



Talkin' Horses



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Healthy Horses: Failure to Conceive: Endometritis in the mare

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One of the most important causes of reduced fertility in the mare is endometritis. Endometritis is the inflammation of the lining (endometrium) of the uterus. This inflammation is often caused by an infection which can be due to the growth of bacteria, fungi, or yeast. These infections can be acquired during natural mating or artificial insemination; however, artificial insemination is usually associated with transmission of lower numbers of organisms.

A thorough history of the mare can help diagnose endometritis or other reasons of reduced fertility. The age of the mare, the number of foals she has produced and a history about previous (especially the most recent) foaling and post-partum period can give extra helpful information.

A normal uterus is protected from external contaminants by three physical barriers: the vulva, the vestibulo-vaginal sphincter and the cervix. Injury, anatomic abnormalities and loss of structural function of any of these barriers can permit the introduction of air and fecal or urinary contaminants into the uterus, causing endometritis.

Every mare experiences a transient period of endometritis

After breeding regardless of the type of mating used (artificial or natural). Most mares are able to clear contaminants and byproducts of inflammation from their uterus in the post breeding period, but some mares cannot. These mares have a disease called "Persistent post-mating induced endometritis", which is due to impaired uterine clearance mechanisms. With close monitoring by a veterinarian it is possible to establish a successful pregnancy in mares with PMIE.

Clinical signs:

In most mares no visible vaginal discharge or elevated temperature is seen. Sometimes a shorter interval between heats can be noted. A common presenting complaint of mares with PMIE is a negative 14-day pregnancy exam. These mares do not have a shortened interval between heats, and results of culture and cytology on the subsequent heat are usually negative.

Diagnosis:

Transrectal palpation and ultrasonography are important for detecting and determining the nature of free fluid in the

uterus. Mares with endometritis and especially mares with PMIE often have free fluid in their uterus. It is extremely important to examine the mare within 24 hours following mating to diagnose PMIE.

Endometritis is fairly easy to diagnose using a guarded swab to obtain a sample from the uterus for culture. Based on growth endometritis can be diagnosed, as well as the causative microorganism and its sensitivity pattern to anti microbial drugs. The mucus sample can also be submitted for cytology (analysis of the cell types, i.e. inflammatory cells) at the same time for a definitive diagnosis of endometritis. Sample acquisition should be during estrus.

A small piece of the endometrium can be obtained by biopsy as well. In addition to assessing the degree of inflammation, the presence of fibrosis around the endometrial glands can be evaluated and scored. Biopsy is especially useful in cases where a chronic endometritis is suspected. The biopsy score is used to predict the mare's chances of carry a foal to term.

The presence of endometrial

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cysts or other abnormalities within the uterus can be diagnosed using ultrasonography. Hysteroscopy (examination of the uterus with an endoscope) can give additional information about the severity of inflammation, adhesions or the presence of foreign bodies.

Treatment:

The goal of treatment is to remove the cause of endometritis and eliminate the inflammation. Any anatomic defects in the mare's reproductive tract should be repaired. Often a simple surgical procedure called a "Caslick vulvoplasty" (partial closure of the top portion of the vulvar lips) is performed. Other internal defects, .

such as loss of vestibulo-vaginal sphincter function or cervical lacerations, may need more invasive surgery.

Systemic and/or local antimicrobials based on culture and sensitivity results can be administered. Local treatment consists of an intrauterine infusion of a small volume of sterile saline combined with the appropriate antimicrobials during estrus. If PMIE is diagnosed, uterine lavage is recommended. This consists of an infusion and recovery of larger volumes of sterile saline with or without drugs that stimulate uterine contractions, such as oxytocin and prostaglandin, to clear the uterus of inflammatory

products and fluid. Oxytocin and prostaglandin are frequently given systemically as well, under the direction of your veterinarian.

Endometritis in the mare does not necessarily mean the end of her breeding career. Diagnostic results and the response to a treatment play an important role in formulating a prognosis for fertility. Most acute infections are easy to treat. Chronic infections are usually associated with a worsened prognosis, and increased treatment costs.

For additional information, contact your local veterinarian or the LSU School of Veterinary Medicine, 225-578-9500

Resources: eXtension Horses Learning Lesson - Understanding Horse Coat Color

eXtension's team of horse experts have developed **FREE** specialized lessons to provide the most complete information about horse care and management. This month we direct you to the Learning Lesson about Understanding Horse Coat Color.

The Objectives of this lesson includes:

1. Learning the basic coat colors of horses.
2. Learning the characteristics of each color.
3. Identifying color patterns of horses.

For more information or to utilize this great learning tool visit:

<http://www.extension.org/pages/11458/horsequest-learning-lessons:-understanding-horse-coat-color>



Resources: My Horse University Webcast – Find your dream job in the U.S. Horse Industry

By Dr. Christine Skelly, Michigan State University & Dr. Kathy Anderson, University of Nebraska

Along with eXtension Horse-Quest, My Horse University offers **FREE** monthly webcasts from September through May. Check back frequently for the latest presentations added to the lineup! You can also catch up on any webcasts you may have missed by watching recorded webcasts.

Do you dream of turning your passion into your profession? If your passion is horses, finding a career in the horse industry may be for you. The United States has the most diverse horse industry in the world, with a variety of breeds and disciplines supporting 2 million horse owners in both recreational

and competitive events. The U.S. Horse Industry produces 38.8 billion dollars annually of goods and services.

To register for the Webcast visit:

http://myhorseuniversity.com/resources/webcasts/jan_2011



Trainer's Corner: The eye is an amazing thing.

By Fran Hancock

“DOING LESS
SOONER WILL
SAVE YOU
FROM HAVING
TO DO MORE
LATER.”

Horses have monocular vision. Their eyes are placed on the side of their head as most prey animals. Predators, such as humans, have both eyes in the front of their heads. By having one eye on each side, the horse can see all around him on both sides, but the disadvantage is that his eyes do not focus together as ours do. The horse has some blind spots such as right in front of his face, under his chin, right behind his tail, and under his belly when he is looking ahead. He also has hardly any depth perception because of his eyes not focusing together. His eyes work like bifocals, but opposite of ours. He sees up close with the top half of his eye, and distances with the bottom half. This is why, when something moves on the horizon, he will throw his head up in order to look out of the bottom part of his eye. When something scares him by his feet, he will bow his neck and tuck his nose trying to look down out of the top part of his eye.

A lot is said about the driveline when talking about moving horses on the ground. Pressure behind the driveline will move them forward, and pressure in front of the driveline will slow them down or stop them. There is also another point of reference to consider, and that is the eye. When working a horse on the ground, you can use your position relative to the eye to enable you to control movement. There are three points of reference: the front corner of the eye, the middle of the eye, and the back corner of the eye. For instance, if you are asking your horse to go sideways, and he wants to walk forward too much, push with your hand toward the front corner of his eye. If he tries to back up too much, push the back corner of his eye. If all is going right, just push the middle. You will find that you can save yourself from having to go to the halter. Remember, doing less sooner will save you from having to do more later. Give it a try. Please call or email me if you have any questions.

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Environmental Equine: Current Issues

By Carol Franze

In Louisiana, we are fortunate that our horse farms are not regulated like other animal producers. However, many states do regulate storm water runoff from horse farms. Why should we worry about this in Louisiana? In 2009, LA Dept. of Environmental Quality found pollution entering streams during water quality monitoring surveys and determined the source of the pollution came from horse farms.

Your next question is likely: What kind of pollution would come from my horse farm? A large contributor to pollution in streams is simply mud. Horse barns and high traffic areas often contain large quantities of mud due to excessive traffic or overgrazing pasture land. Mud is more than a

nuisance to a horse owner and horse hoof health, it becomes a pollutant when eroded from the land and washed into a water body. Another large contributor of pollution in streams comes from mismanaged horse waste. Proper composting and reuse of manure can reduce excessive nutrient (forms of nitrogen and phosphorus) runoff to waterways. Reuse of composted manure as fertilizer on pasture land can save money. Additionally, composted manure can be sold as a fertilizer, potentially generating funds for the horse farm.

How can mud or nutrients be pollution in waterways? When it rains, water that doesn't soak into the ground disperses across land and is deposited into rivers, streams or coastal waters. As water moves across the land it picks up soil particles that contribute to turbidity.

Turbidity is the cloudiness of water caused by soil particles in the water column. Excessive turbidity results in decreased sunlight penetration into the water column. Sunlight provides the energy for oxygen production that fish and other aquatic animals need to breathe. When the water is highly turbid animals can quickly deplete the water of oxygen causing severe stress and even death. Water runoff also picks up nutrients, bacteria and toxins in its path. Nutrient rich waters typically become overgrown with algae that can turn the water green or blue-green. An excessive growth of algae can also block sunlight from penetrating into the water column. Oxygen is also used in the process of decomposition as the algae deplete the supply of nutrients and begin to die.

Environmental Equine: Current Issues Continued.



Why is LA Dept. of Environmental Quality monitoring for pollution in the rivers and streams in the state? In 1972 Congress passed the Clean Water Act requiring all states to develop a list of impaired water bodies in their state, called the 303(d) list. Impairments are standard maximum levels of pollution allowed by state regulatory agencies (our LA Dept. of Environmental Quality). The impaired list reflects waters that exceed a “Total Maximum Daily Load” (TMDL). Ultimately, the TMDL is a pollution budget for a water body. States are required to monitor or survey waters of the state for pollution. When a water body exceeds the TMDL for any pollution measured, like turbidity or fecal coliform bacteria, it is placed on the impaired list and becomes a priority to reduce the pollution. The state can be fined by the U.S. Environmental Protection Agency to enforce compliance with the Clean Water Act. However, states typically impose the fine at the local level to force compliance. This means the state may fine a parish government, a municipality, a private industry or an individual, if they are found to have caused the pollution. Fines are generally not simply a monetary payment, but include a reduction or complete elimination of the pollution source.

What can I do to ensure that my farm doesn’t contribute to pollution in waterways? The LSU AgCenter has developed an education program specifically designed for horse farms. This program includes best management practices in 8 fact-sheets that can be obtained online through the Equine web pages, and periodic workshops or clinics on pasture management, composting, impervious surfaces in high traffic areas, stable and barn management, soil stabilization options and manure management. Each of which will be featured in future editions of Talkin’ Horses.

CALENDER OF EVENTS

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**Click on the
events for more
information!**

February

- 12– ACHA Speed Event– FARR Park, Baton Rouge LA
- 18– La Stock Horse Association Show, West Monroe LA

March

- 10– La Stock Horse Association Show, Deridder LA
- 17&18– Louisiana Equine Council EXPO, Lake Charles LA
- 24– La Stock Horse Association Show, Lake Charles LA

To contribute or for more information please contact Dr. Neely Heidorn at nheidorn@agcenter.lsu.edu

Visit us at www.lsuagcenter.com or on the [Louisiana Master Horseman Facebook page](#).