kentucky geneticist who is skeptical that the breed has undergone any significant changes, does point out that it is not impossible for a species to change in what amounts to overnight.

“There is a precedent that we have recently learned of—people who experienced famine in the last 50 years, the Dutch in World War II and the Chinese in 1958-59,” he said. “They had children who were smaller in stature, shorter-lived and more prone to disease. The thought is that the effects on the parents impacted the sperm and eggs of the parents such that their children were constitutionally affected. This is called epigenetics. The effects may have been passed on to the grandchildren as well. The changes were remarkable.

“I believe in watching a horse train, and if the horse is doing well, why not run them?”

Gary Contessa

“According to theory, the DNA itself did not change and the descendents of these suffering people would eventually recover. But the deprivation is thought to have changed how genes were expressed during the development and lifetime of offspring. This observation was also in contrast to the effect on Japanese children, who tended to be larger than their parents following World War II due to a higher protein diet during growth. These are things we don’t understand well, but the point is that changes in management during one generation can have a profound impact on the health of the next, and possibly the third generation.

“I do not know of any changes in management of Thoroughbred horses over the last 60 years that would lead one to think that this is the case for these horses. But you asked me to speculate on what could cause such changes. Perhaps someone can identify a management change or a dietary supplement that has been universal and potentially devastating to the current generation of horses. But I am unaware that Thoroughbred horses were raised under conditions of stress that would result in the effects that are being described.”

Yet, something is different. Horses race infrequently, get hurt a lot, and many are convinced breeders are turning out a weak, infirm animal.

There’s no reason why things can’t change again. Perhaps a trainer like Gary Contessa will become the flavor of
the month some day, or the person others copy. If nothing else, he is getting more out of his horses than most, and his owners don’t seem to have any complaints with his approach because he is making many of them money.

Contessa came up under Hall of Famer Frank Martin, an old-school claiming trainer who believed in running his horses as much as possible. While Contessa may not operate his stable like a typical trainer from the ’50s, many of his horses are kept busy.

And what he does is working. Contessa has been the leading trainer in New York in the annual standings every year from 2006 through 2009 and is once again in front in the 2010 race.

Much of Contessa’s success has to do with how often he runs his horses and the number of overall starts his stable makes. In 2010 so far, he has made more than 600 starts, more than twice as many as any other trainer. Over a 31-day period beginning in mid-June, he ran a cheap claiming filly named Mighty Irish four times. She won two races during that period, finished second in another start and third in still another. During that period, she earned $32,000 for owner Edward McGettigan.

“I believe in watching a horse train, and if the horse is doing well, why not run them?” Contessa said. “Mighty Irish ran four times in a month and has two wins and second and a third and that owner made money with a sub-par horse because of it. I could have run her once a month. But she was good, so I ran her.”

When it comes to what he believes his job to be, Contessa isn’t any different from Pletcher, Baffert or anyone else. He understands that it is to do his best to make money for his clients. It’s just that he believes that often means running a horse as much as possible, as long as the horse is fit and healthy. Does he think his owners make more money because of that strategy?

“Yes,” he answered. “It’s an absolute given that you have to run to make money.”

Contessa will be given the occasional well-bred horse to train—he’s won 11 graded stakes since 2006. But he mainly deals in cheaper stock and New York-breds. That may have something to do with the fact that he routinely wins about 14 or 15 percent of his races, well below the numbers trainers like Pletcher, Baffert, Rick Dutrow and Steve Asmussen post. That’s what happens when you aren’t incredibly picky about where you run your horses.

“I could win a higher percentage if I wanted to,” Contessa maintained. “To do that, though, I’d have to do what some other trainers do around here. Any time they see a situation where they can’t win, they’ll scratch their horse. That’s how obsessed some of these guys are with their winning percentages. It’s become a vanity thing. I don’t believe in that.”

Robert Clay shares that philosophy. The owner of Three Chimneys Farm, he uses Jerkens as one of his trainers, and has no problems when Jerkens decides to run one of his horses back in two weeks or less. Like most, though, he believes the overall picture concerning durability and the modern Thoroughbred is a complicated one. No matter what may be going on, he believes that he and his fellow commercial breeders need to start putting more of an emphasis on durability.

“The American breeder especially, but the international breeder as well, has had more of an appetite for brilliance than they have for durability,” Clay said. “That’s sort of the American way—faster is better. I’m not sure that won’t shift back some. We have horses that are very, very sound. Dynaformer is an example. The breeder now has the challenge to combine the ingredients and come up with a brilliant horse that produces sound horses and has commercial appeal.”

Clay sees a scenario where economics will come into play and start forcing breeders to create sturdier horses. He says that a time will come when trainers and owners will realize they cannot make money if their horses continue to only start two or three times a year.

“Let’s say a trainer goes to the sales for five years and buys nothing but sprinters or horses that look brilliant, and they all break down,” Clay said. “He’s going to have an empty barn and no owners. He’s got to come back and say to himself, ‘Hey, wait a minute; I’m not going to do that again. I have to have some durability in there. I have to...”

Robert Clay

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Robert Clay

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have horses in my barn last longer so I can make a living.’

“Take the commercial breeder. That trainer is his customer, so if those trainers start coming up to me and saying, ‘what do you have in your barn that’s got some soundness?’ then I’ve got to react. I better start breeding to more Dynaformer mares than (mares by less sound sires). The market is the great equalizer. Do we allow things to get to where the average number of starts per horse goes all the way down to two? I don’t think so.”

Clay already sees some movement in the direction of durability and away from speed and brilliance.

“I’m not going to name horses, but I see horses that aren’t as popular today as they were five or 10 years ago because they’re getting unsound progeny,” he said.

Clay’s job is to breed horses that make money for the people who buy them or race them. Pletcher says that at the end of the day, it all comes down to economics. He’s not wrong; at least when it comes to a game that has become more and more of a business and less of a sport. But are too many owners and trainers guilty of undertaking quixotic pursuits? They may want to make money owning racehorses, but few do. Putting the sport back into the sport may also help create a different paradigm.

“We have got to forget about this notion that people are in horse racing to make money,” consultant Dan Rosenberg said. “The odds of you making money are not in your favor. If that is your ambition, you ought to get out.”

Trainers can’t make money by not running, either.

But it is the sport as a whole that suffers the most. Short fields are an anathema; gamblers hate them and stay away. Hollywood Park has had to cancel racing a handful of times because of a lack of names in the entry box, and even Saratoga has had to lower its standards to run conditioned $10,000 races in order to come up with enough races with enough horses.

Arthur Hancock fears that foreigners are close to the point where they will no longer buy American-bred horses at the sales because of concerns about their fragility.

“Already, we’re seeing that people from Europe and the rest of the world don’t want to buy over here,” he said. “They still buy, but they are wary because now we are selling them horses who have drugs in their families going back two, three generations.”

With gains in total handle of 213% at the elite Monmouth meet, where average field size has grown because of the rich purses the track offered this year, there’s no doubt that the sport needs to start offering the type of betting product the customer is demanding. That also includes competitive fields when it comes to stakes races, which too often include one dominant odds-on favorite facing four or five challengers. This year’s Triple Crown will be remem-