



By Caton Bredar

HOOV MATTERS

In 1889, for the fourth edition of his book "The Racehorse in Training with Hints on Racing and Racing Reforms", the English jockey turned horse trainer William Day added a chapter on shoeing, his preface stating "...one topic, highly important to all owners of horses, 'Shoeing'...might advantageously be added...the aim to deal with facts and to avoid speculation."

Day wraps up by adding that he hopes "it will be found...that the best method of shoeing and of the treatment of the foot has been not only discussed but actually verified... that the prevention which, in the diseases of the feet...is better than cure and has been placed nearer the reach of all."

If only.

Nearly 120 years after Day and his book, the "cure" for many horsemen plagued regularly by a variety of hoof ailments and issues seems as far out of reach as ever. With quarter cracks as common as quarter poles, horsemen particularly in North America continue to play out a modern day version of Cinderella, looking for the shoe that leads to happily ever after, or at the very least, to happily and soundly on the racetrack. Among farriers, veterinarians and trainers there appears to be little agreement and

much speculation when it comes to the shoeing of Thoroughbreds.

With no "best method" at hand, everyone can, in theory, agree with the familiar adage "no foot, no horse". But there is great controversy surrounding how to go about improving horse hooves and preventing injury, or even why horses have so many hoof-related problems in the first place. When it comes down to the sole of the matter, at the end of the day, hoof care may well turn out to be the Achilles Heel of the Thoroughbred racing industry.

Most recently, the break-down and subsequent death of Kentucky Derby winner Barbaro brought the topic of equine injuries, and, more specifically, laminitis, to the forefront. Since Barbaro, racetracks across the nation have spent millions, respectively, installing synthetic



surfaces, all espoused to be safer and more cushioned for horses. A record \$1.1 million distributed this year by the Grayson-Jockey Club Research Foundation to numerous equine research projects may also well be a direct result of the late champion's demise.

Last fall, the foundation designated a Hoof Care and Shoeing Task Force, another possible throw-back to Barbaro and the subsequent focus on equine injuries. In the task force's first official report this past April, prominent owner and breeder Bill Casner outlined one possible cause of injuries in "The Detrimental Effects of Toe Grabs: Thoroughbred Racehorses at Risk". Endorsed by the Jockey Club, the Grayson Foundation and the Kentucky Horseshoeing School, the report placed the lion's share of the blame for catastrophic injuries - and hoof-related issues - on the use of toe grabs in horse shoeing.

Thoroughbred anatomy plays a role, according to the report: the fact that bone structure and hoof walls aren't matured in

the average racehorse; also the length of pastern or the type of hoof. The report also briefly mentions harder racetrack surfaces. But the overwhelming research revolved around the link between injuries and toe grabs.

Such thinking, according to at least one long-time farrier, may be what's keeping the industry from finding Cinderella's shoe. A self-proclaimed maverick, "as far out there as I can be," North Carolina-based farrier David Richards believes rather than looking at the shoe, researchers should look at the foot.

Richards has been shoeing horses for the last 30 years. When asked what type or breed of horse he specializes in, the farrier replies "lame ones". According to Richards, around 20 to 30 percent of the horses he works on annually are Thoroughbreds. Seventy to 90 percent of all the lameness problems he sees, according to Richards, are related to the hoof wall.

"We need to look more at hoof wall as

a site of failure," the farrier says, a principal which has become the backbone of "Equicast," a product Richards has been developing and marketing for nearly 20 years. The cast, a tape-like, fiber-glass blend, covers the hoof, extending up to the hairline at the coronet band, with a shoe attached either on top of, or beneath, the cast. Its creator likens it to a walking cast in humans, with the event that Thoroughbreds are able to exercise while wearing it, although "there's a big difference between hoof and human bone."

"The key is managing lateral expansion," Richards elaborates, "to prevent an overload of the hoof wall, causing hoof problems and pain. The hoof wall is the point of least resistance." The cast "provides additional support and relieves pressure on the hoof wall," he says, adding that his product minimizes heat and moisture, factors that also play a role in weakening hoof walls.

"When you adhere a shoe to a foot, you are frequently encapsulating bacterial



materials,” the farrier offers. “Also, most apoxies are heat generating, and the hoof wall is already a great conductor of heat.”

Common solutions such as vitamin or feed supplements have a minimal effect at best, according to Richards. “The huge problem with any of that is that horses have very poor circulation to their feet.” Circulation issues cause problems all their own in terms of growth and healing, but they also minimize the effect of anything ingested making a difference.

Richards believes a host of factors contribute to a general weakening of the structure of the hoof wall, “a complex and sometimes contradictory” situation that covers nearly everything wrong with feet, from quarter cracks to long toe-low heel to medial lateral imbalances and White Line Disease.

“There’s actually no problem in growing feet,” he offers. “The problem is in growing strong feet.”

“We definitely see a more volatile foot today,” he concedes, citing feeding programs that cause quicker growth, synthetic surfaces that don’t

stress the feet enough, and trends in commercial breeding as just a few of the possible contributing factors.

“One of the things we’re doing wrong, we’re not stressing the feet enough,” he says. “From the day that they’re born we’re coddling the foot.”

“I’ve never heard of a breeder breeding for feet,” Richards adds. “I can think of one really prominent sire that’s a classic example. I have four young horses by the same sire. Four babies right now that already have conformational issues. The sire has a great mind, tremendous ability. But his foals aren’t known for their feet.”

“You can’t knock it,” he continues. “But you have to accept the ramifications.” And figure out how to deal with them.

Richards looks to external factors as much as internal as a source of the problems. “Horses who run almost exclusively on turf don’t have half the problems as horses who run on sand,” he says. “They don’t have the shock factor. It’s unfortunate, but if something doesn’t stimulate feet to get harder, they get softer.”

Another factor Richards feels may contribute to weaker hoof walls is moisture. “Feet problems are something plaguing all horses evenly, from coast to coast,” he says. “Very little else is constant. Feed differs East to West, other things are different. One thing that’s constant, moisture. And variables of moisture.”

Richards laments the fact that little has been done to research the effect of moisture on feet, or whether different parts of the hoof, or different types of hooves, absorb water differently. He’s currently doing his own research on white hooves to see how they react to moisture and believes it may lead to some answers for common problems.

“The industry is very grand-fathered in mentality,”



he says. "It's 'my father did it that way, and his father did it that way.' There's a resistance to new products," he continues. "The diagnostics now have surpassed the treatment. We're always working with the result of the cause, rather than looking for the cause itself. We're looking through the answer, for the answer."

Looking down, rather than up, is another part of the problem according to Richards. "The goal is to balance the horse," he offers. "It doesn't matter what the sport, you're ultimately judged on symmetry. There are times when I'm trying to figure out what's wrong with a horse's feet, instead of looking down at the foot, I look up to see which shoulder is higher. I'm one of a very few who are cognizant of the whole foot - not just the heel and the toe," and just as important, how the whole foot fits with the rest of the horse.

Richards explains that the majority of the horses he looks at have one leg longer than the other, either from birth or wear and tear. He goes on to explain that the average 1,000 pound horse exerts 54 pounds per square inch on the hoof wall with every stride. When that horse is shod, Richards says, the weight on the hoof wall is nearly doubled, to 95 pounds per square inch. A typical racing plate exacerbates the problem even more.

"We need to transition out of the conventional shoe," he says. "We are overloading the coronary band."

"One of my criticisms of the industry," he continues, "there is a total misunderstanding of what foot issues really are. Feet are no man's land."

"Shoes haven't changed much over the years," he adds. "They're prettier, but they're going the wrong way. They mask the problems rather than reverse them. The horse may have a longer life on the track, but not a more productive or sounder one."

"It's a horrible misnomer to say shoes are corrective," Richards continues. "They're not corrective. They are totally

protective," a line of thinking which supports the barefoot practitioners, who believe in eliminating shoes entirely at least part of the time.

"I'm a huge proponent of it," he says. "A horse should be totally comfortable doing his respective sport barefoot. The foot is much better at managing us than we are at managing the foot with conventional methods."

And while at least a few trainers are known to place blame on farriers, Richards holds veterinarians just as accountable, as they are generally the ones who actually diagnose the problems.

"They know what's wrong, but they often don't know how to treat it," he says. But in defense of the vets, "there's a lot of misinformation and a lack of communication."

Perhaps the biggest culprit, from Richards perspective, is a close-mindedness and lack of commitment to the finding the cause of the problem and fixing it.

"There are a lot of things we need to do as an industry," he says. "As an industry, we need to set a standard. There should be an orthopedic certification program, for example, that's taught to both vets and to farriers. The vets will have to dummy down a little and the farriers will have to bone up."

"But a lot of this is just common sense. A horse with a foot bothering him is like having a tire with less air in the tire. You wouldn't drive a car with less air in one tire, you'd fix the tire. You wouldn't sit in a chair with one leg shorter than the others."

Richards believes we ask our horses to perform that way all the time. He believes at least some of the money for research should be re-allocated, or new money dedicated specifically to hoof issues. "What we need is to fix a flat."

"How much more does New Bolton really need?" he asks referring to the clinic that treated Barbaro through his final days and has since received hundreds of thousands of dollars in donations for research.

"Problems evolve for a reason," says Richards, who believes the reason almost always rests in the hoof wall. "If we find an effective way to address the problem, it will make a difference that could be revolutionary."

A difference hundreds of years in the making.

