**The Importance of Water and Hay to Horses in the Winter**
Eileen A. Coite, REINS Coordinating Agent

With the brisk temperatures and frequent fluctuations of our North Carolina winter weather, it is always good to remember how critical these changes can be to our equine companions. If you’ve been in the horse business long enough, you have probably encountered a horse experiencing colic due to temperature changes. Keeping horses warm and hydrated in the winter, as well as in good body condition can be a challenge, especially during weeks like this one. Key factors in achieving this are providing shelter from the wind and rain, along with plenty of clean water and good hay. Here are some things to consider this week and as the winter progresses.

Maintaining ample water intake is the most critical part of ensuring the health of your horse during cold weather. The horse prefers a water temperature of 45-65°F. Under normal conditions, the horse will consume one gallon of water per 100 pounds of body weight per day. An 1100 pound horse will consume 10-12 gallons of water daily. As the water temperature decreases, horses will consume less water. An 1100 pound horse may consume as little as 1-3 gallons of water per day when water temperature is 32°F. Low water intake is directly related to the increased incidence of impaction colic. Water intake can be encouraged by increasing the amount of forage being fed prior to a drop in temperature. The resulting increase of dry matter encourages the horse to drink more water. Concentrate mashes can also be fed during the actual cold period when water temperature is below 45°F.
The Importance of Water and Hay to Horses in the Winter Continued …

Feeding 2-3 gallons of hot water mixed in a mash with a textured or pelleted concentrate mix will provide additional water intake. To avoid gas colic, allow for the mash to sit for 15 minutes. This will permit the feed to expand prior to feeding. If possible, offer 10 gallons of water (at 65°F or warmer) twice daily. Break and remove ice from water tubs, making certain to provide water that is available free choice.

Providing good quality, nutritious hay is another critical aspect to winter management of horses. This is the time of year where hay supplies sometimes get thin, so planning ahead and purchasing enough hay to get through the winter is critical. When temperatures get below freezing, winter pasture growth reduces tremendously, and hay is our only forage option. Horses, along with other grazing animals, need hay to stay warm. Hay and other forages are digested in the cecum and large intestine of the horse, and this digestion process is the primary source of regulating body temperature. Many horses can maintain their weight through the winter with just an increase in hay consumption. Those that are harder to keep weight on or older will often need a gradual increase of grain as well. Horses should consume at least 1.5% of their body weight in hay during cold periods. For example, a mature 1000 pound horse should consume 15-18 pounds per day of hay to meet these temperature needs in cold weather. It’s important to pay close attention to body condition during these periods, and actually “feel” your horse. A long hair coat or winter blanket can often cover up thin spots on a horse, so be sure to examine your horse closely and get a feel for where your horse’s ribs, backbone, etc. are and how much fat or “cover” there is over and around them. If a horse given plenty of hay is having trouble maintaining weight, increasing fat to the concentrate diet may also be helpful. Many “high fat” feeds are on the market just for this purpose.

These are just a few tips to help you and your horses get through these brisk winter days. For more information or advice, don’t hesitate to contact the Extension office or one of your REINS volunteers.

North Carolina’s Unwanted Horse: Reality or Myth?
Mike Yoder, Extension Horse Specialist, NCSU

In Sept. 2010, representatives of the North Carolina horse industry met to discuss the issue of the unwanted horse. The symposium was designed to better understand the severity of the unwanted horse issue in North Carolina and to identify policy and procedural action items to address the issue. Dr. Tom Ray spoke on behalf of the State Veterinarian’s Office, while Dr. Jim Hamilton presented the perspective of the private veterinarian. A panel discussion, led by Julie Walls discussed the issue from the standpoint of equine rescue organizations, while a panel of animal control officers led by Ernie Wilkinson addressed unwanted horse issues faced by county animal control agencies. The number of equine auctions in North Carolina has declined.

Dr. Robert Coleman, Professor of Equine Sciences at the University of Kentucky, and a speaker representing the American Horse Council concerning the unwanted horse, addressed attendees during the lunch break. Dr. Coleman noted that the number of unwanted horses is truly a concern with approximately 198,000 horses either sent to slaughter, considered unadoptable or otherwise caught up in the Bureau of Land Management Wild Horse and Burro Program in 2007-2008. Dr. Coleman further stated that 52 percent of the BLM annual budget is used to care for
North Carolina’s Unwanted Horse: Reality or Myth? Continued

Horses that have been removed from federal lands, leaving less and less for other aspects of the program. According to Dr. Coleman, there are four keys to solving the unwanted horse issue and all four will need to be utilized to adequately address the issue:

- Horse owner education needs to be expanded.
- Must increase the ability of rescue/retirement organizations.
- Must re-open equine slaughter plants.
- Must increase euthanasia and disposal options for horse owners.

Throughout the day a number of facts were introduced that shed light on the problem of the unwanted horse in North Carolina. The following points begin to define the severity of the problem: The number of horse sales in North Carolina has declined substantially and the number of no-sales has increased. For horses in the southeast the slaughter market is non-existent. Dr. Hamilton reported that in the past two years his clinic has euthanized more horses than they did in the previous ten years. Animal control is handling twice the number of horses they did just two years ago.

Many stated that horse owners, animal control officers, and equine rescue organizations all would benefit from additional educational programming.

As a result, some counties are having to build larger facilities to address the issue. Equine rescue organizations are operating at full capacity and are running out of adoption options.

These points strongly support the hypothesis that North Carolina does have a rather serious problem with unwanted horses. In recognition of this, symposium participants participated in focus groups, brainstorming possible solutions to the issue. Many stated that horse owners, animal control officers, and equine rescue organizations all would benefit from additional educational programming. It was also suggested that the education of magistrates and attorneys should be a priority. Other action points included the introduction of castration clinics to encourage responsible ownership and identification of alternative methods of euthanasia and disposal that are more cost effective for horse owners. Participants agreed that the networking accomplished through the symposium was critical and that collaboration between animal control agencies, equine rescue organizations, and veterinarians was a crucial first step to controlling the problem of the unwanted horse.

Are You Overstocked?
Emily Herring, Extension Agent Pender County

Being a Livestock Agent I have heard this question several times, “I’ve got 10 acres of pastures, how many cows can I have?” and I have also heard “I’ve got 3 horses and 1.5 acres of pasture, why can’t I grow any grass?” Do you know the answers to these questions? Both of these questions have to deal with carrying capacity. The answers to these questions could be very simple or complicated; it just depends on a combination of different factors. Carrying capacity is defined as the stocking rate that achieves a targeted level of animal or economic performance over a defined period of time without causing deterioration of the pasture ecosystem. Stocking rate is defined as the number of animals stocked per acre of grazing land in a management unit for a defined period of time. Carrying capacity depends on several factors including- soil productivity, rainfall, and management ability of the landowner. If a horse owner has pasture land that is very sandy, then in general the land is not the most productive soil type available for growing all types of grasses. Sandy soil does not have the capability of holding moisture because of the lack of clay in the soil and the size of the particles of the sand. This is a factor that is out of the horse owner’s hand, but is a
Are You Overstocked?  Continued

deciding factor when determining pasture grasses to plant and management schemes for your farm. For example, a sandy soil would be able to grow a warm season grass like bermuda or bahiagrass with proper management, but would not be able to grow fescue. Therefore as a manager you could have summer grasses for grazing and would have to feed hay in the winter and/or overseed with rye-grass or a small grain for supplemental grazing. These things should be taken into consideration when deciding stocking rates. How do you know if you are overstocked? The grass you planted has disappeared, for no obvious reason, there is a good chance you may be overstocked.

Lets go back to the discussion on stocking rate. If Horse Owner A and Horse Owner B both have the same amount of acres of bermuda pasture, with the same number of horses, on the same type of soil, and Horse Owner A is able to graze more horses per acre than the other with a healthy stand of bermuda year after year, what is causing this? The planning process of establishing pasture in the beginning has a huge impact on carrying capacity. Horse Owner A could be taking soil samples yearly and applying the proper amount of nutrients and lime needed to help his/her bermuda-bahiagrass grow more efficiently. Horse Owner A could have his/her pasture land broken up into different fields for the use of rotational grazing with his mares and Horse Owner B allows the horses to graze the same pasture without rotation for the entire season.

It is recommended for horse owners to incorporate a dry lot into their forage management plan. A dry lot can help tremendously with management of pastures by allowing the pasture a ‘rest.’ This is very important for horse owners with small acreage or even for horse owners who have easy keepers. Knowing what animals will be on the pasture, what stage of production they are in, and how you manage them on the pasture are all important factors to remember. Each of these will affect the capability of the pasture land to hold a certain number of animals. For help with determining your carrying capacity and stocking rate for your situation please contact your county Livestock Agent for assistance.

Horse Promotion Referendum

On March 15th, 2011, the horse owners of our state will have the opportunity to renew the Horse Promotion Referendum for three years.

Here is what the referendum provides for the North Carolina horse community:

- Additional funding for youth programs
- Expansion of adult equine education programs in more counties across the state
- Trails availability and protection of our access to horse trails
- Effective equine research programs
- Better representation for horse welfare interests in local, state and federal legislative bodies
- Extensive marketing programs to make the public more aware of the benefits of horse ownership and the impact of the horse industry on the North Carolina economy
- Promotion of fair and firm enforcement of laws controlling horse and tack theft, interstate transport of horses, and humane treatment of all equines
- Improved community awareness of Equine Infectious Anemia and other threats to our horses well-being

$1.80 is the estimated average cost per horse per year for this voluntary assessment. The Referendum will assess each bag of feed purchased at 5¢ per bag or $2 per ton of feed purchased. Any resident of NC, nine years or older, who owns or leases an equine is eligible to vote.

Don’t forget to vote Tuesday, March 15th, 2011 at your local County Cooperative Extension Office.
Remember those two words, ALWAYS.

As her neck swelled even more, it was obviously standing perfectly still and had to be forced to move. Morning with the treatment having no effect. She seemed normal. Friday morning "Mandy" was off line is, it didn't have to happen. If I had been told about the danger of Clostridial Myositis, "Mandy" would not have suffered and come close to losing her life. "Banamine" can be given orally, just as effective. Think before you administer any drugs, and ALWAYS check with your veterinarian first.
Kids Corner: Dressing for the Occasion

Tucked away in this word-search puzzle are 20 items that English and Western riders need to outfit themselves from head to toe. See if you can find and circle them all. It may be a little tricky, as the words are printed forward, backward, up, down, and diagonally. (Answers on pg 7)

S H I R T S L I S B T
J A C K E T B L M R E E
Y E T V S S V O E E I M
P O O A B Q G E W B T L
T L J O F Y C Z C L S E
G W O A R H F V H N E H
E T D Y E R E L A F F R
S I H S B S E E P E R S
W U P G T R J K S R A T
S R U P S T E K O D C O
D D R O L O B D Z H S C
G Q S N O S T E T S C K
BELT CHAPS JACKET SPURS
BOLO CHOKER JEANS STETSON
BOOTS DERBY JODHPURS STOCK
Bowler GLOVES SCARF TIE
BREECHES HELMET SHIRT VEST

Calendar of Events

- **Feb. 12th** - District 4-H Horse Bowl Contest in Mount Olive
- **Feb. 15th at 6:30 pm** - Weed control in Equine Pastures
  Webinar at Cooperative Extension, Room 105
- **February 26th 8:00 am to 1:00 pm** - Carolina Riders 4-H Tack Sale Fundraiser - Onslow County Multipurpose Complex (see page 8 for more information)
- **March 15th** - Horse Industry Referendum please come by at vote at the Cooperative Extension office, for an absentee ballot call Kim at (919) 731-1520
- **March 15th at 6:30 pm** - Trailer Safety and State Motor Vehicle Regulations at Cooperative Extension, room 105
- **March 18th - 20th, Bill Scott Cow Working Clinic**, Elm City for more information call Jana at (910) 385-5209 or by email at jana@janalake.com

For more information, please call Kim at (919) 731-1520
REINS Volunteers by County

(Volunteers may be contacted via Extension Agents)

Johnston County:
- Julie Walls
- Will Walls
- Roger Davis

Wayne County:
- Lynn Lepley
- Vivian Rowe
- Cindy Wheaton
- Vickie Yelverton

Wilson County:
- Carol Kyles
- Kathy Moore

Onslow County:
- Emily Adams Walton

Extension Agent Contact information

Greene County:  Eve Honeycutt, Agricultural Agent   (252) 527-2191  eve_honeycutt@ncsu.edu
Johnston County:  Dan Wells, Agricultural Agent   (919) 989-5380  dan_wells@ncsu.edu
Wayne County:  Eileen Coite, REINS Region 13 Coordinating Agent, Agricultural Agent   (919) 731-1520  eileen_coite@ncsu.edu
Wilson County:  Walter Earle, County Extension Director (252) 237-0111  walter_earle@ncsu.edu
Pender County:  Emily Herring, Agricultural Agent   (910) 259-1235  emily_herring@ncsu.edu

Hoof Prints is a quarterly newsletter written by a team of experienced and certified equine professionals for persons interested in equine information in Southeastern North Carolina. For more information on material and events presented in this newsletter, contact your local agent and Cooperative Extension office at:

Eileen A. Coite
Extension Agent
Agriculture—Livestock
North Carolina Cooperative Extension
Wayne County Center
PO Box 68
Goldsboro, NC 27533-0068

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**Carolina Riders 4H**

![Saddle and Bridle](image)

**Tack Sale**

**Fundraiser**

*Just in time for show season or hitting the trail!*

Come help support the Carolina Riders 4H Club!

*When:* February 26, 2011

*8am -1pm*

*Where:* Onslow County Multipurpose Complex

4024 Richlands Hwy, Jacksonville, NC 28540

(Indoor facility- rain or shine)

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New & Gently Used Saddles, Blankets, Bridles, Bits, Grooming Supplies & Much, Much More!!!!

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or call 910-330-9953 or 910-330-7407

Space is limited so sign up now!! First Come Basis