BROODMARE EMERGENCY!

Part of the excitement of foaling season is the arrival of all that potential in a little horse body; the dreams of what they’ll become as adult horses and the joy of the journey in learning along the way. This is what makes the loss of a foal that much more devastating; the loss of a life, but also the end of those dreams. On March 31st, our senior broodmare, HD Massena “Boo”, aborted her foal at 8 1/2 months of pregnancy. It was a perfectly-formed chestnut colt by our stallion, Canon. An exam was performed on the foal and there were no obvious reasons for the abortion. It was declared “stuff happens”.

Unfortunately, when the placenta was passed, it was incomplete, leaving large pieces of the two uterine horns still firmly attached to the wall of the uterus. A couple of oxytocin injections later (to help uterine contractions possibly push out the remaining sections) and her temperature began to rise. Retained placenta, either full or partial, is a major medical emergency in mares. Due to the intensity of the treatment required, we decided that taking her to the vet clinic would be the best course of action.

Equine placental connections are diffuse between the placenta and the uterine lining—this is the place that nutrient and waste exchange between the mare and developing foal occurs. Some species, such as cattle have cotyledons or “buttons” of attachment for this purpose, giving the placenta a polka-dot appearance, vs. the equine placenta is a smooth velvety red of microcotyledons, as if the placenta were “velcroed” to the lining. Because they’re so closely and tightly connected, it is difficult to separate and manual separation is almost never recommended.

The vet and tech team at Vermont Large Animal Clinic provided support care for Boo to help her through the endo-toxemia which frequently accompanies any systemic insult. Laminitis
BETTER UNDERSTANDING YOUR HORSE
WITH FACIAL HAIR WHORLS

Several studies have used facial hair whorls as a tool to evaluate personality, and performance in horses and other livestock. Whorl patterns of cows have been studied in the United States by Temple Grandin, while equine hair whorl research seems to be more popular in Europe. It is hypothesized that facial hair whorl pattern and temperament are connected because hair follicles and skin develop from the same epithelium, or layer of cells, as the nervous system. The brain is the control center of the nervous system, so it is crucial for it to develop properly to allow the animal to function and behave normally. An “ideal” whorl is found centrally located between the eyes with a tightly wound epicenter. These whorl features have been shown to indicate a manageable temperament and focused mind. Several studies with cattle and horses determined that animals with whorls located between their eyes are the calmest and adjust well to novel environments compared to animals with lower or highly placed facial whorls. In addition to location, shape and direction of the whorl are important features to observe.

Hair whorls come in several shapes and sizes including feathered, linear, simple/radial, and even multiple whorls. Horses with multiple whorls can have aspects of multiple personalities, which correlates with the brain development theory. Facial hair whorls indicate the way in which energy flows through the horse. The more focused the swirl, the more possible focus of the mind. Thus, a whorl with a tight epicenter is indicative of the horse’s ability to focus on a task.

Directionality of the whorl can also correlate to equine behavior, particularly in motor function. Studies in Ireland have shown that there is a significant association with motor behavior and facial whorl direction. Left lateraledized horses had significantly more counter clockwise whorls while right lateraledized horses have significantly more clockwise whorls. This knowledge can be very useful when planning a training regimen. By predicting motor preferences, trainers can develop programs with specific training aids that work best for individual horses.

Because facial hair patterns are unique to individual horses, they have also even been used as a form of identification. They were used before lip tattoos were given to Thoroughbred horses. Another breed of horses, Konik horses, which are known for their mousy grey color and lack of white markings, use them to distinguish between individuals. This breed was also used to determine the heritability of the trait. It was determined that facial hair whorl position was a highly heritable trait, with estimated heritability of 0.8, on a zero to 1.0 scale.

Evaluating hair whorls can be done at any stage of life because hair patterns never change...and they are free of charge! Although you should not rely entirely on hair patterns to make purchasing or training decisions, they can provide useful hints as to why a horse behaves the way they do. Now I am sure you are itching to go out to the barn to check out your horse’s whorl!

— Alyssa Couse
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* References available upon request.
AN ITCH THAT AIN’T SO SWEET

After a long winter, it feels great to welcome summer back with open arms. But after about three weeks, you remember the horror that summer brings with it...flies! While many stables have great fly management strategies in place, many horses may still be at risk from biting insects. Sweet itch (aka Queensland itch) is a common equine skin allergy seen in various parts of the US as well as internationally.

Cause: Horses that suffer from sweet itch are hypersensitive to the saliva from a biting insect known as the Culicoides midge. The allergen in the saliva will cause a histamine release from the horse resulting in inflammation and itching of that area. Unfortunately, many horses will itch the areas until they bleed, creating greater risk for infection. Genetics play a large part in how sensitive a horse may be to the saliva, but many breeds are known to have issues with this particular allergy.

Symptoms: Horses with this allergy will show swelling, redness, and loss of hair along the mane, dock of the tail, face, chest into the midline, and around the scrotal area. As itching continues, these areas will become more prevalent, eventually leading to open sores or bald patches.

Prevention: Delaying the onset of this reaction is paramount in keeping your horses healthy during the summer months. As with many other fly management strategies, reducing standing water near your horses (breeding ground for the midges) is a primary goal. In addition, midges reside in wooded areas concealed in fallen foliage. Increasing distance from woodlands and dense foliage may aid in reducing the midge populations near your horses. Limit paddock or pasture access during dusk and dawn hours, when midge activity is at its highest. As midges have trouble flying in windy conditions, place a fan outside your horse’s stall or paddock to allow moving air around them. Providing garlic to your horse’s diet and using ample flyspray may also aid in reducing insect populations at the farm.

Treatment: Many treatment options are available pending the severity of your horse’s skin reaction. Many salves in combination with hydrocortisone creams are extremely successful in re-hydrating skin and reducing itching (Note to be careful around the face and eyes, especially with the concern of sweating on hot days). If the horse has a full breakout, check with your veterinarian about various options such as anti-histamines, allergy shots, and in more severe cases, steroids. Once the horse has a breakout, continue to keep an eye for further swelling and inflammation, as the animal has a greater chance of developing a secondary infection from these open wounds.

Knowing the symptoms, prevention plans, and treatment options are crucial in keeping those pesky insects at bay and a happy horse for another great summer to come.

— Mac Campbell, PAS
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Check out our Miner Morgan sales list!
http://whminer.org/equine-sales.html
A common misperception is that horseback riding is really expensive, says Carol Tetreault, adding that it’s true, but not more so than other activities that parents get their children involved in: hockey, dance lessons, ice skating, etc.

Carol grew up in suburban Michigan and attended Michigan State University. In 1991, Carol participated in Miner Institute’s Summer Experience in Equine Management program. Carol opened Adirondack Tack, an equine supply and clothing store in Plattsburgh, NY 15 years ago.

Like many of the students who come through one of our Summer Experience programs – Equine Management, Dairy Farm Management, or Agricultural Research – Carol did not grow up on a farm. She started riding lessons when she was 9 and got her first horse when she was 12.

Carol says that the Summer Experience program was a great experience – not only did she meet her husband, Dale, she also learned how to drive a tractor, milk a cow, drive a horse, and attended the New England Morgan Horse Show, she recalls. Although she participated in the program because of its equine focus, Carol said that she appreciated the opportunity to experience some of the dairy farm experiences as well.

Miner Institute is “a beautiful, unique facility that serves a tremendous service as a connection between higher learning institutions, research, practical application and the community,” Carol said. Her favorite Miner Morgan is HD Saranac, “Sara”, who Carol refers to as the Queen of the Barn.

Carol and Adirondack Tack have been supporters of Miner Institute’s equine program for years – hosting a fashion show as part of the annual equine seminar, EquiDay; donating prizes for equine-themed events hosted at Miner Institute and helping to promote Miner events with flyers at her store.

Operating the regions only tack store, Carol is pretty involved with the North Country’s equine community. “It’s a diverse group,” Carol said. There are many different interests and disciplines represented in the North Country, she said. Carol’s exposure to specific training methods and different disciplines during her summer internship at Miner Institute has been helpful to her in her business, she said. Although she hasn’t shown in years, she enjoys dressage and represents Adirondack Tack at most of the regional equine shows and events. Many of those events take place at the Clinton County Fairgrounds. In addition to the annual county fair, the site hosts four other horse shows every year.

— Rachel Dutil
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Learn more about Miner Institute, visit whminer.org
American Pharoah’s historic Triple Crown win was a great way to cap a gorgeous day at Miner Institute for the June 6 Belmont Stakes Party. We hosted about 75 people for the event that featured stick horse decorating for kids; an equine judging demonstration with our Miner Morgan herd; NY-themed refreshments; a barn full of friendly Miner Morgans; and of course the historic race!! Visitors bet on who would win the race for a chance to win a purse donated by Adirondack Tack. We raised more than $100 which was donated to the Forever Morgan horse rescue organization.

TRIPLE CROWN ICING ON CAKE OF BELMONT STAKES PARTY

is the major concern for mares with retained fetal membranes, so she was monitored closely as well as treated with anti-inflammatories, deep bedding, and many ice boot treatments per day. Her uterus was lavaged 2-3 times per day with multiple liters of saline solution to remove dead tissue as well as continue to try and gently loosen the remaining attached membrane. Boo was on several antibiotics some delivered intravenously, others via a rectal suppository, all with the goal of trying to keep ahead of a full-body infection. In summary, it was essentially a race between the placenta passing and her becoming toxic, with the vets supporting her vitals as best they could.

Fortunately, the placenta finally all came out, a full 4 plus days later. Boo remained as healthy as she could throughout the treatment and her feet never showed any signs of laminitis (we even x-rayed and performed a venogram on them a few weeks after at our farrier/vet clinic, but that’s for another story!). She had a few follow up uterine flushes back at Miner after her discharge from the hospital and has a clean bill of health.

Due to her age and the fact that she’s given so much to the program at Miner for so many years, we’ve retired her from official “broodmare-dom” as we’re not willing to risk her life again. She’s produced such consistently lovely and loving offspring — HD Brookdale, HD Aiden Lair, HD Troy, HD Hartland, HD Brandy Brook, and HD Bliss, that we are willing to work towards using her for embryo transfer. Our hope for the rest of the summer is to breed and flush her twice. With any luck there will be a couple more Boo foals in our future. Even if not, she’s earned our admiration and her retirement!

— Karen Lassell
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THE VITAMIN QUESTION

Should I be giving my horse a vitamin supplement? This is a question that I have heard quite a few people ask. We all know that moms-to-be take pre-natal vitamins to ensure they and their babies are getting the nutrients they need. We also know it's a really good idea to take vitamins ourselves, no matter the age, to ensure that our skin, hair, teeth, and tissues stay healthy and our bodily functions stay working as well as possible. So, let's consider the same thing with our equine counterparts.

Vitamins are compounds required by the body to carry out proper metabolic functions. While research has shown us much about specific vitamin requirements, there is probably more that we don't know; however good estimates have been made. There are many vitamins that your horse needs, but as long as he is getting adequate turnout time (about 6 to 8 hours per day), has a moderate exercise schedule, and is getting a good quality hay diet, and has a healthy Body Condition Score, he is most likely meeting his requirements. For many vitamins, toxicity (the degree to which a vitamin becomes poisonous) is rare, so a supplement is often suggested. This ensures that your horse is getting all of the vitamins it needs.

Vitamin A is responsible for the proper function of your horse’s vision, proper muscle and reproductive function, and it keeps mucous membranes healthy. Beta-carotene, found in fresh pasture and good quality hay, is the pre-cursor the body uses to make vitamin A. B vitamins are a large group and include B12, niacin, riboflavin, B1, folacin, pantothenic acid, biotin, and B6. The B’s aid the metabolism of the nutrients your horse ingests-carbohydrates, proteins, and fats- making sure your horse gets energy from the food it eats. They are primarily produced by the normal bacteria in the large intestine, but as with many vitamins, are also found in forages. Vitamin C finds and destroys free radicals, the unstable molecules in the body that can be damaging to cells. Vitamin C plays a key role in protecting cells and aids in the formation of collagen. Collagen is the main component of connective tissue in your horse’s body, and is part of the inter-vertebral discs, tendons, ligaments, skin and many other structures. Vitamin C is synthesized from glucose by the horse’s liver. Your horse needs more during times of stress, when it’s body might not be able to keep up with the demand.

One study has suggested that older horses respond better to vaccinations when supplemented with Vitamin C the day prior to the shots. Vitamin D assists with the absorption of calcium from the small intestine and it helps in the excretion of phosphorous. This is critical for bone and joint growth, health and development. Vitamin D is produced by your horse’s body when exposed to sunlight for at least 6 hours per day and it is also found in good quality hay. Keep in mind that levels of vitamin D present in hay decreases quickly as the hay ages. Vitamin E, similar to vitamin C, scavenges the body for cell damaging molecules. Furthermore, it is crucial in supporting the immune system and assists in muscle and nerve function. The best source for vitamin E is fresh pasture, and alfalfa is higher in the vitamin than any other hay source, but the levels decrease with storage. The last of the major vitamins is vitamin K. It is crucial in the proper function of the blood clotting mechanisms of your horse. As with the other vitamins it is present in hay, but is also produced by the normal bacteria in your horse’s large intestine.

Many of these vitamin requirements are met by your horse’s daily ration of hay and turnout time. However, if you find your horse is having problems with certain health aspects, a look into daily diet, and possible supplementation, might be the solution. If your mare is having fertility problems, or if your horse is not getting adequate turnout time, they may be lacking vitamin A. A decrease in the quality of your horse’s hooves may suggest a deficiency in the B vitamins. If your horse is under great stress, is under a heavy work load, or is frequently traveling, vitamin C might need to be added to its nutrition program. If your horse is a hard-working athlete, is often kept in the barn, or is a growing youngster, vitamin D might need to be supplemented to ensure proper bone growth and health. Vitamin E might need to be added to your horse’s diet for similar reasons- heavy work load, no pasture turn out, or if you have a pregnant mare, or if your horse is suffering from neurological or muscular disease. A severe prolonged intestinal disease might compromise your horse’s ability to properly maintain proper vitamin K values, or if they acquire a toxicity of a substance that blocks the proper function of the vitamin, then extra vitamin K might need to be supplemented to maintain healthy blood clotting mechanisms. Most importantly, it should be kept in high regard that these vitamins come most primarily from good quality hay. If you are unsure of the nutrient content of your hay, contact your local co-op or agriculture extension office or feed store, and they will be sure to help you get an analysis, often free of charge. After evaluating each individual horse’s lifestyle and diet, you’ll be in a better position to know if vitamin supplementation is needed for your horse’s health and wellbeing.

— Morgan Hulbert

* Guest writer, Morgan Hulbert, just graduated from Saranac Central School. Growing up on a farm with a variety of animals ranging from horses and cows to chickens and sheep has inspired her to pursue a career in veterinary medicine, possibly specializing in horses. Morgan is an active 4-H'er and enjoys learning all she can about the health and welfare of horses. If you’d like to contact Morgan about her article, Karen Lassell will be happy to put you in touch! lassell@whminer.com.
TRAILERING YOUR HORSE LONG DISTANCE

When you own a horse, sometimes trailering over long distance can be an unavoidable obstacle, especially if you plan on owning your horse for its entire life. Being well-prepared for a long distance trip can make everything go much more smoothly for both you and your horse. It is important when preparing for any trailering trip, long or short, to think of the things you might need in case of an emergency.

General supplies when trailering your horse should have all horse care needs including, but not limited to, water buckets, extra halter and lead rope, and food. You should also have general trailer and truck supplies such as a jack, good working spare tires for the truck and trailer, tire wrench, tire blocks and blocks to put under the trailer when you unhook. One of the things that we do here at Miner Institute is to have a check list of things we will pack for a long distance or long duration trailering trip and we check the supplies off as we check them on the trailer or truck to make sure we have everything. This works really well here so that everything is thought out ahead of time and is not a rushed event. We also replace anything we took or used in the trailer so that the trailer sits ready to go at any time; this helps us out in case of an emergency when we need the trailer, then we aren’t hurrying about trying to prepare the trailer.

While trailering long distance, advance planning is key so as to leave yourself time to get things together. Depending on the length of the trip, you should plan stops of about 20-30 minutes in duration and spaced out about every 3-4 hours so that your horse has time to rest its legs and doesn’t get fatigued. During these stops, the horse(s) should be offered water and possibly refill their hay nets if they are getting low. These times are variable though depending on the type of road, speed and the traffic you are traveling with. If there is a lot of stop-and-go traffic, curvy or rough roads, then longer or more frequent stops may be necessary because it is a lot of work for the horse to balance themselves back and forth quickly and frequently. You might also need to plan a stop to stay overnight if you are going very far away, which is important to have sorted out in advance of the trip.

One thing that we do for all of our horses here at Miner when trailering, is to put bell boots on all 4 feet to help protect their coronary bands. This allows the horse protection where they are most likely to get injuries while also allowing for them to not get over heated and to regulate their body temperature better than standing wraps or shipping boots may, especially in hot weather. We also bring our own water from our farm if we have a picky horse or have any suspicion that they won’t drink well or aren’t sure where we’d find water while on the road. A good way to transport water if you don’t have a tank or buckets with lids is to line a bucket with a clean trash bag, tie it closed after filling and leave it in the bucket. This gives you a good amount of water without the worry of it spilling over. A trick to help get your horse to drink is to put some Gatorade or apple juice to flavor the water to make it more appealing to the horse; it is good to practice this at home before you travel so it isn’t a surprise to the horse’s tastebuds. You can also put pieces of carrots or apple in the water to help encourage them to drink some. Once you arrive at your destination if they still don’t want to drink, then you can wet their hay and make any grain fed into a soupy mash to help get some fluids into them.

Some of the things we planned in preparing HD New York, “Odin”, for his two day journey to his new home on Martha’s Vineyard included an overnight spot for him to stay the night and we also sent along a couple of small doses of sedative drawn up in case of an emergency. Luckily, we did not need to use any of these, but it was good to be prepared. Hopefully these tips will help your next trailering adventure to be fun and stress-free for both you and your horse. Good luck and happy Trails!

— Kristen Anderson
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FEATURED MINER MORGAN:
ALJAK’S SEEING DOUBLE

For Sale or Possible Lease: Miner Institute’s lease of “Chip” is coming to an end later this summer and he’s looking for a new great place to hang out! Aljak’s Seeing Double (Aljak’s Double Whammy x Rumbrook Envision) is a handsome 14-year-old stallion that collects easily, but also has been a wonderful pasture breeder. Smallish in stature, Chip is so upright and proud that he feels like a big horse and he does produce mostly fillies, all much larger than himself and out of different mares. Sweet and kind with a pedigree of champions, Chip would be a great all-purpose herd sire for someone and he’s a lovely ride to boot! Call or email with questions about him, or come meet him for yourself!