Happy Thanksgiving Everybody,

Included is the Weekly Pile of Information for the week of November 19th, 2017 Extension's Equine related educational information & announcements for Rockingham & Guilford Counties. To have something included in the Weekly Pile, please follow these simple guidelines.

- Information included needs to be educational in nature &/or directly related to Rockingham or Guilford Counties.

- provided information is a resource to the citizens of Rockingham & Guilford Counties.

- provided information does not require extra time or effort to be listed.

- Listings for Swap Shop will not list pricing details.

- Please E-mail information to me by Wednesday each Week.

- Please keep ads or events as short as possible – with NO FORMATTING,

NO unnecessary Capitalization's and NO ATTACHED DOCUMENTS.

(If sent in that way, it may not be included)

- Please include contact information - Phone, Email and alike.

- PLEASE PUT WEEKLY PILE IN SUBJECT LINE when you send into me.

- The Weekly Pile is not for listings for Commercial type properties or products.

If I forgot to include anything in this email it was probably an oversight on my part, but please let me know!

If you have a question or ideas that you would like covered in the Weekly Pile, please let me know and I will try to include. As Always, I would like to hear your comments about the Weekly Pile or the Extension Horse Program in Rockingham or Guilford Counties!

I NEED YOUR FEEDBACK & IDEAS!

Included in The Pile this Week:

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1. Parade Protocol Recommendations for Horses

By Kentucky Horse Council

Parades are exciting. Children are delighted at all the sights, sounds, and the opportunity to do something different. Parents are lulled into peaceful reverie by the distraction the winding procession creates for their offspring. Organizers are frazzled by last-minute changes, conflicts, and inevitable problems. Participants, both human and animal, are energized and sometimes agitated by the crowd, noises, and unexpected events.

The Horse Factor

It is important to realize that parades can be very confusing for horses. The sights, sounds, and obstacles on a parade route are often unfamiliar to our equines and, to further complicate matters, we have to navigate directly in the public eye, usually on pavement, in a narrow area. Take time well in advance of participating in a parade to desensitize your horse to traffic, clapping, noises, changes in footing, balloons, flags, horns honking, loud music, and other sights and sounds associated with parades.

One of the biggest challenges for horses at some parades has been crosswalks made of bricks embedded in the pavement. People recognize that the height of the road remains unchanged even though the appearance is quite altered. Our four-footed

friends, however, cannot reason in the same manner. Thus, the brick walk could appear to be a gaping crevasse into which they might fall or it could seem to rise above the normal surface of the road, both of which can be scary for a horse.

Also, remember if you are driving your horse in a parade that crossing cobblestones, bricks, gravel, and railroad tracks isn't just about getting your horse to the other side; your vehicle has to also cross the obstacle. The resulting noise or strange vibrations of the carriage going over rough ground might cause your horse concern.

For the sake of safety, all equine parade entries should be accompanied by side walkers with at least one per every four horses and one for every carriage or hitch. The side walkers are placed between the horses and the spectators so they can intercede if a horse acts up. Side walkers should be supplied by the equine participants, not the parade management. The side walker should be a qualified horse handler, assigned to specific horses, and responsible for monitoring safety. Special attention should be given to safe tack and handling equipment.

Parade Organizers

It is vitally important that coordinators have an understanding of basic horse behavior and techniques to minimize the stress on equine participants. Event organizers should be mindful to design parade routes and organize participants so that the animals in the parade are as far as possible from the bands, fire trucks, and other noisy and quickly moving parade entrants.

The Kentucky Horse Council (KHC) guidelines for parade organizers and equine parade entries can be a starting point for successful integration of horses, riders, and drivers into parades, but are not a substitute for the exercise of reasonable care.

KHC Parade Protocol Recommendations for Horses

The following KHC guidelines are recommendations only and may not be appropriate for all events. Parade hosts must comply with all applicable government regulations, should always purchase event liability insurance, and should follow all event protocols required by their insurance carriers. We also recommend that horseback riders who participate in parades have their own personal liability insurance. The Kentucky Horse Council assumes no responsibility for injuries to horses and their handlers or injuries to spectators.

Parade Management

Organize the parade participants so that the horses and other live animals are as far as possible from marching bands, fire trucks, and other motorized, noisy, and quickly moving parade participants;

Require parade participants to sign a liability release waiver;

Block off curbs to keep viewers from sitting on the curb;

Provide crowd control to help keep viewers a good distance from parade participants;

Avoid noisy, wavy, and quickly moving items or activities near the parade route;

Do not allow candy throwing; instead, walkers can hand out candy; and

Provide parade participants with a map of the parade route that includes special note of any bridges, railroad crossings, changes in footing, or other potential hazards.

Equine Management

Require all equines to be presented in advance of the parade with proof of current negative Coggins test in accordance with state laws;

Require all participants to sign a liability waiver;

Provide equine participants with a map of the parade route and notify them of any activities or items that may be alarming to horses;

Request that only well-seasoned horses who have been desensitized to crowds, flags, traffic, whistles, and other parade noises and sights participate;

Notify equine participants of any donkeys, bovines, or other species of animals that will be near them in the parade lineup;

Recommend participants have personal liability policies that cover their participation in parades;

Only allow one rider per horse;

Require equine participants to provide muck collectors and to pick up their own manure; and

Require equine participants to provide side walkers. These should not be the same people as banner carriers and muck collectors. Recommended number of side walkers: One per every four mounted or led horses, one per every carriage or cart, and one per every two horses in a multi-horse hitch.

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2. Feeding Management of the Equine

David W. Freeman, Extension Equine Specialist

Equine digestive disorders, such as colic and laminitis, can affect any horse owner. Understanding the distinctive digestive anatomy of the horse that can lead to these disorders, however, can help horse owners to better manage their feeding program. The following explains the anatomical peculiarities of the horse's digestive tract, as well as feeding management steps horse owners can take to help prevent digestive disasters.

Often, it is the **way rations are fed rather than their composition that leads to digestive upset in horses.** Even under the best of management, several anatomical peculiarities of the horse's digestive tract predispose horses to digestive disorders such as colic and founder. Under poor feeding management, the onset of these disorders is almost assured. The objective of feeding management is to provide a ration with balanced nutrition in a manner which maximizes nutrient utilization while lessening the occurrence of digestive disorders.

Anatomical Peculiarities of the Equine Digestive Tract

The horse's digestive tract can be divided into two functional divisions: foregut and hindgut. The foregut of the horse is made up of the mouth, esophagus, stomach and small intestine. It functions similarly to the digestive tract of the pig in that it is made of a simple, one-

compartment stomach, followed by the small intestine. The hindgut of the horse is comprised of the cecum, large colon, small colon and rectum. The cecum functions much like the rumen of a cow in that it is a relatively large, fermentative vat housing microbes which aid digestion. These microbes break down nutrient sources that would otherwise be unavailable to the horse. Each part of the digestive tract has peculiarities that relate to feeding management.

Mouth

The mouth is responsible for the initial breakdown and swallowing of feedstuffs. Chewing reduces the size of large particle feedstuffs and breaks up the less digestible, outer coverings of grains and forages. Additionally, mastication stimulates salivary glands to release saliva, which assists in lubrication of feed for swallowing.

Since proper denture conformation is necessary for mastication, inspection of the horse's teeth by a qualified individual should be a routine management procedure. As horses age, dental conformation can be expected to deteriorate. Consequently, older horses require more frequent inspection and treatment of teeth. Signs of poor dental conformation include excessive loss of feed while eating, positioning the jaw or head sideways while chewing and evidence of general loss of condition and thriftiness.

Esophagus

The diameter and tone of the musculature of the esophagus make it difficult for the horse to expel gas through belching or vomiting. These are predisposing features to gastric rupture, gastric distention and colic.

Stomach

Compared to most livestock, the size of the horse's stomach is small, about 10 percent of the volume of the total digestive tract. The small size makes the rate of flow of feed material in the digestive tract through the stomach relatively fast. Gastric emptying is dependent upon volume, so large meals can be expected to pass more quickly than feed eaten continuously at low volumes. Studies have shown the majority of feed material in the digestive tract passes to the small intestine within 12 hours following a meal.

Small Intestine

The small intestine is the main site of digestion and absorption of protein, energy, vitamins and minerals. Similar to the stomach, intake level of the feed influences rate of flow of ingested matter through the small intestine. Large amounts fed in meal feedings increase rate of flow to the large intestine.

Cecum and Colon

Ingested matter not previously digested or absorbed in the small intestine flows to the cecum and colon, which make up about 50 percent of the volume of the digestive tract. The cecum and colon house bacterial, protozoal and fungal populations which function in microbial digestion of feed material in the digestive tract. Many different products of microbial digestion are absorbed by the horse.

Passage of ingested matter through the large and small colon is relatively slow. Rates of flow through the colon may take up to several days following the time feed was eaten. The diameter of different segments of the large colon varies abruptly. Additionally, the arrangement includes several flexures where the colon turns back onto itself. Anatomical arrangements such as these predispose the horse to digestive upset when nutrient flow is abnormal.

Nutrient Intake and Digestion

Water

The daily minimal requirement for water has been estimated to vary from 5 to 20 gallons. Requirements depend on factors such as environmental temperature, workload, production state and intake. Voluntary water intake can be expected to increase as the amount of ration eaten increases. Also, rations low in digestibility increase water intake. Furthermore, horses can be expected to drink more frequently when exposed to hot environmental temperatures. Horses exercising in temperate environments may have increases of 300 to 400 percent in water requirements for replacement of water that is loss in expired air and sweat. Since restriction of water intake may cause digestive upset, recommendations generally are for free choice access to clean, palatable water.

Energy

Energy is the fuel for chemical reactions which run the various systems of the body. Energy-containing compounds are part of grains, forages and many supplements. Energy is supplied in the form of starch, fiber and fat.

Starch is found mainly in grains, and as much as 55 to 85 percent of starch is absorbed in the small intestine. Starch bypassing to the hindgut is digested by microbes and absorbed as volatile fatty acids. Large amounts of starch presented to the hindgut predispose horses to colic because of gaseous products of microbial digestion and abnormal changes in gut pH and fluid balance. The amount of starch bypassing to the hindgut depends on intake level, rate of flow through the digestive tract and amount of mechanical disruption of the hard seed coats of grains. Results from nutritional studies suggest that approximately two grams starch per pound of a horse's body weight increases starch bypass to the point of causing digestive upset. Considering starch levels in typically formulated grain mixes, recommendations are to split daily grain needs to two or more daily feedings when grain levels are greater than 0.5 percent of body weight per day (example:5 to 6 pounds of grain for a 1,000-pound horse).

Hay and pasture forage are the most common sources of high-fiber feeds fed to horses. Fiber digestion is dependent on the efficiency of digestion from microbial fermentation in the cecum and colon. Compared to cattle, horses are less efficient in digesting most sources of fiber, presumably because of faster rates of passage of ingested matter. Also, fiber digestion is dependent on the maturity and type of forage. Mature, stemmy forages are inefficiently digested, whereas digestion of immature, leafy, small-stemmed sources of fiber are similar in horses and cattle. Processing hays in cubes, pellets or chop has little effect on digestibility but may be helpful for feeding to older horses with poor teeth condition.

Fat is a component of most feedstuffs. Non-supplemented grain mixes typically have minimums of 2 to 3 percent fat. Adding additional levels of fat in formulations for grain mixes has become a common practice. This supplementation increases the energy concentration of grain mixes while decreasing the amount of starch. Therefore, fat-added feeds have advantages of being more concentrated in energy and safer because of containing less starch as a total part of the energy-containing compounds.

Protein

Proteins supply amino acids. Amino acids are used in a variety of body processes, largely for developing and maintaining lean body tissue. Amino acids are absorbed intact in the small intestine, while protein in the hindgut is absorbed primarily as ammonia. Some of the essential amino acids must be absorbed intact because the horse's body cannot synthesize them. Thus, increasing the efficiency of protein digestion in the foregut is desirable. Total tract and prececal digestibility vary with protein source and protein concentration in the diet. Total tract protein digestibility of feeds typically ranges from 40 to 70 percent. As much as 75 percent of protein in soybean meal is digested in the foregut, whereas estimates for prececal forage digestibility range from near zero to 20 percent. Slowing the passage of protein by splitting daily needs into two or three feedings per day will increase amino acid absorption in growing horses.

Minerals and Vitamins

Mineral and vitamin imbalances, deficiencies and toxicity can cause a multitude of health disorders in the horse. In many cases, recommendations are based on limited research or requirements and have not been established because of absence of research.

Calcium and phosphorus are the two minerals which have received the most research attention. Horses require more calcium than phosphorus and are susceptible to skeletal system disorders when fed less calcium than phosphorus. Additional minerals receiving considerable attention in recent research include copper and zinc, also because of implications related to skeletal growth disorders.

Research information on vitamin requirements is largely absent in equine nutrition. Fresh forage is a major source of vitamins, and most needs are considered met when horses have access to quality hay or pasture. Vitamin A is the most commonly supplemented vitamin in rations, partially because of the large needs for production and growth. Vitamin D is also routinely added, especially to horses who do not receive fresh forage. The needs for vitamin D are less than for vitamin A, and recommended upper levels of safe intake are much lower.

Requirements of the other fat-soluble vitamins, E and K, are less clear, and clinical deficiencies and toxicity are not as commonly observed. Sources of vitamin E are routinely added to equine diets to guard against deficiencies which cause myodegeneration, or breakdown of muscle. Vitamin K requirements are presumed to be met by synthesis of vitamin K sources by microbes in the cecum and colon. Requirements for B vitamins are largely unknown. B vitamins are assimilated by microbes in the horse's cecum and colon, and these sources are assumed to meet the needs of most horses. However, B vitamin supplements are routinely added to diets of exercising horses because of the role of B vitamins as catalysts for energetic pathways.

Feeding Management Implications

Water

As discussed previously, water intake is important for maintenance of normal body processes. Restrictions in water, such as that caused by voluntary reductions in response to abrupt decreases in environmental temperature or changes in water source, may cause an increase in the incidence of colic. Water intake should be monitored because of numerous health problems associated with dehydration. Monitoring water intake requires frequent inspection of water sources, including the function of automatic waterers. In general, horses should be allowed free access to fresh, palatable water. Some horses may drink so much as to cause digestive upset if given free access immediately prior to performing and recovering from intense exercise, and it is recommended that water should be provided in smaller amounts at frequent intervals during these times. Regardless, dehydration can be a serious problem in exercising horses. Therefore, it is important that water is offered frequently and that intake is monitored.

The Need for Long-Stem Forage

Rations for horses should be forage based. Generally, horses should have access to pastures, hays or coarsely processed forage at minimal levels of 0.75 percent of body weight per day. Among other benefits, incorporating long-stem forage into rations increases particle size of ingested matter, thus slowing rate of passage. It also increases dry matter intake, thus stimulating water intake. Additionally, incorporating long-stem forage reduces the frequency of behavioral problems such as tail chewing, wood chewing and feeding on excrement. Grain mixes should be formulated to balance and add to the value of forages. High quality forages are more concentrated in nutrients and more efficiently digested; thus, lower levels of grain supplementation are necessary. Feeding forages containing weeds, insects, large amounts of indigestible fiber or foreign material will predispose the horse to digestive upset.

Meeting Requirements with Balanced Rations

Nutrient balances are important for all diets. However, horses in production, growth or performing high levels of athletic competition or work are most likely to develop observable disorders from ingesting an imbalanced ration. A feeding management plan requires knowledge of requirements, an ability to formulate rations and knowledge of utilization of different feedstuffs.

Growing horses, exercising horses, gestating and lactating mares and stallions during breeding programs require more nutrients than horses at maintenance. Feeding management plans should consider these differences, and farm facilities should separate horses into different production classes. The feeding management plan should also consider the number of different classes of horses, the ability to correctly add supplements on-farm, the ability to feed different numbers, as well as types of rations, feeding costs and the availability of different feedstuffs.

Meeting requirements also requires knowledge of nutrient content of grains, forages and supplements. Rations have successfully incorporated many different combinations of fresh forage, hays, grains and supplements. However, feedstuffs contain different levels of energy, protein, minerals and vitamins. Knowing the expected nutrient profiles of selected feedstuffs will direct supplementation to meet needs without causing deleterious effects on performance or health.

Estimates of the nutrient content of feedstuffs can be obtained from feed tags on grain mixes, feedstuff tables in animal nutrition texts, professional nutritionists or chemical analyses. Because of the variability in forages, farms using significant amounts of hay from a single source should have hay sources routinely tested for protein, fiber and minerals.

Maintaining a Nutrient Balance in Rations

Feedstuffs contain differing levels of nutrients. Grains are relatively higher in energy than forages, some byproduct feeds contain high levels of protein, and mineral and vitamin levels can be expected to vary greatly between different feed sources. Because of these differences, changing sources or amounts of feedstuffs will alter the nutrient balance in rations. Commercially formulated grain mixes are routinely supplemented with nutrients, so the different ratios of grain and hay and different hays that horses are fed will not adversely alter the nutrient profile of the total ration.

Some feeding managers are equipped to properly supplement rations by on-farm addition of ration ingredients, whereas others routinely make uninformed decisions to add many different types of nutrients to the base rations. The unknowledgeable addition of ingredients can easily cause numerous irreversible health problems in all classes of horses. Two problems frequently observed with improper ration adjustments are supplementation without knowledge of need or level of intake before supplementation, and supplementing for one ingredient without recognizing the additional amount of other ingredients a supplement may contain.

Additionally, horses should not be expected to self-regulate their need for most nutrients. This is evidenced by horses over consuming energy to the point of digestive upset. In addition, horses do not regulate most of their mineral needs under free-choice management. Additional needs for minerals should be met as part of a formulated ration at regulated intakes. The exception to this rule is the free choice offering of salt, or sodium chloride. It is generally recommended that all classes of horses be provided salt, either plain or trace-mineralized, in block form with the constraint that free-choice, palatable water is available at all times.

Feeding to Desired Body Condition

Horses in a positive energy balance will store energy as fat, and body fat is reduced when the ration does not provide sufficient nutrients to maintain energy balance. Accurately assessing the fat cover allows for visual appraisal of the energy status of a horse. In general, most horses should be fed a balanced ration at levels which produce a moderate to fleshy body condition, thus avoiding an extremely thin or obese condition. Because horses in similar production and weight classes will vary in their nutrient needs, routine assessment of body condition of each horse is necessary. While horses in similar production and weight classes are commonly grouped together, those individuals with abnormally high or low body condition may need to be separated further to meet individual needs.

Assessing Energy Sources, Levels and Utilization in Feeds

Voluntary intake in horses appears to be influenced by a number of factors: weather, palatability of feed, interaction with other horses, and energy intake, among others. Regardless, if allowed free access, most horses will consume enough grain to cause digestive upset. As discussed previously, the most common problem with overeating is the consumption of too much starch in a single feeding. Grains vary in the amount of starch. For example, corn has more starch per pound than oats. Also, there may be differences in foregut digestibility of starch between different grains. Depending on intake, more starch in oats may be digested prececally than corn.

The Value of Processing Feeds

Processing increases digestibility of hard seed-coat grains and assists in intake of ingredients with different particle sizes in a mix. Feeding finely processed rations such as ground mixes is not recommended because it may decrease palatability, increase dust, increase incidence of gastric upset and increase the rate of flow of nutrients through the digestive tract.

Pelleting, micronizing, flaking, rolling, cracking, wafering and extruding are examples of processing methods that are acceptable. Several different pellet sizes have been successfully fed to horses, most ranging from 0.2 to 0.75 inches in diameter. Often, forages are recommended to be fed loose so behavioral abnormalities resulting from boredom are reduced. However, cubed (1 1/4 inch in diameter) hay can be fed as the sole source of forage with no reported incidence of behavior abnormalities.

Processing can cause several differences in rate of intake and utilization of nutrients. Completely pelleted rations are consumed faster than textured grains. Extruded feeds are consumed more slowly than pelleted or textured grain mixes. Texture and hardness of grains will determine the value of processing. Small seed grains with hard seed coats, such as milo and wheat, should be processed to increase utilization of nutrients. The benefit of processing softer seed-coated grains, such as oats, is much less. Also, the value of processing grains can differ between horses. Horses with poor denture conformation, such as older horses, may benefit more from processed feeds than others. Also, the value of processing is increased when feeding large quantities of grain to horses with limited capacity, such as rations fed growing horses to obtain maximum gain.

Total rations may be mixed, ground, and processed by pelleting or extrusion to make a complete feed. Complete feeds have several advantages, most related to ease and convenience of feeding. However, it is most commonly recommended to provide at least 0.75 pounds per 100 pounds of body weight in long-stem forage to supplement these complete feeds to guard against tail chewing, coprophagy and gastrointestinal problems.

Feeding by Weight of Ration Instead of Volume

Feeding by weight will decrease the chance of overfeeding due to differences in weight per volume of different feeds and different processing methods. For example, corn weighs more per volume than oats, and pelleted feeds weigh more per volume than textured feeds. Consequently, it is recommended to weigh feed periodically to insure accurate monitoring of intake. This is especially important when changing feed sources. One of the most common causes of digestive upset is overfeeding energy in a single feeding because differences in weight of grain mixes were not taken into account.

Feeding Frequency

In many ways, the horse's digestive physiology is best suited for a continuous, low-level supply of feed. However, for management, housing and production needs, most horses are meal-fed. Meal-feeding large amounts of starch increases starch bypass into the cecum and colon. As discussed previously, large amounts of starch presented to the hindgut increases the frequency of digestive upset. Therefore, it is recommended to split grain into two daily feedings when the daily amount of grain exceeds 0.5 percent body weight (5 pounds grain per 1,000-pound horse). Those feeding grain to horses at levels of or above 1 percent of body weight per day should consider splitting amounts into three portions per day. Meal feedings should be separated as much as possible -- that is,10 to 12 hours between a.m. and p.m. feedings for two daily meals.

Reducing Rate of Intake

Reducing rate of feed intake may be desirable if horses bolt their feed, resulting in choking or digestive upset, or if reducing rate of intake decreases competition in group-fed horses. When horses are fed in individual feeders, methods used to slow feed intake in abnormally fast eating horses have included spreading grain out in shallow troughs, placing several large stones in the feed trough, requiring the horse to eat around them or using spaced bars or feeding rings to limit access to the feed trough. As discussed previously, processing of the ration also influences the rate of intake. While the fiber content or size of pellet does not seem to affect rate of intake, increasing pellet density, or hardness, has been shown to slow intake of a pelleted grain mix.

Group versus Individual Feeding

In groups, horses tend to do what other horses do. One horse eating encourages others to eat. Similarly, appetite can be stimulated in individually housed horses by allowing a horse to observe other horses eating.

Competition among horses in group-fed situations may allow some horses to consume more feed than needed while others are not allowed access to adequate amounts. To reduce competition among horses, group-housed horses should be fed grain in individual feeders that are spread out over a large area, that is, 50 feet between feeders. Additionally, slowing the rate of intake of grain by reducing the desire to eat may reduce competition. Supplementing pastures with free choice hay in times of limited forage production may slow rate of intake of grain because horses may not be as hungry at meal time.

However, even under the best management, horses low on the herd pecking order or stressed because of conditions such as old age or lameness will need to be housed separately to reduce competition.

The Need to Make Gradual Changes in Rations

Grains and hay differ in nutrient content. Changes in the intake level and the physical form of rations should be done gradually over several days to weeks. This practice allows the digestive tract time to adapt to different levels and physical forms of nutrients and is especially important when feeding energy-dense rations. As such, grain amounts should be increased incrementally when changes in management require an immediate need for more energy. For example, increase grain one-half pound every two to three days until energy balance is met. For similar reasons, introduce horses to pastures with large amounts of lush forages by limiting access for several days.

Incorporating the Feeding Management Plan with Total Farm Management

The source, ingredient mix and number of rations will depend on numerous management practices that interrelate with the feeding program. The need to transport to events, timing of exercise schedules, labor constraints and costs are significant management factors which affect feeding management. Deworming, vaccination schedules, ectoparasite control and general hygiene are examples of health practices that relate the nutritional plans and the well-being of the horse.

Effective management also involves treating each horse as an individual. As such, effective management requires an accurate, quantitative record-keeping system that allows for individual assessment of each horse.

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3. Pneumonia in the Adult Horse

Alexandra Moss, BVSc, University of Minnesota

Pneumonia is an infection in the lungs which can be the result of numerous causes, including: bacterial, viral, fungal, and aspiration. Foals develop pneumonia more commonly than adult horses, as they are more susceptible to bacterial infections and are at a higher risk for developing aspiration pneumonia. However, adult horses can still be affected with pneumonia. Pneumonia is most often seen in older horses that have predisposing factors, such as a pre-exiting illnesses or a history of transport.

The most common type of respiratory infection in horses is viral. Most frequently they may contract equine herpesvirus infection, equine influenza, and equine viral arteritis. Viral respiratory infections have clinical signs such as fever, clear nasal discharge, swelling of the lymph nodes in the throat area, poor appetite, and a cough. It is important to understand, however, that viral infections seldom cause pneumonia on their own. A virus can primarily contribute to the development of pneumonia by causing the respiratory system to become vulnerable to a secondary bacterial infection.

Secondary bacterial respiratory infections are most frequently caused by bacteria that live in the upper respiratory tract of the horse. When a secondary bacterial infection develops, the symptoms of the horse can include yellow/cream nasal discharge, depression, and persistent fever, in addition to the previously mentioned viral symptoms. These secondary infections do not always result in pneumonia, but can when they are more severe. Shipping pleuropneumonia can occur when horses are put under stress of transport and mixed with new horses. This can be a severe condition when both the lungs and the surrounding (pleural) cavity become affected. Therefore, in addition to other signs seen with pneumonia, in cases of shipping pleuropneumonia the horse may stand with their elbows camped out, lie down more often, or be reluctant to move. Pneumonia can also develop secondary to inflammatory airway diseases, such as equine asthma.

Pneumonia is not typically contagious between horses because of the necessity of an underlying condition that makes the respiratory system vulnerable. However, it is possible to end up with multiple horses with pneumonia if a group has been exposed to a virus, as most viruses are highly contagious. Therefore, the most important considerations in preventing pneumonia are good management, including:

- **Minimizing stress, particularly when mingling with other horses or transporting horses over long distances. This can be achieved by breaking up long trips, maintaining good biosecurity when away from home, and keeping to a regular routine.**
- **Checking with your veterinarian if pre-existing conditions may make your horse vulnerable to pneumonia. Examples include Cushing's disease, Equine Metabolic Syndrome, and Inflammatory Airway Disease.**
- **Maintaining adequate management of other illnesses if previously diagnosed.**
- **Staying up to date on a comprehensive vaccination program, to protect against common respiratory pathogens.**
- **Being aware of the possible signs of pneumonia, including yellow/ cream nasal discharge, depression, and persistent fever.**

Diagnosis of pneumonia, and determining the exact cause, requires a thorough work-up to allow for the most appropriate therapy to be implemented. Diagnostic tests can include:

- **Blood work (CBC and biochemistry panels): determine the severity of systemic illness.**
- **Thoracic ultrasound: visually assess the extent of damage on the lung surface.**
- **Transtracheal wash: collect a sterile fluid sample from the lungs which can be submitted for culture and sensitivity.**
- **Culture and sensitivity: determine the exact pathogen responsible for the pneumonia, and it's sensitivity to different types of antibiotics**

Treatment of mild to moderate cases of pneumonia can be successful, and typically includes antibiotics, anti-inflammatories, and supportive care. But in more severe cases, treatment can be challenging as permanent damage can be done to the lung tissue. The long-term performance of the horse may be affected depending on how much of the lung tissue is permanently affected. Overall, early recognition and appropriate treatment are keys to a successful outcome in cases of pneumonia.

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4. You Asked: When to Geld a Colt? I was told that gelding a young colt too soon can stunt his growth. Is this true? At what age should he be gelded? Both testicles are down and this colt is getting very ornery so we'd like to geld him...

A colt can be castrated at any age as long as both testicles are descended into the scrotum. The testicles are usually in the scrotum at birth; however, it is not unusual for one or both to remain in the body cavity until ten months of age. Occasionally the testicles are not completely descended until the twelfth month of age. Many farms will castrate during either the winter or spring months prior to the colt's first year of age. Insects are less of a problem at this time of year, and cooler weather should help prevent swelling.

Testosterone produced by the testicles goes to produce muscle mass only in certain areas and produces more of a cresty neck. The horse's skeletal maturity is not determined by the testosterone production. Usually colts will be castrated around weaning, this could be anywhere from 4 to 6 months. Some veterinarians feel that the younger they are the easier they heal. You didn't mention your colts age, however, if they testicles are descended already I would say you are safe to castrate him, but let your Vet make that call!

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5. ProElite Equine Feed Launch Meeting & Equine Nutrition Program December 7th.

Southern States Presents - ProElite Equine Feed Launch Meeting and Equine Nutrition Talk.

Dec 7th at 6:30 at the Guilford Extension office

3309 Burlington Rd, Greensboro NC 27405

Catered Dinner

Please RSVP by Dec 4th to either the

Reidsville Location 336-349-7074

or Summerfield Location 336-644-7640

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6. Research Update: Calming Effects on Horses

Summarized by: Krishona Martinson, PhD, University of Minnesota

Adapted horses have been found to have a calming effect on other horses in fear-eliciting situations. In practice, experienced horses are often used as companions when young horses are introduced to potentially frightening situations (i.e. loading onto a trailer). However, studies of social transmission of adapted in horses are scarce.

This study, conducted in Denmark, investigated if demonstration by an experienced horse influenced the willingness of young Icelandic horses to cross a novel surface. Young horses were allowed to observe the experienced horse being led five times across a novel surface. Immediately afterwards, the young horses were given the opportunity to cross the novel surface themselves to obtain food on the other side. Controls were allowed to observe the experienced horse eating on the opposite side of the novel surface but not when the experienced horse crossed the novel surface.

All young horses succeeded in the task, but horses who observed the experienced horses crossing the novel surface had significantly lower average and maximum heart rate compared to controls. This result suggests a calming effect of the demonstration, which could be implemented when training young horses in fear-eliciting situations. For more information on this study, go to: http://www.appliedanimalbehaviour.com/article/S0168-1591(15)00211-7/abstract

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7. The Horse Hoof

Basic Equine Hoof Care

https://www.clemson.edu/extension/publications/lf12-equine-hoof-care.pdf

Evaluation of Equine Hoof Care

https://www.clemson.edu/extension/scaged/scffa/career-development-events/files/horse-evaluation/evaluation-of-equine-hoof-care.pdf

Hoof Care

https://www.extension.umn.edu/agriculture/horse/care/hoof-care/

Shoeing for Performance Performance

http://animalscience2.ucdavis.edu/ans149/Lectures/Shoeing%20Categories.pdf

Winter Time Hoof and Mouth Care for Horses

http://livestocktrail.illinois.edu/uploads/horsenet/papers/winter%20hoof%20care.pdf

FARRIER TOOLS AND EQUIPMENT

https://extension.tennessee.edu/Williamson/Documents/Horse/2013/Farrier%20Tools.pdf

Horse Hoof Trimming Principles

https://www.youtube.com/watch?v=x_8uYkDxcsY

Hoof Anatomy, Care and Management in Livestock

https://www.extension.purdue.edu/extmedia/id/id-321-w.pdf

Horse Hoof And Leg Anatomy: A Guided Tour

http://extension.oregonstate.edu/deschutes/sites/default/files/horse_hoof_and_leg_anatomy.pdf

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8. Taking the Lead

http://www.horsechannel.com/horse-training/taking-the-lead.aspx

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9. NCSU Equine Grazing and Pasture Management School 12/2/17

Presented by NC Forage and Grasslands Council,

NC Horse Council, Amazing Grazing and NC State Extension

Saturday 2 December 2017

8:30 AM to 5 PM

NCSU Beef Educational Unit

3720 Lake Wheeler Rd Raleigh NC 27603

Registration Now Open

Registration $20

Online registration/payment

https://www.nccattle.com/nc-forage-grasslands-council/events/equine-grazingworkshop-registration

For questions: pdsicili@ncsu.edu or jrroger3@ncsu.edu

Topics

- Learn to improve horse health through sound grazing management
- Learn the latest principles and practices of pasture management/renovation
- **Live demonstrations and multiple opportunities for hands-on training One-half day of lecture + one-half day of hands-on-training**

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10. Regional Sheep & Goat Producer Training

Saturday, January 20, 2018

Location: Guilford County Extension Office, 3309 Burlington Road, Greensboro NC 27405

Please register online by January 8

Pre-Registration is $15/person (Non-refundable).

Registration at the door is $20/person. Please make check payable to Randolph County Cooperative Extension, and mail check to 1003 S. Fayetteville St., Asheboro, NC 27203, postmarked by January 8.

Agenda

8:30 a.m.	Registration
9:00 a.m.	Opening Session - Predator Control - *NC Wildlife*
9:45 a.m.	Break
10:00 a.m.	Concurrent Sessions:
	Session 1A: Purchasing Practices - *Joe Hampton*
	Session 1B: Animal Soundness - *Dr. Jesi Leonard*
	Session 1C: Artificial Insemination Part 1 - *Dr. William Farmer*
11:00 a.m.	Break
11:15 a.m.	Concurrent Sessions:
	Session 2A: Hoof Health - *Sara Beth Routh & Lauren Langley*
	Session 2B: Biosecurity - *Dr. Jesi Leonard*
	Session 2C: Artificial Insemination Part 2 - *Dr. William Farmer*
12:15 p.m.	Lunch
1:00 p.m.	Closing Session - Producer Panel Discussion - *Problems Faced & Conquered in Small Ruminant Production*
2:00 p.m.	Wrap-up & Evaluation

https://meatgoats.ces.ncsu.edu/wp-content/uploads/2017/11/FINAL-Sheep-and-Goat-Training-Flyer-2018-1.pdf?fwd=no

Register by January 8 at:

http://go.ncsu.edu/2018goatsheeptraining

Questions? Please Call: 336-342-8235

For Inclement Weather Status: 1-800-666-3625

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11. Scholarships Available for Veterans to Attend SSAWG Conference

Limited scholarships are available for military veterans who would like to attend Southern Sustainable Agriculture Working Group's (SAWG) annual *Practical Tools and Solutions for Sustaining Family Farms Conference*.

Southern SAWG will host the 2018 conference January 17 through January 20 in Chattanooga, TN. This popular event focuses on practical tools and solutions to build the necessary bridges between farmers, marketers, agriculture professionals, and local-food system advocates.

The University of Arkansas and the National Center for Appropriate Technology (NCAT) are partnering to offer the veteran scholarships. Fifteen partial scholarships, which will cover the cost of general conference registration, will be awarded. Five full scholarships are also available, which will cover the cost of conference registration, short course and field trip attendance, and lodging at the conference hotel. Applicants interested in being considered for the full scholarships must agree to participate in a 20 minute interview, conducted by NCAT and University of Arkansas staff, about their farming operations.

The deadline to apply for the scholarships is **December 8, 2017**. The application is available here. Selection priority will be given to veterans in the Southeast who have been farming less than 10 years, but all veterans are welcome to apply. Applicants will be notified no later than December 13 about the status of their scholarship application.

For more information on the scholarships, contact Margo Hale at margoh@ncat.org.

To learn more about the conference, visit the website at:

http://www.ssawg.org/january-2018-conference/

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12. HAY DIRECTORY

A Hay Directory is maintained by the North Carolina Cooperative Extension Service for the Rockingham County & Guilford County area. This directory is intended as a service to both hay producers and buyers in the area. If you are in need of hay or would like to be added (or removed) from this list please call me at 1-800-666-3625 or 342-8235 and let me know your name, address & phone #, type of hay, number of bales, (square or round bales) and weight per bale. MANAGE YOUR PASTURES & If you have hay to sell, hay is in short supply, especially quality hay, so please let me know & I will put you on the list!

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13. Swap Shop

Nothing to List This week

Send them in to post In next Pile

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14. Take A Load Off

A Woman & Her New Nightgown

Looking in the mall for a cotton nightgown, I tried my luck in a store known for its hot lingerie. To my delight, however, I found just what I was looking for. Waiting in the line to pay, I noticed a young woman behind me holding the same nightgown. This confirmed what I suspected all along: despite being over 50, I still have a very "with it" attitude.

"I see we have the same taste," I said proudly to the 20- something behind me.

"Yes," she replied. "I'm getting this for my grandmother."

Cattle Buyer Joke of the Week:

Bart decided that since he was a cattle buyer, wore boots and a Stetson all the time, he should own a horse. He heard about an old Mexican man who had a horse for sale and gave him a call. The old man said the horse was 4 years old, well broken, gentle enough for his grandchildren to ride, and he wanted $250 for him.

Suspiciously, Bart said, "$250 isn't much for that kind of horse. What's wrong with him?" The old man said, "He don't look so good."

Because the price was right, Bart decided to go over and take a look at the horse. The old Mexican man took him out to the corral and there was a teenage granddaughter leading a good-looking bay gelding with a piece of baler twine and 3 little kids bouncing around on his back. Bart had seen enough -- He slapped leather, peeled off $250 in cash before the old man could raise the price, and included $20 extra for delivery.

The next morning, the gelding was in his corral. He went out, saddled him up, and rode down to the creek -- Where the bay immediately walked off the creek bank. As they fell 5 feet into the water, Bart bailed off and watched in dismay as the horse got up, ran down the creek until he bounced off a big boulder, took a left and hit a tree dead-on and then stood there, shaking.

Even Bart could figure out that the horse was blind. Infuriated, wet, and covered with mud, he limped home leading the horse, unsaddled him, went to the house and immediately called the old man. "Why didn't you tell me the horse was blind?" he demanded.

The old man said, "I did, Senor. I told you he don't look so good."

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I *always* need more "Help" with Clean jokes!

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I always want to know what you think of the Weekly Pile, good or bad,

Especially if it has had ANY IMPACT on you. Let me hear from you!

PLEASE SEND TO ME YOUR IDEAS FOR ARTICLES IN FUTURE NEWSLETTERS!

I WANT TO HEAR FROM YOU!!!!!

Have A GREAT SAFE Thanksgiving & Weekend!

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In Rockingham County - Will Strader, County Extension Director, at (336) 342-8230 or by email at william_strader@ncsu.edu or In Guilford County – Karen Neill, County Extension Director, at (336)641-2400 or by email at karen_neill@ncsu.edu

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Ben Chase

Rockingham and Guilford County Extension Agent

Agriculture & Livestock

North Carolina State University

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http://rockingham.ces.ncsu.edu/index.php?page=animalagriculture