

# I WOULD REALLY LIKE YOUR FEEDBACK!

Hello All,

**Included is the Weekly Pile of Information for the week of October 4, 2015, 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. Preparing for Winter: Fall Horse Chores**

**2. Oaks – Are They Poisonous?**

**3. Horse Plans – Building Horse Stuff**

**4. You Asked**

**5. Common Hoof Problems**

**6. Caring for the Older Horse:** Common Problems and Solutions

**7. Colic Examinations**

**8. POULTRY**

**9. NC Judging Short Course** Oct 24-25

**10. HorseFriends 10th Anniversary Celebration**

**Fall Fun Show and Costume Contest**

**11. DON'T FORGET** - Soil Testing Charging A Fee During Peak Season

**12. HAY**

**13. Swap Shop**

# 14. Take A Load Off

+++++

## 1. Preparing for Winter: Fall Horse Chores

Paul Westfall, NC Cooperative extension, Granville County

Now that it is officially fall on the calendar (and the weather has been a bit fall-like recently), horse owners should take a bit of time and get busy with preparations for winter. Of course, that means additional chores to do, so get the lists ready.

There are some items that need attention indoors, and some outdoors, so we'll cover both sections in turn. The first item that needs attention is to check the inventory of hay, bedding, and feed. See if there is enough hay and bedding, at least, to get through the winter feeding months. Since a horse will consume 1.5% to 2.5% of its body weight per day – depending on if it is just lounging around or in early lactation – the horses' weight can be used to estimate dry matter intake for the total ration. That can be further refined for the amount of hay needed by subtracting out the pounds of grain fed per day. For example, let's say that a gelding weighs 1,100 pounds and is working hard enough to need about 2% of its body weight in the daily ration. If the horse is used for light or moderate work, 2% is a good number to use. That translates to 22 pounds of feed in the ration. If three pounds of grain are fed, then the horse will need about 19 pounds of hay per day. If 50-pound square bales are used, then one bale will feed the horse for two and a half days. If the winter feeding period lasts 100 days, then the number of bales needed to get the horse through the winter feeding period can be calculated. In this case, it will take 38 bales for this one horse. This calculation can be made for each horse, then totaled. Make some allowance for those bales that don't weight 50 pounds, or consider buying the hay by the ton and make sure that the loads get weighed. This keeps the purchase fair for buyer and seller.

If there is not enough storage space, then the horse owner may want to go ahead and contract for hay to be delivered at intervals through the winter and take advantage of lower prices when hay supplies are more plentiful. The same estimate can be made for bedding needs. Just figure out how much bedding is needed per day and calculate.

Check the horse's winter blanket (if blankets are used). Horses that are shown or clipped to ride through the winter will need to have a good blanket. Check all the blankets and make any needed repairs. If one is just too worn, is full of rips and tears, or is just too thin, then consider replacement.

Take a few minutes to spruce up the barn before cold weather sets in. Replace any old light bulbs, get a new water hose instead of making yet another repair on the old one, or maybe put some fresh gravel around the barn, especially if there are some holes to be filled. Check any rubber mats to see if they are in good shape. These tasks are easier to take care of in warmer weather than when an icy wind is blowing.

Make sure that the storage area has the supplies needed for winter work. Some items might include gloves, ice melt, and other equipment. Clean the storage area out and reorganize it going into winter weather. Make sure deicers, water heaters, and any heated water buckets are clean and ready to use.

A grooming vac or blower is a good tool to have handy to dry horses after rain or snow, or after heavy use. Getting the horse dry quickly can head off respiratory infections or other illnesses. Getting the wet horse under a dry blanket also helps in these cases even if the horse does not use a blanket most of the time.

Winter calls for the use of rubber buckets (these are good year round). Plastic buckets tend to break and shatter in cold weather, especially when ice forms and has to be removed. Rubber buckets can stand a good deal of abuse and still be usable.

Outdoors, get soil samples taken and sent in to plan the next year's fertility program. Get any overseeding done, if needed. Check with your County Extension Agent about varieties of grasses and legumes recommended for your area.

Check the fences and make any needed repairs. Remove any large branches or tree limbs that may fall on the fence during the winter. Again, this chore is more easily done without an icy wind blowing or before the horses have escaped through the downed fence.

Take note of any low or wet areas around gates, waterers, or in high traffic areas. Some preventative work here can prevent ice formation, which in turn leads to skidding and falls of both horses and people. Avoiding one vet or doctor bill by leveling low areas will more than pay for any gravel needed to fill holes.

Take a look around and make note of anything that might need to be taken care of before temperatures fall for the winter months. Being a bit proactive on maintenance and winter

preparation can save a lot of time and effort later on.

+++++

## 2. Oaks – Are They Poisonous?

Parts taken From Plants Poisonous To Livestock and Pets in North Carolina (Bulletin No. 414)

From Plants Poisonous To Livestock and Pets in North Carolina (Bulletin No. 414)

There are 28 species of oaks throughout NC, these can be dangerous mainly when forage is scarce or when animals gorge themselves.

Poisonous Principle - large amounts of gallotannins & possibly other compounds identified as quercitrin & quercitin.

Parts of the plant - Acorns: young shoots (leaves) when taken in quantity mainly when eaten without other feed. When taken with other feed the oak LEAVES are not only harmless but contain valuable food elements.

Cattle & Sheep most often affected & horses & goats to a lesser degree.

Symptoms - Gastrointestinal & renal dysfunctions, constipation & later diarrhea, loss of appetite, rough coat, dry muzzle, excessive thirst & urination, pulse weak & rapid.  
Depression, emaciation, rumen stasis.

Treatment - Oil type laxative, ruminotorics, parenteral fluid; nutrient therapy, and glucocorticoids . Feeding 10% calcium hydroxide may prevent symptoms. Transplantation or ruminal microflora. If illness has progressed to the point of advanced renal dysfunction, it is rare for animals to recover.

Necropsy - gastritis & enteritis, with a bloody false membrane forming in the intestine;

increased peritoneal & plural fluids & petechiation on the subserous tissue, kidney, & heart; necrosis of the proximal tubules, numerous hyaline casts in the kidney, and necrosis of the liver as seen microscopically. Perirenal edema.

So far in my career, I have only seen in Cattle (Numerous) & Goats but I cant say I have heard of it with horses but .... **I know that it can happen** and it is something preventable.

What I have seen is where large amounts of acorns were ingested, and the tannic and gallic acids in the acorn caused severe damage to the gastrointestinal system and kidneys.

From what I understand Mature (brown) acorns are not known to be as toxic. If the acorns in your pasture are mature (brown), then there is a low risk of toxicity to horses. If the acorns are immature (green), then you must keep the horses off the pasture until the green acorns have been removed. (Storm could have caused to come off early)

<http://www.caes.uga.edu/extension/cherokee/anr/documents/PlantsToxicToHorses.pdf>

<http://www.extension.umn.edu/agriculture/horse/pasture/oak/>

<http://www.extension.colostate.edu/boulder/sam/pdf/PlantsPoisonoustoHorses2005.pdf>

<https://njaes.rutgers.edu/pubs/fs938/>

<http://www.thehorse.com/articles/12962/which-trees-are-toxic>

+++++

## 3. Horse Plans – Building Horse Stuff

I know some of you are very talented and can build anything. I get request all the time for building plans for various things. Here are some links and information for building horse buildings & equipment. To start with are just Guidelines...NOT LAW

Stall Size Hieght of stall 8 ft Min, (allyways 9ft)

- 10x10 absolute Min stall size with a 10x12 preferred

- Stallions & Foaling Stalls - 12x14

- It also suggest that 1 to 2 stalls in a barn to have removable walls converting two 10x12 foot stalls into a 20 ft by 12 ft with wall removed.

The NC Extension Horse Management Notebook

"Equine Facility Development" another publication called "Planning a Horse Facility"- page 333  
on line

<http://www.caes.uga.edu/departments/bae/extension/handbook/documents/horses.pdf>

In California - [http://www.vetmed.ucdavis.edu/ceh/local\\_resources/pdfs/CASStandards-Feb2014.pdf](http://www.vetmed.ucdavis.edu/ceh/local_resources/pdfs/CASStandards-Feb2014.pdf) (page 28)

Housing and Space Guidelines for Livestock - UNH Cooperative Extension programs

[https://extension.unh.edu/resources/files/Resource000471\\_Rep493.pdf](https://extension.unh.edu/resources/files/Resource000471_Rep493.pdf)

## Chapter 8: Horses - Federation of Animal Science Societies

<http://www.fass.org/docs/agguide3rd/chapter08.pdf>

Here are the recommendations from the FASS Guide-based on science and practice. See attachment for better formatting of the table. Also, this is the web site for the free PDF copy of the Guide, as many communities use it for permits and board recommendation for horse managment. ... [http://www.fass.org/docs/agguide3rd/Ag\\_Guide\\_3rd\\_ed.pdf](http://www.fass.org/docs/agguide3rd/Ag_Guide_3rd_ed.pdf),

Area		m
ft		
<b>Indoor facilities</b>		
Box stall: 1.8 m <sup>2</sup> /100 kg (9 ft <sup>2</sup> /100 lb) of body weight (BW)	3.7 × 3.7	12 × 12 Straight or tie stall,
including manger: 0.82 m <sup>2</sup> /100 kg (4 ft <sup>2</sup> /100 lb) of BW	1.5 × 3.72	5 × 12
Alleys, width		
Between rows of stalls	2.4–4.3	up to 14 ft
Behind rows of tie stalls	1.8	6
In front of rows of tie stalls	1.2	4

## Outdoor facilities

Run-in shed (per 1,000-lb horse; up to 2 horses)  
for

3.3 × 3.3

11 × 11 Fencing height

Horses

1.4–1.8

4.5–6.0

Ponies

1.1–1.5

3.5–5.0

Outdoor pen (for single horse)

3.7 × 3.7

12 × 12

Pasture per horse

≥0.4 ha

≥1 acre

1 Stall and pen sizes should accommodate normal postural adjustments of average-sized light breeds of horses.

2 ft) are used; length is

measured from the front to the rear of the stall.

front to the rear of the stall.

The 1000 sq ft is for feedlots with horses. Not sure what the reference was but it may be a USDA Feedlot requirement.

## Blueprints – Horse Equipment and Housing Plans

<http://extension.colostate.edu/publications-2/blueprints-and-housingequipment-plans/blueprints-horse-equipment-and-housing-plans/>

## Housing and Space Guidelines for Livestock

[https://extension.unh.edu/resources/files/Resource000471\\_Rep493.pdf](https://extension.unh.edu/resources/files/Resource000471_Rep493.pdf)

## Horse BUILDING PLANS

<https://www.ag.ndsu.edu/extension-aben/buildingplans/horse>

## HORSE PLANS

<http://bioengr.ag.utk.edu/extension/extpubs/planlist97.htm#Horse Plans>

<http://bioengr.ag.utk.edu/extension/extpubs/planlist97.htm>

## GENERAL BARN AND UTILITY SHED PLANS

<http://bioengr.ag.utk.edu/extension/extpubs/planlist97.htm#>

## Health Considerations When Housing Horses

[http://msue.anr.msu.edu/uploads/resources/pdfs/Health\\_Considerations\\_\(E3162\).pdf](http://msue.anr.msu.edu/uploads/resources/pdfs/Health_Considerations_(E3162).pdf)



—

**Introduction to Housing for Horses**

[https://www.extension.purdue.edu/extmedia/as/as\\_553\\_w.pdf](https://www.extension.purdue.edu/extmedia/as/as_553_w.pdf)

**HOUSING FOR PLEASURE HORSES**

<http://www2.ca.uky.edu/agc/pubs/id/id57/id57.htm>

**Horse Stable Ventilation**

<http://fyi.uwex.edu/horse/files/2012/08/ventilation.pdf>

+++++

## **4. You Asked: Will powder lime help with the smell in a stall, if so will it hurt animals?**

*I will try to be as thorough as I can.*

If Agricultural lime/Dolomitic Lime is used (in stalls & areas where waste has been) to dry up the moisture it does not actually absorb the smell of the ammonia. Ammonia comes from a substance in urine and manure called urea. While urea has no odor and is not toxic, it can quickly and naturally convert to ammonia. If there's too much ammonia in the air, it poses a threat to horses & others. Exposure to too much ammonia can cause respiratory problems & also Thrush.

Lime placed under a stall will help absorb the moisture. So Strip stalls or wet areas, place lime underneath bedding so the animals does not stand directly in it or get it on its skin, always cover with bedding before animals return.

The lime should not cause problems under normal situations (as far as consumption and hoof contact if does not come into direct contact) but the dust could cause an issue (especially in horses) if a lot is used, so be aware of this.

There are different kinds of Lime (we see a lot of Dolomitic lime use) It doesn't matter the

type of Lime, all can cause Respiratory problems due to the dustiness.

Ag Lime ( $\text{CaCO}_3$ ) is chemically known as, Calcium Carbonate and is essentially made from pulverized limestone. It is not generally considered caustic, toxic, or harmful, etc., BUT.....IT doesn't have ability to take up ammonia. If you put enough of this lime on a urine area you may succeed in covering up the ammonia and odors (same is true if you used dirt/soil), however the ammonia remains and will eventually fill the environment again.

Dolomitic Lime ( $\text{CaCO}_3$ ,  $\text{MgCO}_3$ ) is made from dolomite. It contains similar high levels of calcium and also contains magnesium. Both can be effective & beneficial for improving soil.

Since Dolomitic Lime contains Mg, and if soil test indicates high magnesium levels, It would be best to use agricultural limestone.

HYDRATED LIME (also called Slack Lime or Builders Lime) – MAKE SURE YOU ARE AWARE OF HOW TO USE THIS MATERIAL! -Chemically known as, Calcium Hydroxide  $\text{Ca}(\text{OH})_2$ . this material could raise pH to very high and even toxic levels with only short term effectiveness. Hydrated Lime is very caustic, toxic and hazardous to handle & breathe. Hydrated lime has a very limited ability to essentially "cover-up" ammonia odor for a short period of time. And in the long run can actually increase ammonia. Because urine contains an unstable molecule ( $\text{NH}_2$ ), Lime and bacteria force the  $\text{NH}_2$  molecule to pick up another hydrogen atom.  $\text{NH}_2$  becomes  $\text{NH}_3$ , which is ammonia gas. Ammonia evolution takes place in a "basic" (a high pH) environment. Hydrated lime's composition is "basic", therefore contributing to the evolution of ammonia. The terms whitewash and, less commonly, milk of lime are used to refer to a suspension of hydrated lime in water.

Hydrated Lime is used in cleaning and the disinfecting process, it can be used to control pathogens (and reduce fly problems). According to current research, lime is effective at controlling the many poultry diseases.

HYDRATED LIME can be extremely dangerous. Dust inhaled or exposed to the eyes can cause severe burning of the eyes and mucous membranes, Hydrated Lime will have the following HAZARD WARNING: Avoid contact with eyes or skin. Avoid breathing lime dust. Always wear NIOSH-approved eye goggles when handling lime & Wear protective clothing..... This Lime is caustic to organic matter and destroys debris in addition to pathogens. Lime can burn the hoof & footpads of birds if it is left on the ground or floor. It is important to

take animals out of an area before treating the area with lime. When using lime, wear personal protective equipment.

If in a field situation, you would be using Ag lime or Dolomitic Lime as part of the overall fertility program. When high amounts are needed it is generally recommended to apply at less than 2 tons per acre at a time. High amounts applied can cause issues on the soil surface.

It's recommended to remove animals while being applied. Apply lime based on soil test results.

## Know the Lime product that you are using to avoid any possible problems.

+++++

# 5. Common Hoof Problems

Mary Boyce, DVM, University of Minnesota

There are many different hoof problems that can occur in horses. To reduce hoof problems, follow these recommendations:

Regular trimming or shoeing

Maintain good hoof balance

Maintain the correct hoof pastern angle, break over, and medial-lateral balance

Give heel support if needed

Use appropriate shoeing for different weather and footing conditions

Use appropriate treatment if disease process occurs.

Poor shoeing or trimming. Long toes can result in strain on flexor tendons, the navicular bone, and collapsed heels. If the horse is "too upright" it can cause trauma to the coffin bone. An imbalanced hoof can cause stress on the collateral ligaments and joints.

Hoof cracks. Horizontal cracks or blowouts are usually caused by an injury to the coronary band or a blow to the hoof wall. Horizontal cracks or blowouts do not usually cause lameness. Grass cracks are usually seen in long, unshod horses, and can be corrected with trimming and shoeing. Sand cracks result from injury to the coronary band or white line disease that breaks out at the coronary band. Sand cracks can be a cause of lameness. Treatment for sand cracks includes determining the cause and removing it, floating, and/or fixation or patching. It usually takes nine to twelve months for the hoof to grow out.

Thrush. Thrush is a foul-smelling black exudate usually found around the frog that is associated with wet, soiled conditions. Thrush can invade sensitive tissue and cause lameness. Keeping stalls or barn clean and dry can help eliminate thrush.

Solar abscess. Solar Abscess is an infection in the sole of the hoof that can lead to acute or severe lameness. Solar Abscess can be caused by trauma, bruising, or a foreign body. Treatments include removal of the foreign body (if possible), soaking the hoof in warm water and Epsom salt, and keeping the hoof bandaged, clean and dry.

Hot nail or street nail. A hot nail is a horseshoe nail that is driven into the sensitive structures of the hoof wall. Hot nails will usually cause lameness. Treatments include flushing nail hole with antiseptic, packing the hole or bandaging the foot, and Tetanus booster. A street nail is any foreign object that enters the foot. This is an emergency, and your veterinarian should be called immediately. Treatment depends on what hoof structure is affected.

Laminitis. Laminitis is inflammation of the sensitive laminae. Founder is rotation (coffin bone rotates downward inside hoof capsule) and/or sinking (coffin bone sinks downward) of the coffin bone. There are several causes of laminitis. Treatments include regular shoeing or trimming, maintaining short toes, using heel wedges, and frog and sole support.

Navicular. Disease process involving the navicular bone, bursa, ligamentous, or soft tissue structures. Horses will usually land their toe first due to pain in the heels. Causes of navicular include hereditary predisposition (Quarter Horses and Thoroughbreds), faulty conformation, hoof imbalance, and exercise on hard surfaces. Treatments include shoeing, maintaining a short toe,

elevating the heels and good break over, and pads.

Finally, in the winter, special care should be taken if your horse lives outside or is turned out. If your horse is normally barefoot, leave the shoes off in the winter (horses usually slip less when barefoot). Horses that are prone to sole bruising may need shoes. If your horse is shod through the winter, have snow pads placed under the shoes and small cogs or nails placed at the heels. Winter weather can dry out the hoof wall, so a hoof moisturizer may be needed.

+++++

## 6. Caring for the Older Horse:

### Common Problems and Solutions

Kylee Jo Duberstein, Edward L. Johnson UGA Extension

Horses have relatively long life spans compared to other livestock and companion animals, often living into their late 20s and early 30s. Many horses have productive careers into their 20s. In fact, in many disciplines, horses do not peak until their teenage years. Good nutrition, maintenance and veterinary care allow horses to lead longer and more productive lives. However, as horses age, their needs change and additional care may be required to keep them as healthy as possible.

The older horse can often be cared for and managed well as long as the owner and/or caregiver understands the special needs a horse may have as it ages. It is important to recognize that there is not a predetermined age when an individual horse becomes “old.” Like people, individual horses age at different rates. As caregivers, we can have an effect on some areas of aging, such as dental and hoof care, but little effect or control over others, such as genetics, previous care and previous use.

The key to caring for an older horse is to understand how the horse’s body changes as it ages and how these changes impact the horse’s health requirements. Important areas to consider when caring for the older horse are nutrition, lameness, vision, immune response and hormone changes.

This publication will address changes in the aging horse’s body that impact its requirements, possible ways to meet these requirements and solutions to problems that may occur. It is important to recognize that not all older horses have problems; some are maintained easily without much change in routine. However, some horses begin to have problems as they age and are referred to as geriatric. These horses may require special attention and a change in management.

## Nutrition

Nutritional needs of aging horses will vary greatly between individuals. Some older horses may never need drastic diet modifications, whereas others will require a special diet to help them maintain good health and body condition. In both situations, the goal is to provide adequate nutrition.

## Dental Care

As horses age, it can become harder to meet their nutritional requirements. One reason for this is poor dentition. Proper and routine care of the horse's mouth by a qualified equine dentist will help the horse maximize nutrients from the food he is eating. Horses chew in a circular motion from one side of their mouth to the other. This motion naturally wears away the horse's teeth. Over time, this chewing motion will lead to sharp points developing on the outside of the horse's upper molars and the inside of the horse's lower molars. Regularly keeping the horse's teeth filed down (known as "floating") one or two times per year will improve his chewing ability and digestion.

Some older horses may not even have teeth. When a young horse first develops molars, they are very long and folded into the dental socket in the jaw. The length of the entire tooth is around 5 inches in a young horse, and only a small portion is visible above the gum line. Over time, chewing wears away the tooth, which continues to push upwards above the gum to replace the worn part. This cycle continues throughout the horse's life, but by the time he approaches his 30s, most of the tooth may be worn down to the roots. This leaves older horses with little ability to chew and digest foods they would ordinarily eat. Changing the type of food the horse eats can easily alleviate this problem. Some feed companies make senior horse feeds, which tend to be softer in texture than ordinary horse feeds. Concentrates fed in the form of pelleted feed can be wet down and softened to make a gruel that is easy for the horse to chew. Forage can be provided in the form of hay cubes or pellets (made of either alfalfa or alfalfa/grass mix), which can also be wet down and softened for the horse to chew easily.

In general, reducing the food's particle size and feeding foods that can be wet down and softened will greatly improve any nutritional problem the horse may have due to chewing difficulties. While dentition problems are usually relatively easy to manage, if the horse is not cared for properly (e.g., turned out to pasture with no additional care) it may quickly become emaciated due to an inability to eat the available food.

## Nutrient Absorption

As they age, some horses may become less able to glean nutrients from what they eat due to reduced nutrient absorption, lowered ability to digest fiber and reduced gastrointestinal motility. Some of these problems may be due to intestinal damage from parasites if the horse was not kept on a regular parasite control program throughout its life. Lifelong parasite control is critical in maintaining the horse's health and longevity.

## Feeding Strategies

Regardless of the reason, it is important to provide geriatric horses that are having difficulty maintaining their body condition with highly digestible, high-energy feeds. One commonly used practice is to feed older horses beet pulp in some form. Beet pulp is a highly digestible fiber source. It is sometimes incorporated into commercial feed or can be bought separately to be wet down and fed in addition to grain.

Another way to improve digestibility is to select commercial feeds containing grains that have been processed by crimping, cracking, rolling or steam flaking, which breaks the grain's seed coat so that the horse may better digest it. Supplementing fat may also increase the energy content of the diet since fat is a highly digestible energy source. Commercial feeds are often formulated to contain added fat. Grain mixes without added fat typically contain approximately 3% fat. Many feed companies now market grain mixes with fat contents as high as 14%. If the horse owner does not wish to use one of the commercial feeds formulated with added fat, fat can be top-dressed to the horse's grain. Many feed companies market fat supplements such as stabilized rice bran or extruded pellets with added vegetable oils. Some horse owners also choose to add fat to the horse's diet by pouring some type of vegetable oil over the horse's grain. However, it is critical to not increase the energy content of the diet without also ensuring that other nutrient needs are met. When feeding a commercially formulated feed this is not typically a problem; however, when top dressing the horse's grain with a fat supplement, make sure that other nutrient requirements are also being met.

A horse fed added fat will need less feed to maintain its condition; therefore, protein, vitamin and mineral content should also be increased. Additionally, rice bran supplements that do not have added calcium can cause calcium : phosphorus imbalances in horses on grass forage. Care should also be taken to not feed vitamins and minerals in such excess as to cause toxicities. Fat-soluble vitamins (A, D, E, K) are stored readily in the body and, over time, can lead to toxicities. Excesses in certain minerals can interfere with absorption of other minerals. When adding supplements to the horse's diet, whether it be fat, vitamins or minerals, it is important to be sure that imbalances are not created in other nutrients. The simplest way to do this is to feed concentrates that have been commercially formulated or to feed supplements that have been commercially formulated to match a particular feed.

Before adding supplemental fats, vitamins or minerals to the horse's diet it is important to do a simple blood analysis to ensure that the horse has proper kidney and liver function. Horses with liver dysfunction will not tolerate added fat in the diet. Providing feeds with high protein and /or calcium (e.g., alfalfa, beet pulp) can aggravate the kidneys in horses with kidney disease.

It is also important to feed good quality grain and forage that is free of mold and dust. Moldy, dusty feeds can cause gastrointestinal tract problems such as colic and are generally not easily digestible. Older horses often are more susceptible to respiratory irritation, and feeding dusty feeds will only aggravate these conditions. Horses that suffer from persistent respiratory problems may benefit from having their hay soaked for 15 minutes prior to feeding to control dust. Feeding hay that was cut at the appropriate time is also important. Hay that is too mature when cut has an increased lignin content, and can become indigestible. This hay often appears to have a very high stem content and should be avoided in older horses that already have decreased forage digestion.

### Overweight Horses

Not all older horses are hard keepers. Some will hold their weight easily and may actually become too heavy since they are not exercised as often or as intensely as their younger counterparts. These horses may begin to accumulate fat at a rate that may be detrimental to their health. Horses that become too heavy may stress their bones and joints and may aggravate any existing lameness conditions such as arthritis and navicular syndrome. Therefore, it is important to ensure that the horse is meeting all of its nutritional requirements without gaining an excessive amount of weight. Allowing ample turnout time for horses that are not in a routine riding program will provide them with some exercise and allow them to maintain muscle tone and a healthy body condition.

### Metabolic Disorders

Some horses may develop metabolic conditions as they age, which can lead to unhealthy obesity. This is commonly caused by imbalances in hormone levels (such as insulin) that cause diseases such as Cushing's, insulin resistance and metabolic syndrome. These conditions often develop in older horses (about 20 years old). Insulin resistance and metabolic syndrome in horses are similar to diabetes mellitus in humans. Horses with Cushing's produce excessive amounts of cortisol from their adrenal glands. Cortisol has many functions in the body, including maintaining blood pressure, modifying the body's inflammatory immune response, regulating the function of nervous tissue, regulating muscle tone and connective tissue repair, and regulating the breakdown of carbohydrates, proteins and fats by controlling insulin levels in the body. The excessive amount of cortisol produced in horses with Cushing's disease leads to many problems, including recurring laminitis, muscle atrophy, susceptibility to disease, slow wound healing, excessive hair growth along with failure to shed, and lethargy. If any of the above symptoms, including excessive obesity, are



noted, a veterinarian should be contacted as soon as possible. Cushing's can be controlled with medication if it is caught early. Horses with metabolic disorders can be managed with routine hoof care, vaccinations, de-worming and a specialized diet. A routine exercise program may help prevent disease onset or improve the lives of individuals already suffering from metabolic disorders.

A common management practice for horses with Cushing's disease, insulin resistance and/or metabolic syndrome is to feed them a diet with a low glycemic response. The glycemic response of feeds is a representative number to convey how much of a glucose and insulin spike a particular feed elicits in the blood, and is strongly correlated to the amount of sugar and starch present in the feed. Feeds that are high in sugar and starch will cause blood glucose levels to rise sharply and quickly, followed by a spike in insulin levels. For horses with metabolic conditions such as Cushing's, this spike in insulin is particularly undesirable. Feeding a diet with a lower starch content (i.e., feeding more highly digestible fiber and fat) will keep insulin levels in the bloodstream stabilized. Additionally, hay can be soaked in water for several hours and the water drained off to further remove sugars from the horse's diet.

It is important to be sure that the horse's diet meets all of its protein, mineral and vitamin requirements as these nutrients are critical for muscle tone and tissue repair, wound healing, and prevention of infection and illness. Horses with Cushing's, insulin resistance and metabolic syndrome can be managed by feeding a diet that meets their nutritional requirements but has little starch and sugar – for example, good quality forage, highly digestible fiber sources (e.g., unmolassed sugar beet pulp, soy hulls), fat supplementation if needed to maintain weight, and protein, vitamins and minerals in the form of a ration balancer.

## Lameness

One of the most common soundness problems seen in older horses is arthritis, which can begin at any stage of life but often worsens with age. Although it is uncertain whether arthritis can be prevented, it can often be managed with considerable success.

There are numerous feed supplements marketed for use in improving joint function. These supplements may contain chondroitin sulfate, glucosamines, hyaluronic acid, msm, yucca or a combination of these ingredients. Use of joint supplements may have beneficial effects on some horses that already have arthritis and other forms of joint disease; however, very little scientific research has been done in vivo to test these products. Equine joint supplements are not FDA approved and therefore are not regulated. Because of this, there is often considerable variability in these products. Some horses do appear to respond favorably to supplementation while others do not respond at all. For horses that do not improve with the use of joint supplements, another option is injectable joint products that typically contain substances thought to replace joint fluid or improve

cartilage regeneration. Examples of products that may be found in injectable form include polysulfated glycosaminoglycans or sodium hyaluronate (trade names Adequan and Legend). A veterinarian may recommend injecting a particularly bothersome joint with steroids and/or hyaluronic acid for direct and more immediate relief. These injections may improve joint flexion and reduce pain within days, and benefits may last for months or years before having to be repeated.

Other potential lameness-causing conditions for older horses are problems related directly to the feet, often caused by lack of proper care or lack of adequate hoof horn growth. As horses get ridden or worked less, their hooves often become neglected. Many older horses don't grow high-quality horn because of lack of use and a decline in their ability to extract key nutrients from feeds. Poor hoof quality and imbalanced hooves can exacerbate arthritic conditions and lead to soft tissue injuries. While an older horse may not be working and performing like he once did, routine proper hoof care is still essential to maintain health and soundness.

### Summary

The problems and solutions discussed in this article are meant to serve as guidelines for managing an aging horse. Horses vary greatly from individual to individual, and there are no hard and fast rules for caring for horses, geriatric or otherwise. Understanding the underlying reasons for problems that might arise in aging horses will help both owners and caregivers to make educated management decisions. It is important to recognize that while older horses may not be as productive or useful as they might have been in their youth, routine veterinary, dental and hoof care, along with proper nutrition and parasite control, are critical to keep these horses healthy for the remainder of their lives.

+++++

## 7. Colic Examinations

Erin Malone, DVM, University of Minnesota

When your veterinarian arrives to examine a colic, she/he will try to determine the severity and the general type of colic. It is very unusual to be able to diagnose the exact cause of colic, but she/he may be able to determine if it is more likely to be an impaction or gas colic, or if it may involve damaged bowel or toxemia. A routine physical examination will help determine the horse's cardiovascular status and identify signs of shock or toxemia. If the horse is very uncomfortable, the

veterinarian may give a short acting analgesic/tranquilizer to aid in performing the examination. Depending upon the situation, the veterinarian may then pass a nasogastric tube (from the nostril to the stomach), perform a rectal examination and/or evaluate the abdominal fluid by doing a "belly tap". The nasogastric tube is passed to make sure there is no fluid build-up in the stomach. If there is fluid, this can be a life-saving measure (to prevent rupture of the stomach). If there is minimal fluid, the tube can be used to give mineral oil to the horse to lubricate any impaction. It may also be used to give water to the horse if it seems to be dehydrated. This has the added benefit of stimulating gut motility. A rectal examination allows the veterinarian to palpate structures in the caudal half of the abdomen. Sometimes an impaction can actually be felt. A rectal examination is always somewhat risky, because of the potential for tearing the rectum. Finally, if your veterinarian is concerned about infection in the abdominal cavity or about damage to the intestines, she/he may stick a needle in the abdomen and try to collect fluid for analysis. This test is most useful for determining if the horse needs surgery and is often not performed unless there is a problem getting the horse to a referral institution or if the colic persists. If you have taken your horse to an equine hospital, other bloodwork and tests (such as ultrasound and radiographs) may also be performed.

Some people believe that it is important to take a horses temperature if they think the horse is in colic. The general thought is that if the horse has a temperature, then they shouldn't be walked, if he doesn't, then its ok to walk him. However, this is not really the case. Some types of colic are associated with fevers and it is okay to walk the horse to keep him comfortable while waiting for the veterinarian to arrive. However, diseases such as pleuritis, tying up, and laminitis may show signs similar to colic and walking is contraindicated. Pleuritis is inflammation of the chest cavity (pleurisy). It can be detected by pain when the ribs are pressed. Tying up is due to muscle trauma. Muscles (especially in the hindquarters) may look swollen and feel firm. Laminitis or founder leads to heat in the foot and the horse is often reluctant to pick up either foot since it hurts to stand on the opposite limb. In general, if the horse feels better walking, do it. If walking seems to make the horse worse or if you detect signs of rib pain, foot pain, or muscle pain, then stop.

+++++

## 8. POULTRY

All Poultry Owners, Large and Small, Must Register for Farm ID Number

<https://growingsmallfarms.ces.ncsu.edu/2015/07/all-poultry-owners-large-and-small-must-register-for-farm-id-number/>

What is avian influenza?

<http://www.ncagr.gov/avianflu/>

Selling Eggs, Meat, and Poultry in North Carolina:

What Farmers Need to Know. <http://chatham.ces.ncsu.edu/growingsmallfarms/meatandeggs.html>.

This web page explains what producers must do to get eggs ready for sale, and explains the exemption for small-scale producers. It also

describes the regs governing the transport and sale of meat and poultry and explains how to get registered as a meat handler. It also describes

the on-farm processing exemption for small-scale producers.

And speaking of processing, the web page also lists several meat and poultry processors in the state.

Avian Influenza

Factsheet - <http://www.ncagr.gov/vet/FactSheets/AvianInfluenza.htm>

Poultry in the Cooperative Extension Service

Backyard Flocks & Eggs - Small Flock Management Resources

<http://poultry.ces.ncsu.edu/backyard-flocks-eggs/>

Farms: Grower Resource List - Pastured Poultry

<http://www.ces.ncsu.edu/chatham/ag/SustAg/poultrylist.html>

Small Scale Poultry Housing - Virginia Coop. Ext.

[https://pubs.ext.vt.edu/2902/2902-1092/2902-1092\\_pdf.pdf](https://pubs.ext.vt.edu/2902/2902-1092/2902-1092_pdf.pdf)

Designs for Small Poultry Structures - <http://pubs.ext.vt.edu/category/poultry.html>

Poultry Construction Plans - <http://msucares.com/pubs/plans/books/poultry.html>

Pastured Poultry Nutrition and Forages

[file:///rcfile01.rcnc.local/users\\$/bchase/My%20Documents/Downloads/pasturedpoultrynutrition.pdf](file:///rcfile01.rcnc.local/users$/bchase/My%20Documents/Downloads/pasturedpoultrynutrition.pdf)

NC Ag Review (Bird Sources) <http://www.ncagr.com/paffairs/AgReview/class.htm>

Management Guide for the Backyard Flock

<http://extension.uga.edu/publications/detail.cfm?number=C969>

\*Sexing of day-old chicks

[http://msucares.com/poultry/management/poultry\\_sexing.html](http://msucares.com/poultry/management/poultry_sexing.html)

Frequently Asked Questions

<http://msucares.com/poultry/management/index.html#faq>

Livestock – Penn State <http://extension.psu.edu/business/ag-alternatives/livestock>

The NC CES Homepage has a great search engine at <http://www.ces.ncsu.edu/>  
search under free range chickens or poultry

or also go to E-answers at <http://e-answers.adec.edu/>

Virginia Tech Search engine at <http://www.pubs.ext.vt.edu/index.html>

OK State University (Site with Breeds) <http://www.ansi.okstate.edu/breeds/poultry/>

FeatherSite - The Poultry Page <http://www.feathersite.com/Poultry/BRKPoultryPage.html>

### Poultry Sources

Ridgeway Hatcheries 1800-323-3825, [www.ridgewayhatchery.com](http://www.ridgewayhatchery.com)

Mt Hatcheries 1800-451-5603 [www.mthealthy.com](http://www.mthealthy.com)

Stromberg's 1-800-720-1134 <http://www.strombergschickens.com/>

McMurray Hatchery 1-800-456-3280 <http://www.mcmurrayhatchery.com/>

Ideal Poultry Breeding Farms 254-697-6677 <http://www.ideal-poultry.com/>

Egg Cartons – [www.eggcartons.com](http://www.eggcartons.com)

Townline Hatcheries – 616-772-6514

Hoovers Hatcheries 1800-247-7014 [www.hoovershatchery.com](http://www.hoovershatchery.com)

But always check NC Ag Review classifieds for birds for sale.

<http://www.ncagr.com/paffairs/AgReview/class.htm>

+++++

## **9. NC Horse Judging Short Course** Oct 24-25

The 2015 NC Horse Judging Short Course will be held Oct 24-25th in Raleigh, NC.

Information about the course can be found at the following link: <https://equinehusbandry.ces.ncsu.edu/equinehusbandry-horse-judging-short-course/>

Cost for this highly informative 2-day course (complete with NC Horse Judging Manual) is \$75. Entries must be post-marked by Oct 3rd to avoid a late fee of \$25.

At this time entries are low. If we do not have 10 entries by October 15th, this course will be cancelled!

+++++

# **10. HorseFriends 10th Anniversary Celebration Fall Fun Show and Costume Contest**

**HorseFriends, a therapeutic horseback riding program dedicated to helping individuals with special needs, will host a Fall Fun Show and Costume Contest at their riding facilities at Flintrock Farm in Reidsville on Saturday, October 24, 2015 from 9:00 a.m. to 5:00 p.m.**

**The show will include English, Western and Costume riding classes - \$10 per class or \$60 for the day.**

**Not a rider, but looking for something fun to do with the family? Come out and watch the competition, enjoy hamburgers and hot dogs, FREE Anniversary Cake, a photo booth with Cristin Kyle of Stable Relationships, a 50/50 raffle, Trivia Contests, hourly drawings for prizes, t-shirts, sweatshirts and books for sale, and learn more about HorseFriends Therapeutic Riding Program.**

**With 100 plus horses and hundreds of acres, Flintrock Farm is one of the largest horse facilities in North Carolina. At Flintrock Farm, HorseFriends is able to use a lighted indoor arena for classes, as well as an indoor activities area. HorseFriends is FREE to participants and their siblings, and they are**

celebrating their 10th anniversary as a ministry. Donations to HorseFriends Therapeutic Riding Program go directly to the needs of the horses and operation of the program.

### About HorseFriends

HorseFriends is a Christian ministry whose mission is to help individuals with disabilities to experience joy and strength through horses, regardless of participants' individual beliefs. We provide therapeutic horseback riding not only to those with disabilities, but their siblings as well. Our goal at HorseFriends is to design a specific curriculum, horse interactions and a support format to address the difficulties and offer solutions to our participants' life challenges. We are registered with the IRS as a 501(c)3 non-profit corporation, and all gifts are tax-deductible.([www.horsefriendsnc.org](http://www.horsefriendsnc.org))

Contact: Lisa Bunch

HorseFriends 336-339-6565 / [lisa@horsefriendsnc.org](mailto:lisa@horsefriendsnc.org)

+++++

## 11. DON'T FORGET - Soil Testing Charging A Fee During Peak Season

NCDA&CS Agronomic Division

- Peak-season Soil Testing Fee

There is a \$4 fee charged for all soil samples processed by the NCDA&CS Agronomic Division during its busiest season: December through March. (No fee April through November).



So if you are planning to take soil test, go ahead and get them sent in to avoid the fee.

**GET YOUR SOIL SAMPLES TAKEN & SENT IN!**

+++++

## **12. HAY**

**PLEASE LET ME KNOW IF YOU HAVE HAY FOR SALE!**

A Hay Directory is maintained by the North Carolina Cooperative Extension Service for the Rockingham County and 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!**

+++++

## **13. Swap Shop**

- Adult looking to rent a place to live on a horse farm, will help with

horses, stalls, etc. Please email at: [dvsnt1@hotmail.com](mailto:dvsnt1@hotmail.com)

Denise cell: 321-506-2038

+++++

## 14. Take A Load Off

I need your clean Jokes, so please send em to me! -

### Chickens & The Frog

A librarian was quietly working when three chickens walked in and jumped on to the counter eyed her and said BUK BUK BUK Not sure she was sane she gave the chickens three books and they left. An hour later in walked the chickens again jumped onto the counter, returned the books they had taken earlier and said BUK BUK BUK Now convinced she was out of her mind she gave them three books, they took one each and left. This time she decided to follow them. She followed them down to the local pond and stood horrified as they threw the books into the water. All of a sudden they flew back out of the pond and a frog stuck its head up saying RREDIT RREDIT RREDIT!

I always need more help with the jokes!

+++++  
+++++  
+++++

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!!!!**

Please remember our **Troops** who are serving our

**Country (and their families), those who have come home with wounds, and the families that paid the ultimate sacrifice.**

**HAVE A GREAT WEEKEND!**

--  
**Ben Chase**

**Rockingham and Guilford County Extension Agent  
Agriculture & Livestock**

**North Carolina State University**

**North Carolina Cooperative Extension,**

**525 NC 65, Suite 200, Reidsville, NC 27320**

**(336) 342-8235    800-666-3625    Fax: 336-342-8242**

**Email : [ben\\_chase@ncsu.edu](mailto:ben_chase@ncsu.edu)**

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