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Important Information

Horse Meetings
There will be two Extension Horse Ellu-
minate Webcasts in Bladen County. Horse owners will be able to come to the office and hear presentations from a webcast. A meeting will be on January 19th (register by January 15th) at 7 pm on Vaccination and Deworming Programs. Another meeting will be on February 16th (register by February 15th) at 7 pm. Call the Bladen Office to register.

N.C. Pork Council Conference
The N.C. Pork Conference will be held in conjunction with the Southern Farm Show this year. On February 4th at 1 pm, there will be a State of the Industry Presentation and Panel Discussion at the Martin Building. The awards breakfast and annual meeting will be held on February 5th. See note about the van going under Southern Farm Show.

N.C. Cattlemen’s Conference
The annual conference will be held in Hickory on February 19 and 20, 2010.

N.C. Meat Goat Association
A field day will be held in Raleigh at the Vet School on Saturday, February 27th. Registration fee is $10 per person.

Southern Farm Show
The Farm Show will be held at the N.C. State Fairgrounds in Raleigh on February 3rd - 5th. There will be a van leaving from the Bladen Office on the 4th and 5th at 8 am both days. Call the office at 862-4591 to reserve your space.

Cape Fear Regional Cattle Conference
The first annual Cape Fear Regional Cattle Conference will be held on January 14th at the Robeson County Extension Center located at 455 Caton Road in Lumberton. There is a $5 charge for the conference. Vendors will have booths at the conference. Please call your Extension Office to register for the meeting by January 11th.

3:30 pm Registration
4:00 pm Welcome by Michelle Shooter, Extension Agent, Robeson County
4:05 pm North Carolina Cattlemen’s Association Update by Bryan Blinson, Executive Director, N.C. Cattlemen’s Association
4:20 pm Replacement Heifer Development and Marketing by Dr. Gary Hansen, NCSU Livestock Extension Specialist
5:15 pm Nutritional Management to Improve Returns to Cow/Calf Producers by Dr. Matt Poore, NCSU Beef Specialist
6:00 pm Dinner and visit vendors
7:00 pm Herd Health and Animal Welfare Update by Dr. Mark Alley, NCSU Veterinary School and Extension Vet

Disclaimer - The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University nor discrimination against similar products or services not mentioned.
Air Emissions Info - EPCRA/CERCLA Reporting
In 2009, a rule affecting large concentrated animal feeding operations (CAFOs) came out. Large CAFOs are defined as having 2,500 or more swine, each weighing 55 pounds or more (sow or finishing) or 10,000 or more swine, weighing less than 55 pounds (nursery). If you are below these animal numbers, the Air Emissions reporting does not apply to your farm at this time.

In January 2009, farms above the threshold who did not participate in the Environmental Protection Agency (EPA) Air Consent Agreement were required to call local and state emergency management. Also within 30 days of making the phone calls, producers were required to submit a written report to both local and state emergency management. An EPA fact sheet says “On the first anniversary date of the initial written notification, you need to reassess and confirm the accuracy of your calculations to your SERC (state emergency response commission) and the LEPC (local emergency planning committee) in writing.” The N. C. Pork Council has developed a letter that producers can use for making this report. Call your Extension office to request the letter.

High Freeboard Levels in Lagoons
Due to the recent heavy rainfalls, some lagoon levels may be higher than required for structural stability. Farms in this situation must complete a plan of action (POA) to describe how the lagoon level will be reduced. There are two scenarios with different plans of action. A cover letter should be submitted with the plan. The POA’s are five (5) day drawdown and thirty (30) day drawdown.

Plan of Action for High Freeboard - 5 Day Drawdown
When farms are above the level required to be maintained for structural stability, the owner is required to submit a plan of action within 24 hours to lower and maintain the lagoon level at a point below that needed for both structural stability and the 25-year, 24-hour rainfall event.

Plan of Action for High Freeboard - 30 Day Drawdown
When facilities are identified below the level required to be maintained for structural stability, but not adequate to also retain the 25-year, 24-hours rainfall event, the producer is required to submit a plan of action within 48 hours to lower and maintain the lagoon level to a point below that needed for both structural stability and the 25-year, 24-hours rainfall event.

10 Hr. Animal Waste Operators Certification Training
A proper waste management plan and waste application system are vital parts of an animal operation. To become a certified operator, one must complete an approved training course on the operation of animal waste management systems, pass the exam, and pay the required fees.

There will be a training class on January 27 and 28, 2010 at the Bladen County Extension Center starting at 10 am. Call (910) 862-4591 to register by January 22nd. The cost is $5 for the class or $30 for class and a manual. The manuals changed in 2007, so we recommend purchasing a new manual. The class will be limited to 30 people, so sign up early. The 2010 exam dates are March 11, June 10, September 9, and November 10.

Forage Management Tips

**JANUARY**
* If winter pasture is limited, feed hay in the pasture or allow cows to graze every other day. The priority for limited pasture is (1) calves by creep grazing, (2) stockers, (3) nursing cows, and (4) dry cows.
* Winter annual pastures that were planted on a prepared seedbed may be severely damaged if animals trample on them during wet periods. Allow calves first priority to these high-quality annual pastures.
* Sample hay and send to NCDA lab for analysis.
* Determine animal feed requirements for the year and outline a 12 month forage production plan and use plan to meet the needs.

**FEBRUARY**
* Apply nitrogen to cool-season grasses to stimulate early spring growth.
* Lime fields that will be prepared for spring plants.
* Locate sources of hybrid bermudagrass sprigs for planting next month.
* Burn warm-season grass residues in late February or early March.
* Get herbicide sprayers ready to control weeds in dormant bermudagrass fields.
Grazing and grazing some type of winter annual grass such as rye, ryegrass, oats or wheat is a very common practice in beef cattle operations. Stocker operations in particular often depend on these types of forages to add pounds to growing calves through the winter. In fall calving herds the nutrition provided by winter annual pastures helps meet the increased nutritional demands of cows nursing calves. For spring calving herds or other animals like horses, utilizing winter forages can significantly extend the grazing season and decrease the amount of hay that needs to be purchased to get through the winter.

There are a few rules of thumb we can follow to get the most use out of winter annuals. Begin grazing when the grass reaches 6-8 inches tall. The small grains, such as rye, tend to put on more growth in the fall than ryegrass, so if you have both, you would probably need to graze the small grains first. While grazing too early can cause stand damage and seriously reduce later growth, letting the plant get too mature is not good, either. As the plant matures Total Digestible Nutrients (TDN) and Crude Protein decrease and fiber content increases, reducing the feed value of the forage. It is also important to avoid over-grazing winter annuals. Keep a close eye on pastures and rotate the animals to fresh grass when the grass is grazed down to 3 inches.

To get the most efficient use from winter forages, use cross-fences to limit a large number of animals onto a small area for a short period of time. When animals are given access to a large pasture, they tend to spot graze. Spot grazing is a condition where animals eat the shortest, most tender growth and leave the rest to grow more mature and less palatable. By using cross fences to concentrate animals on a small area you force them to consume more of the total forage in that area, making much better use of the grass you have worked to grow.

Using cross-fencing to improve the use efficiency of these grasses doesn’t require a very complex or expensive set up. If you already have electric fence around the field or pasture it can be as simple as hooking in a poly-wire cross fence supported on step-in posts. With such a fence you can start at one end of the field and move the poly-wire fence back when the grass in the grazing area is used up to give the animals access to fresh grass. Giving the herd access to one to three days worth of grass at a time is a good benchmark. Remember to keep adequate water, salt and mineral supplements available. Even this simple technique will greatly increase the amount of grass that is grazed rather than trampled and wasted and will extend the number of days a stand of grass will feed a herd. Such a system is also very useful for maximizing the utilization of perennial grasses like fescue and bermudagrass. Your Extension agent can provide more information and ideas about using cross fencing in your operation and can let you know about demonstrations of these types of systems being held in your area.

Good soil fertility is critical to getting maximum growth out of any grass. Always fertilize and lime according to soil test recommendations. Depending on your soil type, soil samples should be collected every three to four years. If your operation uses an animal manure source such as poultry litter or lagoon waste it is important to follow your waste management plan in applying these nutrients. If you are using commercial fertilizer you can apply a complete fertilizer with all the necessary Phosphorous and Potassium at planting time along with 60 to 80 pounds per acre of Nitrogen. Then top-dress with split applications of 60 pounds per acre of Nitrogen every 45 to 60 days from late January through March.

With the significant rainfalls we have received this fall, many broadleaf weeds such as henbit, buttercup, curly dock and others can be a problem. Most of these weeds are more difficult to control once they have begun flowering, so keep an eye on your fields to identify problems early. Accurate identification of weeds is the first step in controlling them, and your Extension agent can assist you or provide a weed identification guide. Consult your Extension agent or the NC Agricultural Chemicals Manual for recommendations to control weeds and always follow the label directions of any pesticide.
Breeding season is, or soon will be, upon us. So many times cattlemen get so caught up worrying about their females during the breeding season that the most important variable of your breeding season, your herd bull, gets forgotten about. Let’s take a minute to take a look at some common issues that arise when thinking about our breeding bulls.

**How many females can I run my bull to without compromising my breeding rates?**

This is an age-old dilemma for cow-calf producers. If you are being progressive and purchasing good growthy (hence expensive) bulls, you want to start getting your money back from your investment as quickly as possible. On the other hand, no matter how good a bull is, or more specifically how good his calves are, if you overload a bull with too many cows you’ll never get enough growth out of what calves you have to make up for open cows.

For young bulls, (15-18) months old, generally 10-15 heifers or young cows will be all you want to run him to in his first breeding season. This may be a little conservative for some cattlemen, but I always would rather err on the side of caution with a young bull than overworking him right out of the gate.

Once a bull gets two years old or older, you can usually run a cow per month of the bull’s age (a 25 month old bull to 25 cows) until you reach the mid-thirty range. Thirty five to forty cows is really asking a lot out of a bull, especially for a controlled 60-90 days breeding season. Mature bulls in good condition and with a strong libido can probably handle this many cows, but they will certainly work some weight off doing so.

**I just got a young bull back from the sale, how do I handle him the first year?**

Young bulls that are purchased from a bull sale usually have not missed many meals prior to getting to your farm. This is especially true of bulls from traditional feed tests. In some ways this extra weight they are carrying around is to their benefit, because a young bull will loose weight during the breeding season, no matter what you do. However, make sure you transition this bull nutritionally in the first few weeks you have him home. There are countless horror stories of highly conditioned bulls getting ruined after leaving from a sale where they were getting fed a high protein, high energy diet to be thrown into a pasture with just low quality hay and then expected to chase cows all day. Highly conditioned (which is a nice way of saying fat) bulls need to be “fed down” for a few weeks after they get to the farm. Feed a lower protein feed for a couple of weeks while his body gets acclimated to having less energy and feed. Also, keep in mind these bulls may have never seen a bale of bermudagrass hay in their life, so getting him used to your hay before he starts working is also critical. Finally, keep an eye on the bull during the breeding season. If he drops more than 2 body condition scores, it may be better to swap him out for another bull and let him rest while you put some weight back on him. Better to have the bull serviceable for the long run than ruin him the first breeding season.

**My bull is sick/injured. When do I need to worry about?**

That would depend on what is wrong with him. If it is a physical injury, such as a leg or a foot problem, he very well may get over it on his own with rest. Keep in mind, rest does not mean in a pasture with 30 cycling females, or even worse with other bulls who are fighting for dominance over the hurt bull. His ability to recover will of course depend on the severity of the injury and also where it occurs. A broken hoof will almost always heal well as new, while a severe hip or hock injury will often never heal to the point that the bull is mobile enough to cover a large group of cows.

The other thing to deal with is sickness, such as a respiratory or bacterial infection. The worst fear with this occurrence is a high fever, which will result in the bull being sterile for as long as two months after he recovers. This is also true of a severe heat stress, such as a serious bullfight during the middle of summer.

Finally, with either an injury or a severe sickness, make sure that the bull’s sex drive, or libido, returns once the bull is healthy. A young bull that has been severely injured may never get the desire to breed back even if he gets healthy again.

While many things can go wrong during a breeding season, common sense and observation can overcome a lot of problems.
What Horse Owners Should Know about Feed Supplements: Part I
By: Elena Eller, Livestock Extension Agent with NC Cooperative Extension in Moore County

In the 1980’s the medical community adopted the term “nutraceutical” to define a substance that was orally adminis-
tered and had the characteristics of both a nutrient and a pharmaceutical. Although this was initially a very small list of
products, the nutraceutical market has rapidly grown into a multi-billion dollar industry, a portion of which is focused
on animal health. The inclusion of nutraceuticals and feed
supplements into nutritional programs for horses and into
veterinary clinical practice has been controversial, as veteri-
narians and horse owners alike struggle with questions of
safety and efficacy. Nevertheless, it is clear that the inclu-
sion of these substances is becoming increasingly important
in the treatment of equine illnesses, as both complementary
and alternative treatments to traditional drug therapies.

Importantly, there are no laws or regulations which specifi-
cally define a nutraceutical. However, definitions given by
the Federal Food, Drug and Cosmetic Act (FDCA) identify
what a nutraceutical is not: a drug, a food, or a food additive
(examples of food additives include preservatives and pellet-
ing agents). Because of this, they are not regulated by the
FDA per se, but the Center for Veterinary Medicine for the
FDA prohibits veterinary nutraceuticals (as well as sub-
stances we commonly call feed supplements) from making
expressed or implied claims to the treatment or prevention of
disease without being classified as an unapproved drug. In
spite of this, there are many products in feed stores and on
the internet (and likely many in your feed room) intended for
animal use that claim, or at least imply, to prevent or treat
health problems. So what is really the difference between a
drug and a nutraceutical? Nutraceuticals and feed supple-
ments do not fall under the category of drugs simply because
they have not undergone the lengthy and costly approval
process required by the FDA to prove both the safety and the
efficacy of their intended use. Thus it is very important to be
aware and make informed decisions.

There are benefits for nutraceutical manufacturers (and pos-
sibly for the consumer as well) to be gained by avoiding hav-
ing products classified as a drug. Less pre-market testing
means less cost incurred by the manufacturer and conse-
quently less cost passed down to the consumer, it also means
less time before the product is available on the market. The
down side is that this lack of regulation has led to problems
with product quality, safety, and efficacy. Further com-
ounding the issue, these products are available over-the-
counter, and are often used without professional supervision.
The old adage “above all else, do no harm” should be of ut-
most importance when considering the use of these products.
Consumers often assume nutraceuticals are safe based on
packaging and labeling, which often resembles that of ap-
proved drugs. Assumptions of safety also stem from the
product being labeled “natural” or something naturally oc-
curring in the body. Unfortunately, being natural is com-
pletely unrelated to product safety. There are many supple-
ments on the market that contain herbs and plant derived in-
gredients. It is important to remember that plants contain
chemicals, such as certain alkaloids, that may be toxic to
horses, even if they are safe for other species. Additionally,
some nutrients that are perfectly safe when supplied at ap-
propriate levels in the diet, can cause severe nutrient imbal-
ances and toxicity if given in large doses.

Without regulations controlling the sale and manufacture of
nutraceuticals, quality (purity, stability and consistency) of
the product also comes into question. Lack of good manu-
ufacturing practices has lead to products in which the actual
contents fail to match the label. For example, several re-
search studies of common joint supplements have reported
consistent mislabeling in which the active ingredients con-
tained in the product range from 0% to over 150% of what
the label claims.

There are measures that can be taken to select the best source
for a particular product. First, the label on the product
should contain a list of ingredients (using common names),
the intended use of the product, and detailed instruction for
administration. In addition, the manufacturer should be will-
ning to provide information regarding manufacturing proce-
dures, whether or not they participate in programs that offer
verification of quality assurance, and if the product has un-
dergone safety testing. Absence of information from the
product label or reluctance on the part of the manufacturer to
share any and all aspects of their manufacturing process
should discourage you from using a particular product. A
few states actually require specific safety studies be con-
ducted and may also have more stringent label laws for prod-
ucts accepted for sale and distribution in the local feed
stores. If products are certified as Generally Recognized as
Safe or “GRAS” in states such as Texas, the product has at
least undergone safety testing by an independent laboratory.
If you have questions about incorporating a product into your
horse’s nutritional program, contact an equine nutritionist,
your local extension agent, or a veterinarian.
Have you ever heard your goat friends talking about how they have to stomach tube feed their goats? You may never have to do this to a goat, but it is good to be familiar with the procedure in case it is ever needed. If you stick your finger in the kid’s mouth and it doesn’t suckle your finger, it will need to be tube-fed. Sometimes kids are in the birth canal too long and get depleted of oxygen or have another blood problem and are born without their natural instincts. They may not be able to suckle to get enough colostrum and milk. If you are able to tube feed a kid with this condition, they will usually improve over time. If the kid has the suckle reflex, it is much easier to give them a bottle to get the proper nutrients in them than it is to tube feed. Kids need colostrum within a few hours after birth. After 12 hours, the colostrum is not able to be used for immunity purposes. If a kid is cold, it needs to be warmed up before tube feeding begins. This ensures the colostrum is absorbed properly.

The first thing you want to do after figuring out for sure you need to tube feed is to measure the tube on the outside of the kid. You’ll want to have an opened-ended soft flexible tube that is approximately 20 inches long and six millimeters in diameter. Measure the tube on the outside of the kid from its mouth to its last rib. You can make a mark at the tube’s end by the mouth so you know how far to insert the tube. A tube that has been accidentally inserted into the trachea cannot be inserted as far as the mark. Hold the goat in your lap between your knees facing away from you while you are sitting down with its back feet on the floor. Next, insert the tube all the way into the esophagus until you reach the previously marked line. The goat should easily swallow the tube. If not, you might have placed it in the trachea (this is rare) and will need to remove it and start again. A properly placed tube means the goat can still bleat and cry, but should not gag or cough. Next insert a 60 cc dose syringe on the end of the tube. Pull the plunger back and if it is difficult to pull back, you have the tube in the correct location. If you can pull the plunger easily, you have the tube in the wrong place (the lungs) because the natural air in the lungs can be easily pulled into the syringe.

Next, remove the plunger, put the syringe on the end of the tube, and slowly pour in the warmed colostrum, milk, or electrolytes. Never use the plunger to plunge milk in because you can rupture the stomach. Try to prevent any air from entering the tube. After you are finished, detach the syringe and pinch the tube near the top and then slowly remove the tube. Pinching the tube prevents you from accidentally getting any milk into the lungs. Continue tube feeding the kid every few hours for several hours or days until it is able to suckle a bottle or nurse from the doe. Several small meals of two or three ounces are better than a few huge meals. The kid should receive at least 10 percent of its own weight in colostrum. For a 10 pound kid, this would be 1 lb which is 16 ounces. Once the tube feeding is complete, you will want to clean the equipment very well to prevent the spreading of any disease. You can wash the tube and syringe with warm soapy water, then mix one ounce of bleach with 21 ounces of water and soak them for two minutes. After removing them, you will want to rinse very well, let them dry, and then store them in a sanitary location ready for the next use.

On even rarer occasions, you might need to tube an adult goat. This would only occur when it is unable to eat and is very sick or weak. The risk of putting a tube in the wrong place (trachea) in an adult goat is less than with kids. You will need several feet of a bigger .5 inch diameter tube for adult goats and someone to help you hold the goat steady. You will need to perform the same procedure as you did for the kid goat while using a small funnel instead of a syringe. You will also tube feed the adult goat while it is standing up. You will need to give it about half a gallon of electrolytes or other nutrients several times a day until it is able to eat on its own again. If you need help learning how to tube feed goats, please call your local Extension agent for help. Tube feeding is a very valuable management tool that may someday save your goat’s life.
**BQA Feedstuff and Commodity Source Good Management Practices**

*By: Michelle M. Shooter, Livestock Extension Agent with N.C. Cooperative Extension in Robeson County from information found on the National Cattlemen’s Beef Association’s BQA website http://www.bqa.org*

**Beef Quality Assurance (BQA)**

The purpose of the BQA program is to identify and avoid areas in beef production operations where defects in quality can occur. The program asks everyone involved with beef production to follow the government guidelines for product use and to use common sense, reasonable management skills, and accepted scientific knowledge to avoid product defects at the consumer level. The goal of the BQA program is to assure the consumer that all cattle shipped from a beef operation are healthy, wholesome and safe, and their management has met all government and industry standards. There are many BQA Good Management Practices (GMP’s), this article is going to discuss recommended feedstuff and commodity source handling GMP’s.

**Monitoring Feedstuffs**

Beef operations purchasing outside feeds should maintain a sampling program to test for quality specifications of feedstuffs. This could include moisture, protein, foreign material, etc. A good business practice is to require all products to be accompanied by an invoice, which includes the date, amount and signatures of both the person who delivered the product and the person who received the product. Grain suppliers should understand that protectants can have withdrawal times. Most good suppliers have a quality control testing program of their own. Bonded suppliers often test for polychlorinated biphenyls, chlorinated hydrocarbons, organophosphates, pesticides and herbicides, heavy metals, and microbes (*Salmonella*).

It is neither efficient nor economically feasible to test every load of grain or forage for contaminants. However, a logical alternative is to obtain and store a representative sample of each batch of newly purchased feed. Commonly, a thorough investigation of suspected feed related problems is not possible because no representative sample is available for testing. If feed sampling and storage is done on a routine basis and a suspected feed-related problem occurs, samples for appropriate laboratory testing will be available. A recommended sampling method for purchased grains, supplements or complete feeds is to randomly sample each batch of feed in five to ten locations and pool the individual samples into a larger sample of two to five pounds. The pooled sample should be placed in a paper bag or small cardboard box, labeled and frozen. Dry samples can be labeled and kept in a dry area. Higher moisture samples should be frozen. A feed tag should be attached to the sample for future reference if needed.

Forage samples should also be collected and stored. If multiple bales of hay are purchased, representative samples should be obtained from several bales and mixed together prior to storage. Core samples are preferred over "grab" samples, particularly from large bales of hay. Most hay samples can be placed in a labeled paper bag and kept in a clean, dry area.

**High Risk Feeds**

High-risk feeds are single loads or batches that will be fed to cattle over a prolonged period of time, thereby exposing large numbers of cattle. Examples of high-risk feeds include fats, rendered by-products, plant by-products, supplements, and additives. Typically, these feedstuffs are only a small percent of the total diet and are very expensive to test. Suppliers should provide quality specifications with the product. Find dependable suppliers and stay with them.

**Potential Feed Toxins**

It is important that beef operation managers and staff know about the relative toxicities of chemicals to livestock so that highly toxic chemicals, such as soil insecticides, can be handled and stored properly. All chemicals should be treated as potential hazards and should be stored away from feed storage and mixing areas. If a feed-related poisoning is suspected, it is critical to contact a diagnostic laboratory for assistance in confirming the suspicion.

Naturally occurring mycotoxins also pose a threat to quality beef production in the beef operation. Mycotoxins can be found in grains and forages and, if present in sufficient concentrations, can cause reduced feed consumption, poor production and adverse health effects. Mycotoxins can be produced in feedstuffs prior to harvesting or during storage. Some feedstuffs come from processes that actually concentrate toxins. For example, protein based toxins survive fermentation during ethanol production and by-products feedstuffs from these facilities will have higher levels of protein based toxins than in the grain used to make the ethanol. Commonly found mycotoxins include aflatoxin, vomitoxin, zearalenone and fumonisins in grain, primarily corn and slaframine in red clover. Ergot alkaloids can be found in either grain or grass hays.

For more information about feedstuff and commodity source GMP’s or the BQA Program contact your Livestock Extension Agent.
Feeding hay is a necessary part of livestock production. Most articles discuss ways to minimize hay wastage, but the location of hay feeding is also important. Cattle linger in hay feeding locations and spend more time in these areas. This article will discuss the pros and cons of feeding in one area versus moving the feeding areas around.

**Feeding in one area**

Feeding hay in one area or centralized feeding is usually a convenient location that is easy to access. Hay may be stored near the feeding location. Feeding in one area minimizes the amount of land that is killed due to the feeding. Some problems with feeding in one place are muddy conditions, increased weed problems, potential animal health problems, nutrient runoff and soil compaction and ruts in the field.

Some producers may place hay feeders on concrete or a gravel foundation because cattle usually waste less when they have a solid footing. Another recommendation is to feed the lowest quality hay first to allow the wasted hay to form a foundation for further feeding.

**Frequently moving the feeding area**

Farms that frequently move the feeding area have a more uniform manure spread across the entire field(s). This improves soil fertility and can decrease fertilizer needs. Decentralized feeding sites decrease the potential for animal health problems and nutrient runoff. Moving hay feeding areas around the farm also minimizes the damage to any one area of the pasture.

**Strip graze fields**

Strip grazing stockpiled fescue or winter annuals will give the best distribution of manure and the best environment for the cattle. Also the fresh pasture will be higher in feed value for the animals.

**General Feeding Recommendations**

Give enough feed for a one day supply for the entire group of animals. If possible, unroll hay to allow all animals to have equal access to the hay. If you don’t unroll hay, make sure all animals have access to the hay and are able to eat enough for their daily requirements. Watch for the round bale syndrome where the least aggressive cattle do not get access to the hay and therefore don’t eat enough.

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**North Carolina Forage and Grasslands Council Winter Conference Series**

There will be three stops for the winter conference series. The conferences will be held in Nash County on January 19th, Union County on January 20th and at the Mountain Horticultural Crops Extension Center on January 21st. The theme is Efficiently Managing Grazing Systems for Cattle, Equine and Wildlife Grazing. The same program will be given at all locations. The tradeshow starts at 1 pm and the program is from 1:45 - 7:30 pm. Registration before January 10th is $15 for members and $20 for non-members. Registration after January 10th is $20 for members and $25 for non-members. Call your Extension Agent for a copy of the flier and registration form.

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**2009-2010 Extension Horse Short Course and Clinic Series**

Offered by: North Carolina State University

Short course and clinic brochure available at www.cals.ncsu.edu/horse-husbandry/>

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<td>January 30-31, 2010</td>
<td><strong>NC/VA Horse Volunteer Leader Conference</strong></td>
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<td>Guilford County Extension Office, Greensboro, NC</td>
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<tr>
<td>February 6, 2010</td>
<td><strong>Youth Horse Judging Team Training Clinic</strong></td>
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<td>Martin Building, NC State Fairgrounds, Raleigh</td>
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<td>March 12-13, 2010</td>
<td><strong>NCSU Equine Hoof Care and Shoing Short Course</strong></td>
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