Hello FOLKS,

Included is the Weekly Pile of Information for the week of June 4th 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:

1. Your Help Is Needed…PLEASE!

2. Research

3. HAY STORAGE

4. You Asked

5. Help Your Horse Handle Heat Stress

6. Natural Overseeding Theory for Pastures or Hay Fields

7. Finding a Farrier

8. Reminders

9. Fertilizing & Horses
1. Your Help Is Needed

It is the time of year that I am in need of your help and would greatly appreciate your assistance. DUE TO YOUR INVOLVEMENT IN THE LIVESTOCK EXTENSION PROGRAM IN ROCKINGHAM OR GUILFORD COUNTIES (through extension programs you have participated, Extension newsletters - like the Weekly Pile - you have received, or calls or farm visits and other) THAT YOU HAVE GAINED KNOWLEDGE AND THEN UTILIZED THAT KNOWLEDGE IN MANAGEMENT, OR THAT YOU CHANGED A PRACTICE THROUGH THE KNOWLEDGE GAINED FROM YOUR EXTENSION INVOLVEMENT.
What extension administration wants to see (from agents like me) is the ultimate impacts from this Extension program - Socially, Economically or Environmentally.

PLEASE SEND ME ANYTHING IF THIS PROGRAM HAS HAD AN IMPACT ON YOU! (SUCH AS WRITTEN IMPACTS, TESTIMONIALS &/OR PHOTOS).

PLEASE DONT ASSUME THAT EVERYONE ELSE IS SENDING SOMETHING TO ME. I DO NOT GET A LOT OF FEEDBACK.

YOUR FEEDBACK HELPS JUSTIFY LIVESTOCK PROGRAMS TO THE LOCAL GOVERNMENT AS WELL AND THE IMPORTANCE OF THE LIVESTOCK INDUSTRY IN NC.

IT MAKES A BIGGER IMPACT WHEN IT COMES FROM YOU! (Especially $$ Impacts)

Please send me feedback as soon as you can!

THANK YOU FOR YOUR ASSISTANCE.
2. Research

Magnetic Blankets

Summarized by: Krishona Martinson, PhD, University of Minnesota

Static magnetic blankets often claim to increase blood flow, reduce muscle tension and tenderness, and be beneficial in both prevention and treatment of musculoskeletal injuries in horses. However, there are no studies that confirm the beneficial effects of magnets on muscles of the back in healthy horses.

Research in Sweden set out to investigate whether static magnets sewn into a blanket affect back muscle blood flow, skin temperature, mechanical nociceptive threshold and behavior in healthy horses.

Ten healthy adult horses were evaluated for blood flow by photoplethysmography, skin temperature by use of thermistors in conjunction with digital infrared thermography, and mechanical nociceptive threshold by algometry. Horse behavior was filmed during the procedure and scored on an ethogram. Measurements were performed repeatedly for 30 minutes to establish a baseline. Thereafter, a blanket with active, static magnets (900 gauss) or placebo magnets was placed on the horse and measurements were performed for a 60 minute treatment period and a 30 minute post treatment period.

Blood flow in muscle, skin temperatures, mechanical nociceptive thresholds and behavioral traits did not differ between active and placebo magnetic blankets. Skin temperature increased similarly during both active and placebo blanket treatment.

In healthy horses, magnetic blankets did not induce additional effects on muscle blood flow, skin temperature, mechanical nociceptive threshold and behavior when compared with nonmagnetic blankets.

Equine Shade Preference

Summarized by Shanna Privatsky, University of Minnesota

Provision of shade is recommended by best practice guidelines for horses living in hot, sunny environments despite a lack of research focused on potential benefits of shade for horses. A previous study showed that horses with no access to shade showed greater rectal temperature, respiration rate, and exhibited more sweat than horses that were completely shaded. Yet, this apparent benefit is dependent on horses choosing to stand under the shade provided. The objective for the study, carried out by researchers at the
University of California Davis, was to assess horse preference for shaded and unshaded areas in hot, sunny, summer weather.

Twelve healthy, adult horses were used in three different trials, with four horses being used in each trial. The trials consisted of two days of acclimation and 5 to 7 days of observation. Horses were housed individually in dry lots. The southern half of each pen was covered by an open-sided shade structure. The amount of the pen shaded varied throughout the day with an average of 51% of the pen shaded throughout the day. Rectal temperature, respiration rate, skin temperature and sweat score were measured once in the morning, afternoon and evening each day. The horses’ behavior was also observed and recorded. The behaviors recorded were horses’ location relative to shade, and time spent walking, foraging and standing. Horses were considered to be “in shade” if at least two hooves were shaded by the shade structure.

Results showed that more horses were located in the shade and performed more walking and foraging behavior in the shaded area. In addition, horses spent more time at night beneath the shade structure than in the uncovered area. These results indicate that individually-housed horses do prefer to utilize shade when it is available in hot, sunny environments. These results support recommendations for access to shade when developing best management practice guidelines for horses.

3. HAY STORAGE

Hay harvest is in full swing and hopefully. You might get some of your hay made without rain damage but will it stay that way? We worry alot about rain damage before we get hay put up, don't we? Isn't it kind of funny, then, that we store that hay outside with little protection? The fact is that most rain damage on our hay occurs after the hay has been put up! Recent research out of Nebraska that I was looking at showed that hay stored outside lost over ten percent of its total weight between summer haying and winter feeding.

And it gets worse with hay carried over a second year. One-fourth of the hay weight can be lost after a year and a half of outside storage.

Maybe worse still, the protein and TDN concentration in the hay that remains also is much lower. Over 40 percent of the protein and over one-third of the TDN that was originally in the hay when it was put up was no longer available for livestock when that hay was fed a year and a half later.

What does this mean? Well, it means that protecting your hay, especially your better quality hay, from weather damage during storage will save you feed and money. Tarps, plastic, and even sheds will pay for themselves in just a few years by saving hay and nutrients.

If uncovered storage is your only option, place bales and stacks on an elevated site with good drainage so moisture doesn't soak up from the bottom. Don't stack round bales or line them up with the twine sides
touching – rain will collect where they touch and soak into the bale. Also, allow space for air to circulate and dry hay after rain.

Pencil it out for yourself. Once you see how much tonnage and how many pounds of protein and TDN you lose each year, I think you'll be looking for ways to cut your storage losses as well.

Storage Concerns
So, the most important part of hay storage is to protect hay bales from moisture. The amount of moisture from the soil absorbed into hay bales can be decreased by storing bales off of the ground on wooden pallets, telephone poles, or cross ties. Gravel or rock pads can be put down in areas where bales will be stored outside on the ground. The goal is to avoid having the bales in direct contact with the soil but allowing some air flow under the hay is also desirable.

Storage barns or shelters are most ideal for protecting bales from the weather but hay that must be stored outside can be protected from moisture by covering it with tarps or plastic covers. Direct contact with the soil should still be avoided so rock pads or wood pallets are still useful in these situations.

Feeding Losses
Feeding losses of up to 60 percent have been observed in feeding trials where no attempts were made to reduce the losses. Simple changes in management can save a great deal of money by reducing the amount of hay lost during feeding. These losses occur when the hay is trampled, urinated or defecated upon, weathered, or refused by the animals. It's important to consider the location where hay is normally fed. Low lying areas that may remain wet should be avoided as well as bare areas that could become muddy. It is best if feeding areas are moved to different areas around the pasture. This is because feeding areas tend to become muddy and have compacted soil in the areas where animals linger around the hay. If the feeding area remains in the same area, gravel can be used to fill the area and provide a solid foundation for feeding.

Always use a round bale feeder to keep animals from lying on or trampling the hay and to keep the bales from sitting directly on the ground. Shelters can also be useful to protect bales from rainfall but the more important management consideration would be to protect the bale from soil contact.

Round Hay Bale Storage
http://extension.psu.edu/publications/i-112

Round Bale Hay Storage

Big Bale Storage Losses; how different options stack up
http://fyi.uwex.edu/forage/big-bale-storage-losses-how-different-options-stack-up/
Horses sweat to regulate body heat. Hot weather can limit a horse’s ability to dissipate heat from the body. In some cases, temperature with the combination of humidity can make the evaporative cooling effect of sweating less efficient. A horse may experience
heat stress when internal heat continues to rise once the sweating mechanism can no longer keep up with getting rid of body heat.

Heat stress usually develops from overexertion leading to overheating. Hot weather is not the only reason a horse may be susceptible to heat stress. Riding a horse beyond its level of conditioning also produces excess body heat. Therefore, it becomes the responsibility of the horse’s caretaker to know how well conditioned the horse is and the caretaker’s proficiency at interpreting distress in the horse when managing horses during periods of hot weather and/or exercise.

It is important to realize that cooling down an overheated horse too rapidly can shock the horses system.

**To cool a horse down safely, especially if overheated, without shocking its system?** Walking and natural cooling works best to dissipate heat from muscles. Cool water application – soaking the neck, chest and legs will create the same effect as sweating to dissipate internal body heat. You will not shock its system using cold/ice water to cool out a horse. Cool the horse down with ice water sponges, scrape off and reapplying again. Apply Ice sponge’s s to the neck, inside the legs, under the abdomen, any any area with thin skin and lots of capillaries.

Avoid applying water to large muscles in the back and hindquarters of an overheated horse to prevent the horse from tying-up.

When cooling a hot horse after exercise, many people simply spray the horse all over with water and do not scrape away the excess. Does it really offer a benefit to spray the entire body as opposed to just the legs and belly? Spraying water on a hot horse to cool it off promotes convection cooling and assists the horse in lowering its core temperature. The reason you spray the legs and belly is because the blood vessels are closer to the skin in those locations, and it promotes faster cooling of the horse's core temperature by carrying the cooler blood to the heart.

Another important part of cooling out horses is evaporation. After the horse has been sprayed off, it is very important to scrape the water off. This is because once the horse is sprayed, the water absorbs the horse's heat and becomes warm. In order for evaporation to occur effectively, this warm water must be removed. This process can be repeated until the horse's temperature comes down (i.e. spray then scrape, spray again then scrape again, etc.). If the water is not scraped off, it could act as an insulating layer and actually make the horse hotter than when you started.

In extreme circumstances, ice can be added to water for sponging to increase the speed of cooling the core temperature. It is commonly thought that ice will be a shock to the horse's system and could cause tying-up (muscle cramping); however, with extreme heat and internal body temperatures this is not the case. *If a horse is prone to tying up, it may be recommended to not*
directly apply the ice to the large gluteal muscles in the hind end, but focus on those key areas where the blood vessels are more superficial (the belly and inside of legs and thighs).

Is it OK to let the horse drink water? When cooling out the horse, a sip of water as it is walking won't be a problem. Yes, it is OK for the horse to drink when hot, but control the amount of intake, and break up the drinking into several segments. Don't let a horse drink its fill. Give it a sip, and then walk, a sip, and walk.

How to tell if a horse is overheating? Check the horse’s vital signs. If a horse is overheating, then its respiration rate will be higher than its heart rate. Count the horse’s breaths per minute, then count the heart rate per minute. If the horse's respiration rate remains higher, it is not cooling off; if the horse rapidly goes back to a higher heart rate than respiration rate, it is cooling down. Also check the temperature using a rectal thermometer. If over 105 degrees F, it is reason for concern, especially if it stays over 102 degrees F after 30 minutes of active cooling out.

5. Help Your Horse Handle Heat Stress

Jason L. Turner and Sandra Barraza - College of Agricultural, Consumer and Environmental Sciences, New Mexico State University

Summer is the primary season for many equine competitions, and intense exercise coupled with a high ambient temperature can quickly put horses in the danger zone for heat-related illness.

Here, heat-related illness, physiological mechanisms of heat loss, and techniques for relieving heat stress in equines will be discussed.

Before going into greater detail, it is necessary to define some basic terms related to thermoregulation—or the regulation of body temperature. The normal rectal temperature of the horse ranges from 99 to 100.5°F.

The horse’s natural thermoregulatory mechanisms are capable of maintaining this normal body temperature except when overwhelmed by severe circumstances, such as disease or intense exercise in hot climates. Hyperthermia (heatstroke) occurs when the core body temperature starts to rise because these regulatory systems can no longer effectively cool the horse. Heatstroke is a serious condition that can be fatal if not dealt with quickly. The most common clinical signs include an elevated respiratory rate of 40 to 50 breaths per minute (normal at rest is 8 to 16) that does not slow when at rest, a heart rate of 80 or more beats per minute (normal at rest is 36 to 44) that does not slow down after a few minutes of rest, a rectal temperature of over 103°F, lethargy, and/or profuse sweating or an absence of sweating altogether.

Some horses may suffer from a condition called anhidrosis, a disorder where the horse does not sweat normally. These horses are especially prone to hyperthermia if not managed appropriately. The specific
cause of anhidrosis is unknown; however, it is thought that there is a physiological defect at the level of the sweat gland that inhibits sweating. Your veterinarian can perform diagnostic tests that can confirm this condition if you suspect that your horse might be afflicted.

Hyperthermia most often occurs as a result of inadequate physical conditioning (poor fitness), extreme hot and humid conditions, a weakened thermoregulatory system, or a combination of the three. The heat index (HI), which is the temperature (in °F) plus humidity (%), gives a means of assessing the danger that extreme environmental conditions pose to horses performing intense exercise in such an environment. If the HI is less than 130 (e.g., 90°F and 20% relative humidity), then the horse’s built-in cooling mechanisms are usually capable of dissipating the excess body heat generated during exercise. However, when the HI is greater than 150 (e.g., 100°F and 60% or higher relative humidity), the horse will probably need assistance in order to prevent heatstroke. Owners should proceed cautiously when, or seek alternatives to, exercising horses in situations where the HI is greater than 170 or the relative humidity is above 75% since these conditions severely diminish the effectiveness of the horse’s thermoregulatory systems.

MECHANISMS OF HEAT REGULATION OR HEAT LOSS

In order to maintain a normal body temperature, the horse must dissipate heat that is produced as a result of normal body processes (e.g., digestion and muscular exercise). There are four main mechanisms that allow for this: evaporation, conduction, convection, and radiation. Evaporation (sweating) is the most important cooling mechanism for the horse because it removes heat as water (sweat) changes from a liquid to a gas (water vapor). Conduction occurs when heat is transferred from a hotter object to a cooler object by direct contact, such as using an ice pack on a sprain. Convection is heat exchange that occurs when an air current moves over the skin to pick up heat and/or moisture from the skin and carry it away. Radiation occurs when infrared rays carry heat from a hotter object to a cooler object. The heat that we feel from the sun is an example of radiation. We will describe the practical significance of these mechanisms later when we discuss means of relieving heat stress.

HOW TO PREPARE YOUR HORSE FOR A HEAT STRESS ENVIRONMENT

Prevention is the best medicine also goes for heat stress in horses. If at all possible, avoid strenuous exercise of horses when the heat index is near the danger zone. This may require adjusting your training/exercise schedule to do intense work early in the morning or late at night when ambient temperatures are lower.

If a horse must be worked in a high heat index situation, take extra precautions to prepare the horse for the challenge. First, make sure that the horse is physically fit and accustomed to the exercise program. Also, make sure that the horse does not suffer from anhidrosis before putting it in a potentially dangerous situation. Second, take frequent breaks that allow the horse to return to a resting heart and respiratory rate. Third, make sure that the horse has adequate access to clean, fresh water and salt through its normal diet in order to prevent dehydration during intense exercise. If you expect that your horse will be worked enough to sweat profusely and “lather up,” you may wish to provide an equine electrolyte
During intense exercise in a high heat index, the horse’s rectal temperature may exceed 103°F. Therefore, it is crucial to monitor your horse’s vital signs. If the horse recovers normally after exercise, then the heart and respiratory rates should be near normal after 30 minutes of rest following exercise. While rectal temperature may actually rise in the first 5 to 10 minutes after exercise as the horse dissipates the heat generated during exercise, the horse’s rectal temperature should begin to decline within the 30 minutes of rest following exercise. If the temperature doesn’t decline or if the rectal temperature is over 105°F, this is a cause for concern and the following methods should be used and you should seek veterinary guidance if available.

The primary goal is to lower the horse’s body temperature as rapidly as possible, and this is best done by employing “active cooling” methods that make the most efficient use of the heat loss mechanisms described previously. Once the horse’s rectal temperature has dropped below 101°F, active cooling can be reduced and the horse can be walked leisurely until all vital signs are normal.

Cool water bathing. The primary purpose of cool water bathing is to maximize conductive heat loss. The most efficient method is a cool water bath with a garden hose (Figure 2) or a sponge and bucket. The goal is to cool the blood in the major vessels along the neck, on the belly, and inside the legs. The cool water will take up body heat as it is warmed, so the water will need to be scraped off with a sweat scraper in order to remove the heat. This situation might require a team of three people, one to hold the horse, one to hose or sponge water onto the horse, and one to scrape the warmed water off of the horse. If water is not limited, it can be applied to the horse’s entire body, taking care not to get it in the horse’s nostrils or ears. If water is scarce, then towels wetted with a 50/50 mixture of water and rubbing alcohol might be helpful. Be sure to remove the towels, wring out the warmed water, and rewet them frequently to continue the cooling process.

Increasing air flow.

You can increase air flow over the skin by standing the horse in front of a fan or in a natural breeze if available. Convection pulls heat and moisture away from the skin, allowing it to cool.

Shading.
Keeping the horse out of the sun can minimize heat gain from the sun’s radiation and help maximize the heat loss gained by convection and conduction.

Drinking cool water.

Giving your horse cool drinking water can help with conductive heat loss while restoring the body fluids lost in sweat. Sweating results in a significant loss of body fluid, so it is important to monitor the horse and ensure that normal body fluid levels are maintained. Horses with mild dehydration (a loss of less than 4% body fluid) typically show no visual signs. Horses that are moderately dehydrated (4 to 9% loss) will show decreased skin elasticity (skin pinch test), poor capillary refill time of the gums, reduced saliva production, sunken eye sockets, muscle weakness, and fatigue. To perform the skin pinch test, take a fold of the horse’s skin on the side of the neck between your thumb and index finger and gently pull it away from the horse’s neck to create a “tent.” Then count the number of seconds that it takes for the “tent” to return to normal. In a properly hydrated horse, the “tent” should immediately go back into place. The more dehydrated the horse becomes, the longer it takes for the skin “tent” to return to normal.

We have all heard “you can lead a horse to water, but you can’t make him drink.” This is all too true, but research has shown that providing horses with a normal saline solution (0.9% saline or 2 tablespoons of normal table salt per gallon of water) to drink may encourage them to drink more and further aid in replenishing their body fluids. However, this is definitely a case where “more is not better”; be sure to provide the proper amount of salt in the saline solution, and also provide a bucket of plain water without any salt. Another study compared voluntary water intake of exercised horses that were offered water at three different temperatures (50°F, 68°F, and 86°F). Results showed that the greatest intake of water occurred when the temperature was 68°F. Offering a cool normal saline solution (68°F) can help restore body fluids while also cooling the horse via conduction (cool water inside hot horse). While it is not a good idea to allow a hot horse to consume an unlimited amount of water (as this may lead to colic), it is important to note that an 1,100-pound horse that has a 5% loss in body fluid would require approximately 5 gallons of water to restore this loss. So, it is advisable to allow the horse to voluntarily drink 2 to 3 gallons of water at a time separated by 10- to 15-minute intervals until the horse is no longer thirsty.

CONCLUSION

The key steps in helping horses handle heat and humidity are to

1. determine the potential for heat stress using the heat index criteria,
2. make efforts to minimize strenuous work in high heat index conditions,
3. be able to recognize the signs of hyperthermia in horses,
4. understand how the horse’s body cools itself, and
5. be able to employ active cooling methods in a critical heat stress situation.
Knowledge of these guidelines and methods will help you look out for the well-being of your horse during the hot, humid days of summer.

REFERENCES


6. Natural Overseeding Theory for Pastures or Hay Fields

Ben Chase, Extension Livestock Agent

I know you have seen this before but I had request for this article this week, so I thought I would include.

I have heard it said by many, when a pasture needs to be reseeded, leave pasture/hayfield grasses uncut and let it go to seed. With the belief that this practice can thicken up the stand by the natural overseeding process. The theory is, once the seed matures and falls to the ground, it will germinate, grow more grass, and produce a thicker stand. While this sounds like a really smart and natural idea at first, in reality it has little effect and could actually decrease the quality of your existing pasture or hayfield.

Reasons not to let pastures/hay fields go to seed for the purpose of “reseeding”

- Some grasses are hybrid grasses and most have been specially bred from wild varieties and either won’t produce seed to begin with or the seed may be sterile and will not germinate.
Once a grass plant grows tall enough and begins producing seed, most of the energy the plant was using to increase root mass has now been switched over to producing seed. In other words, producing seed is more important to the plant (than spreading rhizomes and stolens). As more and more energy is required for seeding, the grass plant begins to absorb nutrients from the soil at an accelerated rate. The more nutrients removed from the soil, the less healthy your stand will end up and you’ll soon find yourself spending more on fertilizer.

This practice can cause an increased weed problem. Most weeds can’t handle regular mowing, and this one act alone is usually the only thing needed to keep most weeds at bay. Allowing grass to grow tall and go to seed, weeds may develop and grow and they may also go to seed. Unfortunately, weed seed has a quicker, more successful germination rate than most grass seed.

Many folks who allow natural reseeding go ahead and cut the forage for hay AFTER the seed has matured and fallen to the ground. This forage is pretty poor quality to feed livestock during the winter months when they are in late gestation and/or producing milk for a newborn. Poor quality forage means more supplement will need to be fed, thus increasing production costs.

When fescue is maturing, the weather is getting pretty warm. Endophyte levels builds up in the plant this time of year in the varieties that contain endophyte (which is a toxin in K-31 fescue). If this forage is either grazed after seed production or harvested as hay, the toxic endophyte level will negatively affect the growth rate/production of livestock when the fescue is grazed or fed as hay.

While the idea of free grass seed produced naturally from uncut pastures and hayfields seems intriguing, in reality this is not such a good idea. Not only could it decrease forage quality, thinning and overall health of your stand it could also lead to an increased weed problem/infestation.

Reseeding/Renovating Pastures and Hay Fields

If your hayfields or pastures are not living up to your needs, it may be time to start thinking about reseeding/renovating it. Late summer and fall is the perfect time for this because weeds are not as big of a problem. The primary cool season grasses we use are fescue and orchard grass.

1. Start by taking soil tests (in order to meet the nutritional requirements of the grass) and apply lime and fertilizer based on a soil test results.
2. Proper selection of forage species and varieties. It takes a lot of resources to renovate or establish a pasture or hay field. Make sure the money you spend is spent on quality seed which will ensure a good stand, and not the on sale seed, that can actually cost more in the long run. Consider adding legumes, which are known for increasing the amount of forage grown per acre. This means the palatability, intake, digestibility, and nutrient content are all improved, giving you better performance from livestock. Nitrogen is added into your soil from the legume, thereby increasing the quality of your grass. You may be able to save money by planting legumes instead of purchasing nitrogen to add to your soil for existing grasses. Legumes also give you more growth during the summer. If you grow a mixture of grasses and legumes you should be able to have more forage available throughout the year.

3. Always use the correct seeding rate. (check the drill) Follow the suggested seeding rates. More is not always better! Stand density will significantly influence yields, nutrient removal, erosion and water quality.

   Plant the proper amount of seed by following the correct seeding rate does two things:
   - You get enough seed in the ground to get the proper number of plants per acre.
   - When high seeding rates are applied you are creating a crowded situation where the young seedlings will be competing with each other for water and nutrients.

4. Check depth of seed at planting. A common problem is producers may go rent a seed drill, put seed in the hoppers and off they go. One of the biggest reasons that planted grass does not come up is due to being planted too deep. Most of the grasses and clovers should be planted no more than ¼ inch – ½ inch with good soil to seed contact. Check the depth the drill is set to plant and check it once its placed into the ground. Planting seeds too deep could result in poor seedling emergence, causing a poor stand.

5. Plant at the proper time. The best seeding dates for fescue/orchardgrass are August 25th through mid to late September but can also be planted through October, (spring dates mid February – end of March) by using a no-till drill (to sow seed into the ground). Fall seedings are more successful in most years than spring seedings. If planting in the spring, it is important to plant in early spring, giving the seedlings time to develop a root system before the summer heat and dry conditions develop. The main consequence of planting at the wrong time are thin stands which allow for encroachment of “unwanted” weedy species. This is costly in terms of money and lost production. Unfortunately, many people “live with” marginal stands, and because of the perennial nature of the plants this can influence performance for many years.
6. Plant when moisture is available. Water is the most critical nutrient for plant survival. Without nitrogen, potash or phosphate, a plant might not be very productive, but it should still be able to survive. A lack of water will result in the plant’s death. If using a no-till drill to plant, adequate soil moisture is a must. You are depending on the drill to slice open a furrow in the soil, drop the seed and then press the soil together for good soil-to-seed contact. If the soil is dry, it may be too hard for the disc openers to get into the soil, and soil to seed contact will be poor. A poor stand may result because seed was dropped on top of the ground instead of being placed in the ground. Planting into a hot, dry seedbed poses a great risk, even when planted within the recommended seeding dates. Another reason to plant when adequate moisture is available for successful stand establishment is because seeds need moisture to germinate. If the soil is dry, the seed will not germinate until rain comes. Often there is just enough moisture for the seed to germinate and begin to grow, but before the root system can get established, the seedling dries up and dies from moisture stress. Don't be lulled into thinking that just because you are able to drill or disk a field, all problems are solved. Without adequate moisture, seedlings have no hope of getting established.

7. Minimize competition from weeds. Limiting competition from weeds and other plants is important for successful planting. With no-till plantings, if necessary, weeds may be killed chemically or in some cases seed may be able to be drilled into existing stand. Clean up any persistent weed problems in the field before seeding begins. It is easier to kill weeds when there is no concern about young grass seedlings. Once planted, keep an eye on weed competition. To limit this, herbicides can still be used to kill many broadleaf weed species, although the options are more limited after the grass is planted. SOME HERBICIDES CAN DAMAGE OR KILL YOUNG FESCUE/ORCHARDGRASS (and can kill or stunt clover), so read herbicide label to know restrictions.

8. Management - Manage your pastures so you will have grass later.

Typically, a newly seeded pasture needs at least 6 months to let grasses establish. If over seeding, you can graze sooner or take a spring hay cutting before turning it back into a grazing pasture.

With a new stand, the biggest issue is the lack of root development and many times producers see these new lush green pastures and let the livestock have at it. In these new stands, livestock that are allowed to freely graze, pull the grass out by the roots damaging or killing the stand. A rule of thumb for these young stands is to go out before livestock have exposure and grab a hand full of forage early in the morning and rip just like an animal grazing. If the roots come out when you do this, the same thing will probably happen when the animal does it. So, this means close management and limited grazing is needed.

Grazing seedlings when the soil is wet or soft often results in damage or burying of the seedlings by the hoof action of the animal. If the soil is dry and firm the grass seedlings are remarkably tolerant of foot traffic as long as they are not also grazed below 3-4 inches of stubble. As a general rule grazing after the plants reach 8 inches of height will encourage more tillering and
thicker stands than waiting longer before the first grazing. Rarely is it wise to wait until the end of the growing season to first graze a new planting. The exception is for many of the native warm season grasses may not be used the first season.

The goal of a cool-season perennial pasture or hay field is to produce an acceptable yield of quality forage. As a forage plant grows older and matures, the quality of the forage decreases. When the plant begins to change from vegetative growth (growing leaves) to reproductive growth (producing flowers and seedheads), the protein and energy level in the forage drops, while the fiber level increases resulting in reduced forage quality. The down side with cutting hay early for a higher quality of forage is that yields are lower. If a plant is allowed to grow into its reproductive phase, yield will be increased and quality will decrease. Yield and quality must be balanced. Grasses should be cut in the “boot stage” just as seedheads begin to show from the sheath of the plant. This stage is where the acceptable trade-off is found between yield and quality. If forage is allowed to grow old and mature, forage quality will be reduced.

Overgrazing, (especially during the summer) will often result in the loss of a pasture stand. When the leaves of a forage plants are removed, the plant must use carbohydrates stored in the roots and crown for the regrowth of leaves. As leaves develop, the plant is then able to capture sunlight and produce energy for growth through photosynthesis. If the plant is constantly overgrazed, it has to continue to use its energy reserves to grow new leaves, without the opportunity to replace those reserves with excess energy made from the photosynthesis. The overgrazing reduces carbohydrate reserves until the plant is stressed to the point that it dies. Proper grazing management allows the plant to be grazed, but prevents constant overgrazing. The best way to minimize overgrazing is to reduce pasture size, and move animals from pasture to pasture, allowing a 3-4 week rest period between grazing. Cool-season grasses such as tall fescue, orchardgrass, wheat and ryegrass should be grazed when they reach 8 inches tall, and livestock should be removed when the forage is grazed down to 3-3.5 inches. Bermudagrass can be grazed down to 1-2 inches, because it has more leaves lower on the plant, and does not require as much energy from root reserves for regrowth.

Consider turning livestock out onto pasture when forage reaches 6-8" forage height. One inch of plant should yield 250-300 lbs. of dry-matter nutrition per acre, so 6-8" forage heights should produce total yields of a ton. The key is to only allow livestock to take half the existing forage. To accomplish this, you will most likely need to move livestock daily or provide large enough pastures that the animals do not graze the plant below the 3- 4" range. Grazing below that height will slow recovery, decrease growth, impact root development and ability to survive stress (like drought).

In early summer when forages grow explosively, livestock can return to the same pasture paddock in as short as 18 days. But in late summer and fall it may be as long 45 to 60 days.

Focusing on rotational grazing will help grazing go further, lower your feeding bill and is the simplest and cheapest method of parasite control. Rotation is everything, grazing fescue/orchardgrass down to about 3 inches. The question is how big of a section do you give
them? That will depend on a number of things

1. Type of forage and expected yield
2. Number of livestock grazing
3. HOW OFTEN YOU WANT TO MOVE LIVESTOCK.
4. Water Availability  - Water can be a challenge/limiting factor in a rotational system

So a quick answer to this question is by using fencing - temporary fence/wire/tape - play with it. The goal is to get livestock to consume the forage that they are exposed to for the period of time. So play with how big the area is depending upon if you move them daily or every other day. If you don’t make them eat it, THEY WON’T!

In our area, the predominate cool season pastures are tall fescue and orchardgrass and our predominate warm season grasses are bermudagrass and crabgrass. Below is a general target grazing scheme for these grasses.

<table>
<thead>
<tr>
<th>Grass Type</th>
<th>March-April</th>
<th>May-June</th>
<th>June-July</th>
<th>July-August</th>
<th>September-October</th>
<th>October-November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fescue and Orchardgrass (other cool season grasses with/without white clovers)</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
</tr>
<tr>
<td>Fescue mixed with Bermuda or Crabgrass at about 70:30 ratio</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
</tr>
<tr>
<td>Bermudagrass. Common, hybrids and seeded varieties plus mixtures with clovers or mixtures with crabgrass</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 2-3 inches</td>
</tr>
<tr>
<td>Crabgrass and associated warm season species</td>
<td>Start Grazing 6-8 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 6-12 inches.</td>
<td>Stop Grazing 2-3 inches</td>
<td>Start Grazing 4-6 inches.</td>
<td>Stop Grazing 1-2 inches</td>
</tr>
</tbody>
</table>
7. Finding a Farrier

Here is the website for the North Carolina Horseshoers Association

http://ncfarriers.org/

Click on Farrier Finder at top of page

The list below was taken off this web site

**ROCKINGHAM COUNTY**

- Hunter, James  336-548-2932  Reidsville, Rockingham County, NC
- Knight, Damon  336-548-6876  Madison, Rockingham County, NC
- Lankford, Jay  336-349-4723  Reidsville, Rockingham County, NC
- Lankford, Rick  336-427-5750  Mayodan, Rockingham County, NC
- Rieson, BJ  336-414-7007  Stokesdale, Rockingham County, NC
- Stone, Clarence  336-939-7493  Reidsville, Rockingham County, NC

**GUILFORD COUNTY**

- Jones, Donald  336-674-7897  Plesant Garden, Guilford County, NC
  - Jones, Mitchell  336-697-8711  Julian, Guilford County, NC
- Jones, Ruthann  336-674-7897  Plesant Garden, Guilford County, NC

**ALAMANCE COUNTY**

- Friddle, James  336-639-5656  Graham, Alamance County, NC
- Greene, Larry  336-227-9743  Burlington, Alamance County, NC Retired
**RANDOLPH COUNTY**
- Craddock, Jack 307-281-0543 Asheboro, Randolph County, NC
- Green, Neil 336-431-3771 Trinity, Randolph County, NC
- Hawkins, Roger 336-302-5257 Asheboro, Randolph County, NC
- Brian, Hunt 336-672-1626 Asheboro, Randolph County, NC
- Hunt, Joel 336-434-4333 Archdale, Randolph County, NC
- Hunt, Sawyer 336-953-0932 Asheboro, Randolph County, NC
- Newsome, Dean 336-896-8893 High Point, Randolph County, NC

**CHATHAM COUNTY**
- Burkhead, Chris 919-708-7288 Sanford, Chatham County, NC
- Crowder, David 919-796-1216 Siler City, Chatham County, NC
- Henderson, Andy 919/812/0701 New Hill, Chatham County, Wake County, NC
- Howard, Benny, Sr. 919-418-0867 Siler City, Chatham County, NC

**DAVIE COUNTY**
- Davis, Bob 336-998-5178 Mocksville, Davie County, NC
- Engleman, Robert 336-978-4875 Mocksville, Davie County, NC
- Koontz, Wendell 336-492-5262 Mocksville, Davie County, NC
- Meeker, Jim 336-998-7131 Mocksville, Davie County, NC  Veterinarian

**DAVIDSON COUNTY**
- Clodfelter, Chris 843-655-5782 Winston Salem, Davidson County,NC
- Essick, Cody 336-705-0846 Kernersville, Davidson County, NC
- Hinson, Al 336-225-5210 Lexington, Davidson County, NC
- Jones, Melvin 336-475-4175 Thomasville, Davidson County, NC
- Langenegger, Weldon 336-769-1370 Winston Salem, Davidson County, NC
8. Reminders

June - August  - PRACTICE TRACTOR SAFETY - To get maximum use of available grass, utilize cross fencing. A late planting of summer annuals may be made to extend forage supply. *Take soil samples for fall plantings. Come by and pick up your free soil sample boxes and sheets. *Finish grazing cool season grasses before grazing warm season. *Apply nitrogen to warm-season grasses after each cutting (or 4 to 6 weeks) *Graze bermudagrass to a 3-4 inch stubble and harvest excess every 4-6 weeks. *Control weeds *Be aware of potential of Nitrate & Prussic Acid poisoning from animals if grazing stunted, highly fertilized summer annuals, *In August, prepare for fall plantings and fertilizer applications. *Keep good forage records. *Drag pastures to spread manure *Be cautious of combustion - Hay Fires - Hay in round bales should not contain no more than 18% moisture and square bales no more than 20%. *Fertilize cool season grasses if you haven't done so *Harvest fescue and orchardgrass pastures or hayfields as soon as the seed heads begin to flower *Begin grazing of fall-planted fescue, orchardgrass, and clovers when growth reaches 6 inches *To maintain clover in pastures and maintain quality, develop a rotational grazing system where animals take growth down to about 2 inch height before moving them to another section. Fertilize warm season grasses as soon as dormancy breaks *Scatter manure droppings in pastures and where hay was fed.


9. Fertilizing & Horses
One very popular question is when you fertilize or apply lime a field, is it necessary to keep horses off that field until it rains to prevent having problems with the horses? (Getting sick)

In the “Ideal” world, horses should be removed from newly fertilized pastures and be reintroduced to the pasture after a light rain. However, that may not be feasible due to housing space for the horse(s). Under normal conditions when ammonium nitrate (33%N) is used and a good even distribution of fertilizer is obtained, there should not be a threat to horses in that pasture. Horses have a greater tolerance to nitrogen than most people think (Meadows et al., 1978). However, if a fertilizer truck dropped a big pile of urea (82%N) on the pasture and the horse consumed a large quantity of the fertilizer, a problem could persist. With proper spreading of fertilizer and under normal conditions, a horse grazing recently fertilized pasture will not even have loose manure as a result.

High nitrate content in forages may present potential horse health problems. As a guide, 60 pounds or less of nitrogen applied per acre of pasture is considered safe. Sixty to 100 pounds of nitrogen applied per acre is marginal and may sometimes cause potential problems. If 100 pounds of nitrogen per acre is applied, horses should be kept from grazing until after a rain.

Precautions in pasture fertilization are:

1. Look for areas that fertilizer may have been piled up or spilled. Walk the fields after fertilizer application to make sure the truck did not leave piles, especially where the truck makes turns. If you do have a spill or a pile, thoroughly spread out (or clean up) and till if necessary. (Fertilizers are salts, so sometimes an animal make try some, but its not in a pile its consumption will be very low and hopefully will not be an issue)

2. Try to apply lime in the absence of horses. Lime is very dusty especially the pulverized lime; Lime dust inhalation may cause respiratory problems. If possible,
keep horses off limed pasture until after a rain. (Lime can be applied at any time of year)

3. If fertilizer adheres to wet forage at application time, horses should be withheld until after a rain. Avoid fertilizer application to wet foliage.

4. To do these things you need to have a grazing plan, so you can move animals around within your system and apply when animals are not on those sections.

10. Piedmont Horseman’s Association June 10 Show

Our next show is this Saturday, June 10 at Circle K Ranch in Graham. Show begins at 10am. Everyone is welcome to attend. This is an awesome facility to show at and they always have nice awards! You can find a Facebook event page for the show or find out more information on the website.

Are you looking for a local open horse show association that is friendly and offers a variety of classes for all ages? Look no further…Piedmont Horseman’s Association has been around for 46 years and still going strong! PHA is offering field hunter, stock type hunter, western pleasure and working western classes.

Piedmont Horseman’s Association helps create a wholesome, family atmosphere in the great sport of Horse Showing; and for each member to exhibit his or her horse or pony in a sportsmanlike manner. There are many benefits of being a member of PHA; reduced entry fee at sanctioned shows, accumulate points for year-end awards, and much more! We hope you will become part of the PHA family!!

We have 9 shows scheduled for this year so be sure to check our calendar. You can find all the details on the web site: http://www.phasince1971.com/index.htm

11. Vices or Abnormal Horse Behavior
Abnormal behavior or Vices in horses can be the result of nervousness, aggressiveness, fear, boredom and nutritional imbalances. Vices can affect horses’ endurance, health and usefulness; may be dangerous to the handler and horse and could result in extensive property damage. Typical acquisition of one or more vices will significantly decrease a horse’s net value. Understanding that vices are behaviorally based may assist in preventing and/or treating these problems. Some common vices are:

Wood chewing - This occurs with both stabled and pastured horses and can be due to a lack of fiber in the diet. It can also be due to boredom.

Cribbing - This term is sometimes confused with wood chewing; however, cribbing is more serious. It actually involves the grasping of a surface (often wood) with the teeth and swallowing air. This behavior can cause horses to lose weight, wear down their top incisors, and be more prone to colic. Cribbing is sometimes incorrectly referred to as wind sucking, but wind sucking is a problem experienced by mares when air is pulled into the vagina.

Cribbing can be destructive to the horse as well as structures.

Stall kicking - This behavior involves a horse habitually kicking or pawing the walls and/or floor of its stall. This behavior often intensifies near feeding time.

Weaving or circling - Weaving is the shifting of the horse’s body from side to side. Circling and head bobbing are self-describing. All these and other habitual movements may simply be annoying or may become so persistent that they actually result in a tired and listless animal.

Correcting behavioral vices can be difficult. Punishment is almost never effective and may actually worsen the condition. Try to determine the basis for the problem. Several simple management practices can be offered:

- Routine grooming & physical contact with people
- Allow them to get more exercise, or turn them out periodically into an open paddock or pasture, Exercise (free choice) is ideal.

Horses are social, or herd, animals. If part of their vice problem is boredom due to lack of companionship, providing a companion animal might help. A variety of companion animals, from chickens to goats, as well as another horse or pony have been used successfully.

- Play radio stations that provide music and talk shows
- Provide play toys in stalls (medicine ball, plastic jugs tied up)
- Increase fiber content in the diet (feed a balanced diet with at least 50% forage intake)
- Feed on a regular schedule

For example, if the horse is chewing the planks on the stall because of a lack of fiber in the diet, simply feed it more hay or a lower-quality hay with more fiber. If the horse is chewing because of simple boredom, provide additional stimulus to decrease the boredom and the wood chewing. It is also recommended to put up a barrier, such as wire or metal flashing, over the favorite chewing place, or a deterrent such as hot pepper sauce on the wood. Sometimes, a simple change can prevent wood chewing. Move the horse to a different stall or allow more pasture time.

Cribbing is even harder to correct, but it is more important to find the solution, because it is potentially more dangerous to the horse. Sometimes, a cribbing strap placed around the throat will make swallowing difficult enough that it curbs the habit. You also can use a grazing muzzle that allows grazing and drinking but prevents cribbing.

Since vices are difficult to stop, care should be taken to eliminate the cause of abnormal behavior immediately. Provide your horse with sensory stimulations, however, if your horse does develop a vice, look for the possible causes and consult a professional. Rapid elimination of the cause, which usually involves a change of environment, will reduce the occurrence of the vice. Each horse is a unique individual and causes for vices may vary from one horse to another.

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12. Botulism in Horses

Botulism is a deadly disease caused by the toxins produced by the bacterium Clostridium botulinum. This potent neurotoxin impairs nerve function that can cause paralysis of muscles and is often deadly.

C. botulinum is an anaerobic (lives without oxygen), gram-positive, spore forming bacterium. The clostridium family can cause several different diseases such as botulism, tetanus, blackleg and malignant edema. These can be rapid, severe and deadly diseases that sometimes show no clinical signs; the animal is simply found dead.
The bacterium and its spores are widely distributed in nature. They are found in soil, sediments of streams and lakes. They can also be found in the intestinal tracts of fish and mammals. The bacteria will produce toxins under conditions of decaying plants and animals.

Adult horses can be get botulism in two ways: 1) By consuming feed or forage containing the pre-formed toxins of C. botulinum (known as forage poisoning). 2) Through wounds contaminated with the bacteria, generally puncture wounds.

Botulism from forage poisoning can occur when animals eat forage that has spoiled or any type of feed that has been contaminated by a decaying animal. Spoilage can occur when hay is baled at too high of a moisture content. Additionally, hay that has been fed or has spilled onto the ground and has mixed with soil and feces provides a greater risk for horses contracting botulism. If dead animals accidentally get baled into the hay, botulism can occur.

The clinical signs of botulism in horses include weakness; decreased muscle tone of the tail, eyelid, and tongue; trembling; dilated pupils; lying down; difficulty in swallowing; drooling; and green or milky nasal discharge. Horses progressively get weaker, and once the diaphragm muscles become involved, respiratory failure occurs, and the horse dies of asphyxia. The disease can hit suddenly and result in the death of horses that were perfectly healthy the day before. Botulism causes a flaccid paralysis, unlike tetanus that causes a rigid paralysis.

Treatment for botulism is an administration of an antitoxin. This should be done early in the clinical signs to have any chance of success. However, treatment is costly, difficult and often too late. Therefore, it is better to prevent the disease.

Prevention includes being diligent about feeding a good, quality hay and other feedstuffs. Any questionable feed should be eliminated. Additionally, there is a botulism vaccine. Talk with your veterinarian about an appropriate vaccination schedule for your horses.

13. 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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14. Swap Shop

Shooting Star Horse Farm:
ShootingStarHorseFarm.com
336.423.6981

Open House. Tour the facility and meet manager/trainer Cheryl Terrio Bell.-Date-T.B.D.

Open PHA Show-Aug 5

Summer Camp-July 17th-21st

Western and English horses available for lease.

Boarding spots available.
Full board $500
Indoor Arena
Corporate leadership and team building workshops with horses:
http://livelyheels.com/

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15. Take A Load Off

A Woman Shoots Her Husband

For Stepping On the Clean Floor…

A police officer jumps into his squad car and calls the station.

“I have an interesting case here,” he says. “A woman shot her husband for stepping on the floor she just mopped.”

“Have you arrested her?” asks the sergeant.

“No, not yet. The floor’s still wet.”

A Trashy Career

“Has your son decided what he wants to be when he grows up?” I asked my friend.

“He wants to be a garbage-man,” he replied.

“That’s an unusual ambition to have at such a young age.”

“Not really. He thinks that garbage-men work only on Tuesdays.”

*****

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 Weekend!

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