

Who and What

- Equine studies funded by the Grayson-Jockey Club Research Foundation include work on **stem cells** at Cornell University and Guelph University; a project at the University of Pennsylvania to look at molecular and cellular changes in **laminitic horses**; work on **uterine blood supply** as it relates to infertility at the University of California, Davis; and a study conducted at the University of Tennessee related to the use of levothyroxine as a treatment for **insulin resistance**.

- **A test for equine osteoarthritis** has been developed by researchers in Italy. The test uses proton nuclear magnetic resonance spectroscopy, an imaging technique specially designed for liquids, to detect specific **metabolic products in joint fluid**. The profile of synovial fluid varies depending on whether the sample is taken from a normal or an arthritic joint.

- In an effort to discourage **cribbing**, some veterinarians have reportedly been placing small metal rings into the horse's upper gums between the incisors. The theory is that the presence of these **"hog rings"** will cause pain if the horse cribs. Concerned that the practice might cause unnecessary discomfort and possibly invite infection, the American Association of Equine Practitioners' Equine Welfare Committee issued a comment that the **use of "hog rings" should be discouraged** until it could be shown that the rings were not harmful to the horse.

- Imported **fire ants** were introduced to the **southern U.S.** about 75 years ago, and have broadened their range in the intervening years. Colonies can be found in Texas, Oklahoma, Louisiana, Arkansas, Mississippi, Alabama, Georgia, Florida, and South Carolina, with a few scattered instances in California and New Mexico. The ants sting and bite simultaneously, causing a swollen spot that is intensely painful and itchy. While irritating to horses, fire ants are **not a serious threat to mature animals**. They may, however, be **harmful to small foals**, with a case of laminitis reportedly caused by multiple stings in a weanling. On a positive note, fire ants are **tick predators**, and can significantly reduce the number of ticks in a pasture. For **control measures** approved for a particular area, contact the local agricultural extension office.

- Using lightweight heart monitors to collect data on **trotters and pacers during actual races**, scientists at the University of Guelph found some surprising results. **Maximum heart rates routinely reached 280 or 290 beats per minute**, and some went well over 300 beats per minute. Maximum rate was usually reached during the first quarter of the race. However, elevated heart rate was not necessarily correlated with an increase in cardiac output, according to the researchers, because some hearts are more efficient than others in the amount of blood delivered in one contraction.

- Which foals are at risk of developing **osteochondrosis**, a crippling joint problem? In a recent study, **osteocalcin levels in blood samples** drawn from foals as early as two weeks after birth showed a correlation with the incidence of osteochondrosis identified by radiographs when the foals were 5.5 and 11 months old. This technique, which was developed in Europe, could allow managers to **regulate nutrition and growth** very early in a foal's life to **ward off the condition**.

- Should you **deworm** your barn dogs, cats, goats, and sheep when you deworm your horses to avoid animals passing their parasites to their barn buddies of different species? According to an “Ask the Vet” column in *The Horse*, this possibility is not a great concern for horses, as **most equine parasites are host-specific** and would not easily move from one species to another. Some other species do share parasites, however; check with your veterinarian as to protocols for each type of animal on your premises.
- An article in *Equine Veterinary Education* warns horse owners that **horses eating ripe persimmons may develop bezoars (hardened concretions)** made up of persimmon fibers. These masses can cause irritation if they disrupt or block the flow of ingested material in the digestive tract. Severe discomfort may not be noticed until several months after ingestion of persimmons, so if horses with access to persimmons develop **colic signs** at any time, owners need to mention this possibility to an attending veterinarian. The article also mentions that administration of a carbonated cola drink via nasogastric tube has been shown to help dissolve bezoars in both horses and humans. *Kentucky Equine Research advocates veterinary consultation to diagnose and treat signs of abdominal discomfort in horses.*
- **Stereotypies** are repetitive behaviors like **weaving, stall walking, head bobbing, and cribbing** that are often seen in horses that spend a great deal of time confined to their stalls. A study conducted in France involved 70 horses, 51 of which exhibited stereotypic behavior. In the study, each horse could get a treat by using its nose to open a box. Among the horses that did not show stereotypies, 85% quickly learned to open the box, while **less than 30% of the horses with stereotypies mastered the skill** in the time allowed. While there is no certain explanation of why these repetitive habits are linked to **horses that learn more slowly**, horse trainers should take this characteristic into consideration. Owners might also look at ways to allow horses more time for unconfined exercise, as this may minimize the development of stereotypies in some equines.
- Are **artificial racetrack surfaces** safer for horses? Initial numbers seemed to indicate fewer fatal injuries with the synthetic track surfaces, but an eight-month study at 42 North American racetracks found 1.96 deaths per 1000 starts on dirt tracks and 1.95 death per 1000 starts on synthetic surfaces. Many factors, of which track surface is one, must be considered when assigning blame for **racing injuries**.
- **Three-phase events for gaited horses** offer a way to show the athletic talent of horses that don't trot or jump, and therefore can't participate in traditional three-day events. The events feature a **dressage** test adapted for gaited horses, a **cross-country** obstacle course, and a stadium obstacle course. Horses may be asked to negotiate bridges, gates, water crossings, and other features that might be encountered during **pleasure or trail riding**. For more information on this type of competition, go to www.threephaseevent.com.
- The University of Saskatchewan has conducted a study that revealed facts about **West Nile infection**. In this Canadian province, 133 horses were diagnosed with WNV in 2003. The fatality rate (horses that died or were euthanized) was 82% for stallions, 45% for geldings, and 36% for mares. Of the **horses that died**, 45% had been fully vaccinated against the disease. The numbers also seemed to indicate that **horses with light-colored coats** succumbed at a higher rate than those with darker coats, although the relatively small sample size might call these results into question.
- More than half of all horse owners have at least one **horse that is more than sixteen years old**, according to a national survey. The majority of owners have more than one horse. The average number owned by one person is five.