

Who and What

- Despite unfavorable weather patterns and other problems affecting growing seasons around the world, the International Grains Council has predicted **record production for the 2008-2009 grain harvest**. Projected total harvest is around 1.694 billion metric tons, a significant increase from 2007-2008 yields.

- What's more natural than allowing your horses to **drink out of a pond** in their pasture? This pretty picture is often not the best practice for a number of reasons, including **trampling of banks and contamination of waterways**. Unfortunately, farm ponds are often plagued with a heavy growth of algae. Limiting nutrients, light, and heat may discourage algae. For a new pond, consider placement that will minimize runoff of fertilizer and manure into the water. Use rooted aquatic plants, free-floating surface plants such as water lilies, or surface-floating netting to shade the water and compete for nutrients. Before treating the pond with copper sulfate, test the alkalinity; a larger amount may be needed if the water is strongly alkaline, but overtreatment may kill fish and plants.

- The first **horse produced by cloning** has given birth to a healthy foal. Prometea, a cloned Haflinger mare born in 2003, was artificially inseminated and gave birth to a colt named Pegaso this spring. Prometea and Pegaso live near the Reproduction Technology Laboratory in Cremona, Italy.

- PETA (People for the Ethical Treatment of Animals) has offered a prize of a million dollars to anyone who can develop a source of **economical, commercial-grade chicken meat in the laboratory, presumably from stem cells**. The meat must be produced in quantity and must have been sold in at least ten states at competitive prices by the end of June 2012 in order for a developer to claim the prize. Presumably this technology would eliminate having to kill chickens. The **"virtual chicken"** idea was reported in Poultry Times.

- Research in Scotland suggests that horses with **chronic laminitis** may have pain sensations due to **nerve damage** after subsidence of pressure and inflammation in the acute stage of the disease. Neuropathic pain could involve a heightened response to pain stimuli, the perception of pain in the absence of normal stimuli, and a lowered response to anti-inflammatory pain-relieving medications.

- **MRSA** (methicillin-resistant *Staphylococcus aureus*) bacteria are getting a lot of news coverage, but the presence of this strain is **not necessarily a death sentence**. In a recent study at the University of Guelph, 10% of veterinarians at an international conference showed the presence of MRSA in swabs of their nasal cavities. Like many other types of bacteria, this strain often colonizes the skin and mucous membranes of people and animals **without causing illness**. Frequent **hand-washing** can minimize the transfer of many types of harmful organisms including MRSA bacteria.

- **Horse racing** is one of the **oldest sports**, with chariot racing described in historic records as early as 800 B.C. England reported races in the 12th century, but the sport became much more popular with the advent of breeding for speed in the 17th and 18th centuries. With the establishment of the General Stud Book in 1793, pedigrees were formally recorded and the **modern Thoroughbred** began to emerge.

- **Stallion spermatozoa** are about 70 to 80 microns in length, about half the size of mouse spermatozoa. Spermatogenesis, the production of mature sperm cells, takes about 57 days, but this continuous process is capable of yielding **billions of sperm** during each breeding season. In spite of the huge number of viable sperm produced, conditions within the mare's reproductive tract result in the death of most sperm before they reach the ovum. On average, only about 0.0006% of sperm survive the trip to the mare's oviduct.

- Equine surveys in **Michigan and Virginia** in 2007 showed Michigan is home to about 155,000 horses living at 35,000 horse operations, while Virginia claimed about 215,000 horses at 41,000 horse operations. **Quarter Horses** were the most popular breed in both states. **Thoroughbreds** were the second choice in Virginia, while Michigan's second-most popular horses were **Paints**.

- **Omega-3 fatty acid supplementation** could lengthen a horse's trotting strides, according to a study conducted at Michigan State University. In the experiment, one group of horses was supplemented with omega-3 fatty acid for 75 days while a control group was given corn oil. Lameness scoring and gait analysis was performed on all horses before and after supplementation. There were no changes in post-supplementation lameness or in walk or canter stride length, but **trotting stride length tended to be longer** in horses supplemented with omega-3 fatty acid.

- The painful muscle cramping known as **tying-up** can result from several different causes. Dutch researchers have uncovered a previously unknown condition, multiple acyl-CoA dehydrogenase deficiency (MADD), that was previously described only in humans. MADD causes tying-up by **interfering with the metabolism of fat**, eventually leading to muscle dysfunction. While the condition is genetic in humans, it may be an acquired problem in horses.

- A year-long record of **foal deaths** evaluated at the University of Kentucky showed that, of all deaths in foals younger than six months, **two-thirds occurred before the foal was 30 days old**. The top five causes of death were septicemia, musculoskeletal injuries other than rib fractures, pneumonia, gastrointestinal problems, and rib fractures.

- According to a note in *Equus*, **Woolite is the detergent of choice to take stains off the coats of gray or white horses**. *As with any shampoo or cleaning agent, be sure to rinse very thoroughly. Kentucky Equine Research has not used this product on horses and makes no claim, positive or negative, as to the safety or efficacy of its use. If in doubt about the use of any product on horses, check with a veterinarian, and try the product on a small area to check for reactions before applying to large areas of the horse's skin.*

Wins and Wows

- **Storm Cat**, a leading stallion at Overbrook Farm in Kentucky, has been **retired from stud** at the age of 25. Storm Cat sired 88 yearlings that sold for \$1 million or more; 4 Breeders Cup race winners; and 98 graded stakes winners. His offspring earned over \$112 million at the track and sold for more than \$473 million at public auction.

- According to the owner of an English dairy farm, **cows yielded up to three liters more** milk when they watched a performance of tai chi, an ancient Chinese form of relaxation, each morning before being milked. The owner credits a higher level of pleasurable relaxation for the increase in milk volume.