

Livestock News

Cumberland County Center

November 2015

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For any meeting in this newsletter, persons with disabilities and persons with limited English proficiency may request accommodations to participate by contacting the Extension Office where the meeting will be held by phone, email, or in person at least 7 days prior to the event.

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Wildlife and Water Quality Workshop on November 17th

from 5:00 pm to 8:30 pm in the Powell Melvin Ag Center at 450 Smith Circle in Elizabethtown. Topics include black bears, bobwhite quail, management techniques and ways of getting assistance for managing your property. We will also be learning about the MBGro Initiative and receive updates on several topics pertinent to our area. Supper is provided and 1.5 hours of OIC credits will be given. Please call Benjy Strope at 910-874-5562 to preregister or by emailing benjy.strope@ncwildlife.org before November 10th.

Peak-season Soil Testing Fee starts November 25

NCDA will be charging a \$4 fee for all soil samples processed by the lab starting November 25th until March 31st. Samples must be at the LAB in RALEIGH on November 25 by 6 pm to not have a fee. Samples received before Nov. 25 or after March 31 will be processed without a fee.

Eastern Carolina Cattlemen's Conference

The conference is Tuesday, December 1 at the Sampson County Agri-Exposition Center located at 414 Warsaw Road in Clinton. Preregistration is \$20 and on-site is \$25. This year the conference will start at 12:30 pm with registration and the trade show. Topics include rumen microbiology and Bermudagrass management and research.

Cape Fear Regional Cattle Conference

The seventh annual conference will be held on February 2nd at the Southeastern N.C. Agricultural Events Center in Lumberton. The conference starts at 4:30 pm and costs \$5 - pay at the door. Speakers and topics include Dr. Harrison Dudley, NCSU Vet School and a panel on marketing. The program includes a meal and time to visit the vendors. Call your Extension Office by January 26th to register.

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Animal Waste Management News

CONTINUING EDUCATION CLASSES



Date	Location	Time	Register by calling
November 4	Robeson County	9am (6 hours)	910-671-3276
November 10	Cumberland County	9am (6 hours)	910-321-6860
November 17	Bladen County	5 pm-8 pm (1.5 hrs)	910-874-5562
November 19	Wayne County	9 am (6 hours)	919-731-1525 by Nov. 12
December 1	Duplin County	9 am (6 hours)	910-296-2143 (\$10 meal)
December 15	Bladen County	9 am (6 hours)	910-862-4591
January 15	Anson County	9 am (6 hours)	704-694-2915

Initial 10-hour Animal Waste Operator Classes (OIC):

- ♦ Bladen County (Elizabethtown) - January 21 & 22 (January 28 & 29 are snow dates) starting at 10 am. Contact the Bladen Extension Office at 910-862-4591 to sign up. Cost for the class and manual is \$35.

Bermudagrass Animal Waste Application Extension Information from NCDENR memo from October 8:

As a result of the nearly two weeks of rainfall at the end of September and early October, we have received numerous requests this week for extensions on the application window for Bermuda crops. The application window for most Bermuda fields ended on September 30. After consultation with an agronomist, the Division is allowing an extension of the Bermuda application window until October 20. Please note the following conditions related to the extension:

1. This extension applies only to Bermuda crops with an application window that expired on September 30, 2015.
2. The owner of the animal operation must have the Waste Utilization Plan (WUP) amended by a Technical Specialist to reflect the extended application window. The owner must keep this temporary amendment with the WUP for review during the farm's annual inspection.

3. The application of waste during this extended period shall not exceed the specified PAN rates for each field.
4. The extended application window must end no later than October 20, 2015 and is valid for this year only.

What this means for your farm: If you meet the requirements listed above, you can apply animal waste toward the bermudagrass crop balance through October 20, rather than applying that balance toward your winter overseed during that time period, saving PAN for your winter overseed. Contact your local Extension Agent or a technical specialist for assistance.

End of the Year Reminders:

- 1) Your \$10 renewal fees are due December 31, 2015 in order to keep your animal waste certification valid. If you do not receive an invoice for your dues, you are still expected to pay them. Call DWR (formerly called DWQ) to request an invoice at 919.807.6353.
- 2) Sludge surveys must be done each year and calibrations on irrigation equipment must be done once every other year. Soil testing must be done on animal waste fields once every three years. Soil samples received November 25, 2015-March 31, 2016 through NCDA & CS will be considered peak season and will cost \$4/sample.

Hay Directory

North Carolina Department of Agriculture's Hay Alert is at <http://www.agr.state.nc.us/hayalert/>. Producers can call the Hay Alert at 1-866-506-6222. It lists people selling hay or looking for hay to buy. It is free to list your hay.

Forage Management Tips

From Production and Utilization of Pastures and Forages in North Carolina

November

- Do not graze cool season perennial pastures until growth reaches 6 to 8 inches.
- Separate lactating and dry cows and give the lactating cows the best quality pastures and hay.
- Winter annual pastures planted in September may be

responsive to a nitrogen application (30 - 50 lbs/acre).

- Test forages before winter feeding begins.

December

- Limit the grazing of winter pastures by feeding hay or restricting acres available to animals.
- Feed hay stored outside before hay that is stored inside.

Livestock, Forage, & Trees = Silvopasture

By: Brian Parrish, Agriculture Extension Agent with N.C. Cooperative Extension in Harnett County

I have to admit that I was skeptical about silvopasture, which basically combines trees, livestock, and forages into a single system on one site. I attended a silvopasture training in Pender County several years ago and I was amazed by the amount of fescue grass growing under a couple hundred acres of loblolly pine trees. This silvopasture looked really well, and if curb appeal improves house values, I would assume pasture appeal could also improve farm values.

Silvopasture can be a way for landowners to diversify income sources. A possible win-win situation providing annual income from grazing as well as long term profits for fast growing, high value saw-logs. The farm owner mentioned that the shade from the pine trees extended the forage (fescue) growing season and also improved the comfort levels and weight gains for summer grazing animals. The farm owner also mentioned that this was a good place to stockpile (store fescue for later winter grazing). He mentioned that the trees provided very good shelter during high winds, rain, and snow. The canopy is usually managed at 25 to 45 percent cover for warm season grasses and 40 to 60 percent cover for cool season grasses. Thinning is typically done every five to seven years or as needed. The farm owner estimates that it costed him about \$200 per acre to establish his silvopasture. This may seem like a lot per acre to some, but I could see hundreds of round bales of hay equivalent in forage under his trees. I know that some of the larger cattle farms in Harnett County can easily feed 1,000 or more round hay bales during the winter. Winter

hay costs are one of the biggest expenses for cattle producers in our area of NC. My point is that it does not take many of these round bales to cost \$200. The added benefit of increased plant diversity that helps attract wildlife species including wild turkey, quail, deer, and song birds is another benefit of a silvopasture.

A silvopasture has to be managed properly. Grazing animals should be moved from pasture to pasture in a rotational grazing system. Animals are typically left in a pasture for three to four days. The animals are removed and the forage is then allowed to grow for at least 30 days before grazing again. Animals should not be left in the same area for long periods of time because soil compaction can damage the roots and promote insect and disease damage of the trees. These are just a few of the many basic principles of silvopasture.



Distiller's Grains in Cattle Rations

By: Becky Spearman, Livestock Extension Agent with N.C. Cooperative Extension in Bladen County

It is that time of year that we start thinking about our winter feeding programs for beef cattle. Feed costs are the largest cost associated with feeding livestock and winter feeding is the largest part. Hay is the backbone of the winter feeding program. This year, due to poor quality and tight hay supplies, supplemental feeding needs to be considered. There are many by-products and feeds available. Call your livestock agent for information on possible feeds for your situation. We can do a ration based on your feed ingredients.

There has been renewed interest in distillers grains since the ethanol plant in Raeford has started running again. There is a long history of feeding distillers grains to cattle, but there are still considerations that you need to think about.

There are two milling processes that are associated with corn processing. One is wet milling where corn is soaked in sulfuric acid and the bran is removed and germ taken out and the resulting product is high fructose corn syrup. The by-products of wet milling is corn gluten meal and corn gluten feed. The other is the dry milling process where the bran is scraped off and the remainder (endosperm) is ground and fermented to make ethanol. The by-products from the dry milling process is distiller's grains. Some plants may extract the oil and have modified distiller's grains.

There are 3 main feeds from the distillers grains.

Dried distillers grains (DDG)

- ♦ Commonly used in swine and poultry diets.
- ♦ Use as a regular supplemental feed to replace a corn/soybean meal ration or whole cottonseed.
- ♦ Less concern with long term storage.

Wet distillers grains solubles (WDGS) or wet cake

- ♦ Normally, residual grains are blended with the condensed solubles. The Raeford plant does not have the ability to blend a load to make WDGS.
- ♦ Feed 2% body weight on a dry matter basis.
- ♦ When stockpiling, if it is wet enough it will continue to ferment and not mold. But if not packed and sealed away from oxygen, then it will mold.

Condensed solubles or syrup product

- ♦ Ideally the syrup and wet cake would be used in a total mixed ration.
- ♦ Limit feed by using troughs or licks tanks. Cows should consume no more than 1% of body weight (12 pounds or 1 gallon) and calves should consume 3/4% of body weight (4.5-5 pounds or 1/2 gallon).
- ♦ Include feed grade limestone at the rate of 20 pounds/ton and figure out a way to auger/mix the limestone so it is mixed as much as possible.

- ♦ Make sure animals have good quality minerals and monitor intake. You may need to include dried molasses or sweet feed to keep them eating the minerals.

Issues with any distillers products:

- ♦ All products are high in Phosphorus (P), so there is a greater potential for an imbalance of Calcium to Phosphorus ratio (Ca:P)
- ♦ Can be highly variable in their dry matter and nutrient content. There can be inconsistencies in the product so it is recommended to send a sample off for each batch to know what you are feeding.
- ♦ Sulfur levels can be an issue. The last time the plant was open, sulfur levels were not an issue but they should be monitored. Sulfur toxicity called PEM can occur.
- ♦ Alfatoxin levels may be an issue with any of the by-products. Test the feed so you know the levels. Mature cows can consume higher levels of alfatoxins, but young growing animals cannot. Alfatoxins are also harmful to swine and poultry.

Issues with the wet and syrup products:

- ♦ Perishable - DDG can be kept for several years in a commodity shed. WDGS keeps for 2-3 weeks during the summer and longer in the winter. Cover with plastic and consider putting it on plastic. Research from NCSU shows that ag bags did not do well as a storage option.
- ♦ Hard to handle the product. You will need to consider your feeding and handling program to make sure you are able to mix it correctly. It is difficult to feed the wet cake without a mixer wagon and front end loader.
- ♦ Cattle like to drink/lick the condensed soluble product and can overconsume. It should not be fed free choice. Figure out how to limit feed the product. Some people have put a bolt in the wheel of the lick tank to slow down the cows consumption. You can also limit feed them by restricting their access to the product, which is easier said than done.
- ♦ Odor and flies can be a problem feeding the wet cake. Consider storing outside under a cover to minimize problems. Another option is to store in drums with a plastic liner to keep oxygen from getting to the product.

No matter which feeding program you have, consider:

- ♦ Feeding infrastructure - do you have the infrastructure in place to feed these ingredients? Consider how to set it up so you are getting the most out of the feeds and are able to mix and feed it correctly/efficiently.
- ♦ Get an analysis - this is the only way you know what you are feeding.

Managing Your Horse's Weight

By: Liz Lahti, Livestock Extension Agent with N.C. Cooperative Extension in Cumberland and Hoke Counties

Most people and horse owners don't view equine obesity as a problem, but an overweight horse can have more issues than an underweight horse. Obesity can lead to a number of health concerns including foundering, insulin resistance, joint and bone problems, increased stress on the heart and lungs, decreased reproductive efficiency, and the development of colic-causing lipomas (fat tumors in the abdomen). Admitting that your horse is overweight is the first step in getting it back to a healthy weight.

When determining if a horse is overweight, using the body condition scoring (BCS) system can help. Horses are scored on a scale of 1-9, with 1 being emaciated and 9 being extremely fat. The ideal BCS is a 4-6, ranging from moderately thin (BCS 4) to moderately fleshy (BCS 6). A horse with a BCS of 5 (ideal) is described as having a flat back with no crease or ridge, ribs that aren't visually distinguishable but easily felt, some fat around tail head that's beginning to feel spongy, withers that appear rounded and shoulders and neck that blend smoothly into the body. Anything over a BCS of 6 is cause for concern and measures should be taken to get the horse back to a healthy weight. Indications that the horse is becoming over conditioned are a positive crease is formed down the back, noticeable thickening of the neck, fat being deposited behind shoulders and inner buttocks and having a difficult time feeling the ribs.

Once a BCS has been given, figuring out the horse's weight is the next step. An equine weight tape can be used to determine the weight or by using the following formula: (heart girth inches x heart girth inches) x body length inches/330. Example: (75inches x 75inches) x 81inches/330=1,330 pounds. Having the weight of the horse will allow you to calculate the amount of feed necessary.

Weighing out the feed is the most accurate way to feed your horse. The majority of a horse's diet should always be taken up by forage (hay or pasture). Some overweight horses may not need grain in addition to the hay. Hay should be fed at 1.5% of the horse's ideal body weight. For example: 1,100lb ideal weight x 1.5% = 16.5 lbs of hay. Feeding hay through a slow feed hay net will help slow the horse down and let the hay last longer. A grazing muzzle can also be used to slow hay or pasture in-take. If only feeding hay or pasture, make sure to provide a ration balancer to ensure the horse is getting all the proper vitamins and minerals. If a concentrate is needed, use one that is low in energy, starch, and sugar and has adequate protein levels to prevent muscle loss.

Do not take horse totally off hay/pasture and/or grain. Doing this will cause digestive issues. Slowly reduce the amount of hay/pasture and/or grain over 1-2 weeks until you are feeding

the appropriate amount.

Determining the ideal weight for a horse is difficult due to breed differences affecting bone and musculature. Because of this, aim for a horse that is lean with a BCS of 5. In some instances, a higher BCS may be desired. It has been shown that mares with a BCS of 6 had higher conception rates than mares with a BCS of 5. However, you don't want your horse to get over a BCS of 6 because of the increased risks from the health concerns listed earlier.

Incorporating exercise into your horse's routine can also help with safe and effective weight loss. If pasture turn-out is the only exercise an animal receives, that is better than nothing. Using a grazing muzzle will allow the horse to be turned out but will only be able to eat a limited amount of pasture.

If you are concerned about your horse being overweight and need assistance determining the best way to get it back to a healthy weight, talk with your veterinarian or local Extension agent.

Body Condition Score 8 (Fat)



Body Condition Score 5 (Moderate aka Ideal)



Goat Polio

By: Dan Wells, Livestock Extension Agent with N.C. Cooperative Extension in Johnston County

Goat polio is a disorder that can affect young or mature animals. It is also known as Polioencephalomalacia, or PEM. This is, more simply, damage caused to the brain. It is primarily caused by a deficiency of Vitamin B1, also known as thiamine. In normal situations, the microbes in the rumen of healthy ruminant animals produce thiamine, so it is not usually necessary to add thiamine to ruminant diets. However, in certain situations, thiamine production or utilization in the animal's body can be disrupted, leading to thiamine deficiencies or polio.

Symptoms of polio are widely varied, and can be progressive or advance quickly. Sometimes the first signs may be scours, or the animal may refuse to eat. Once a lack of thiamine starts to affect the brain, more neurological symptoms may be seen, such as convulsions, tremors, staggering, temporary blindness, and increases in temperature, pulse and respiratory rate. More advanced symptoms involve unusual postures; often the back is severely arched and the head is inclined steeply backwards. This is often accompanied by muscular contractions and grinding of the teeth.

This disorder is usually brought on by some sudden change in the rumen environment. Moldy feed, feeding too much grain or too little forage, or poor quality forage, can alter the rumen environment and disrupt microbial populations; not enough "good" microbes and too many "bad" microbes. This causes a drop in thiamine production. These "bad" microbes degrade thiamine before it can be used by the brain, causing death of brain cells and, sometimes, brain swelling. Thiamine is essential in carbohydrate or sugar use by the brain, so the brain is essentially starving in these situations.

Certain other situations can bring on this condition. Stress, such as from weaning, is one. Improper dosing of amprolium, marketed as Corid, can lead to polio. Also, certain antibiotics are thought to increase polio cases. Antibiotics often kill good microbes as well as bad, which can alter the rumen population and decrease thiamine production. Also, high sulfur diets caused by high levels of sulfur in feed or water, can cause symptoms similar to PEM.

Diagnosis of PEM is mainly based on ruling out other diseases like rabies and enterotoxemia. Your veterinarian can help you with diagnosing this disease. Since PEM shares many of the same symptoms of other diseases such as tetanus, pregnancy toxemia, plant poisoning, and listeriosis, it is difficult to diagnose PEM by simply observing an animal. However, lab results can take time, and since treatment is needed immediately, diagnosis is often made based on response to treatment.

Treatment of PEM always involves injectable thiamine, and it is wise to have this product on hand, or at least Vitamin B Complex. A common thiamine product contains 200 mg/ml of thiamine, and the appropriate dose would be ½ ml per 20 pounds of body weight, or 2.5 ml per 100 pounds. Most Vitamin B Complex products contain 100 mg/ml of both thiamine and niacin, another B vitamin. You can use the Vitamin B Complex, but the dose would need to be doubled if the product only contains 100 mg/ml of thiamine. Follow up doses may be necessary for a couple of days at 6 to 12 hour intervals. While you should always involve your veterinarian in any treatment decisions, having a source of thiamine on hand may allow you to initiate treatment without waiting for the vet to arrive with medication. One word of caution, many suppliers stock Vitamin B12, this does not contain thiamine, and would be useless for PEM. Your veterinarian may also prescribe fluid therapy and/or an anti-inflammatory medication to combat the effects of swelling.

Prevention of PEM involves careful management and observation of animals. While the disease is not transmissible from one animal to another, animals in similar situations (same pasture, same feed, same stresses) may experience similar problems. Always provide adequate pasture or forage of good quality. Keep a close eye on animals that have been recently stressed, dewormed, or that have been administered a coccidiostat. Check levels of sulfur in your water or feed. There are many factors that can lead to PEM, but good management can drastically reduce your chances of having to deal with this disease in your flock.

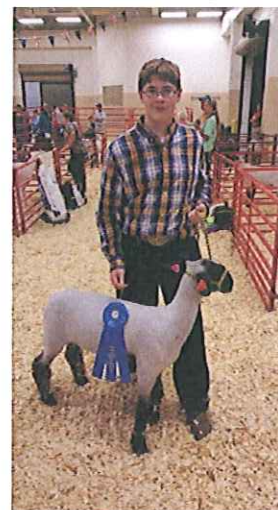
4-H Farm Credit Showmanship Circuit Winners

Results for The 4-H Farm Credit Showmanship Circuit will be announced at the banquet in Cumberland County. These youth accumulated points for their placings in showmanship at a series of shows in the South Central District in North Carolina this fall. If you know any of these young people, please congratulate them for all their hard work and accomplishments. Any youth from any county may now participate. If you have a child, grandchild, or neighbor who may be interested in competing in our Circuit, please call your local Livestock or 4-H Agent for help.

The 4-H Farm Credit Showmanship Circuit is for youth showing lambs, heifers, and goats. There are three divisions for all species. First place in each division will win a belt buckle and a banner ribbon, second place will win a banner ribbon, and third place through fifth place will win a tri-fold ribbon. Cape Fear Farm Credit and Carolina Farm Credit proudly sponsors the Circuit, providing the funding to operate it. Each youth participant receives a Circuit tee shirt. Senior winners for each species are pictured below. Final point rankings for the Circuit are below:

Lamb Showmanship Winners

Junior	Intermediate	Senior
Salem Sifford	Weston Houck	John Faatz
	Jamey Hatley	Kali Mabe
	Madison Sifford	Hanna Carter*
	Noah Beeson and Parker Honeycutt	Jett Shuey
	Antoinette King	Ryan Cline



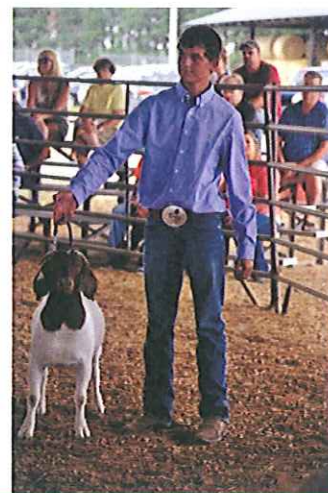
Heifer Showmanship Winners

Junior	Intermediate	Senior
Salem Sifford	Mattie Harward	Cara Smith
Claire Johnson	Marcie Harward	Thomas Smith
	Madison Sifford	Madison Adams
	Shelby Moser	LeAnne Harward
	Laura LeGlue*	Katelyn Batchelor



Meat Goat Showmanship Winners

Junior	Intermediate	Senior
Emily Carson	Payton Smith	Jordan Carroll
Savannah Shepard	Paison Cain*	Rachel Murphy
Fallon Cain	Rylee Schofield*	Coleman Berry
Tanner Wagoner	Cydney Leister	Kali Mabe
Ava Berry	Noah Beeson	Rebecca Carson

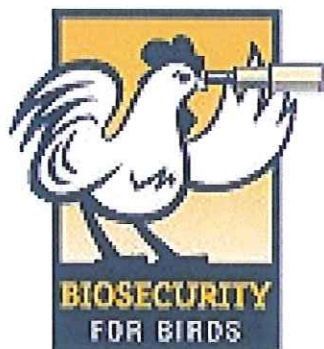


Avian Influenza Update

By: Richard Goforth, Area Poultry Agent with N.C. Cooperative Extension

Well we have made it about half way through the Fall/Winter migration period so far with out any High Path Avian Influenza findings. This is great news but it does not mean we are out of the woods yet and everyone needs to remain vigilant in the AI preparedness. Biosecurity is still the buzz word of the day and is something that should be the first and last consideration in any operation. I have attended and conducted numerous meetings and fielded countless phone calls concerning AI related issues the last few months. I wanted to share a few key points I have learned from all of these meetings, trainings and experiences.

- ♦ Biosecurity is key to stopping the spread of infection from wild birds into commercial and small flocks, and preventing the spread from flock to flock.
- ♦ Growers of all sizes should register their flocks with the NCDA. Commercial growers should make sure they or their integrator has obtained a federal Farm ID #; this serves as registration with the state, and saves a required step if Indemnity is to be paid.
- ♦ In house composting is the preferred and usually the most viable option for AI mortality. If growers want to use burial, they must have a preapproved site. Litter still has to be composted to kill the AI virus before it is spread or moved off farm.
- ♦ Rodents and insects are disease vectors and should be properly controlled, especially if we experience an AI positive case.
- ♦ Indemnity only pays for poultry that are euthanized to control the spread of AI, mortality disposal, disposal of feed and other products that have been contaminated, and cleaning and disinfection of farms. Loss of production due to down time is not covered.
- ♦ Only flocks (regardless of size) that test positive for AI or have a direct epidemiology link to a positive farm (share workers or equipment) will be euthanized.
- ♦ All equipment on the farm will need to be cleaned and disinfected in an outbreak and this will go faster and work better if the equipment is clean or has been regularly cleaned before (it often takes several hours to clean a skid steer loader or tractor with years of built-up grease, oil and dirt).
- ♦ Migratory Water fowl especially (ducks & geese) pose the greatest threat and contact with them and open water sources should be avoided and prevented.
- ♦ North Carolina is better prepared and equipped to deal with an AI outbreak than Minnesota. NC has the advantages of warmer weather, weak winds, rolling hills and trees to reduce the spread of disease.
- ♦ We are all in this together. Biosecurity has an accumulative effect. When everyone does their best, it improves everyone else's.



LOOK
for Signs

REPORT
Sick Birds

PROTECT
Your Birds