

Livestock News

Richmond County Center

July 2013

Inside This Issue

- 1 Important Information
- 2 Animal Waste Mgmt.
- 2 Hay Directories
- 2 Forage Management Tips
- 3 Stopping Poisonous Plants at the Gate!
- 4 New Animal ID Rules Effective in March
- 5 Diatomaceous Earth: A Useful Anthelmintic?
- 6 Garlic and Horses

Contact Us

NC Cooperative Extension
 Richmond County Center
 123 Caroline St.
 PO Box 1358
 Rockingham, NC 28380

(910) 997-8255 Phone
 (910) 997-8257 Fax
 richmond.ces.ncsu.edu

Tiffanee Conrad-Acuña,
 Extension Agent, Livestock
 Tiff_Conrad@ncsu.edu

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.

Distributed in furtherance of the acts of Congress of May 8 and June 30, 1914. North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, veteran status or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

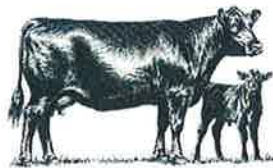
Important Information

Clinton Feeder Calf Sale

The sale will be on September 10th at 7 pm at the Sampson County Livestock Facility. Cattle should be brought to the facility for grading, penning, etc. on September 10th between 7:30 am and 4 pm. For more information or to consign, call Paul Gonzalez at Sampson County Extension at 910-592-7161.

Cattle 101

There will be a Beef Cattle 101 class held in Robeson County this fall. The class is for any new cattle producers or anyone interested in starting a cattle farm. Classes will cover topics including terminology, nutritional requirements, forages, fencing, rotational grazing, reproduction and health management topics. The classes will be held on November 14, 21 and December 5 from 6:30-8:30 pm at the Robeson Extension Office. There will also be farm visits on Saturday, December 7 or 14 (exact date TBD later) to learn production practices that were discussed in class. The cost is \$25 for all the classes. Call your Extension Agent to register for the class. Please note, this class is for new or aspiring cattle farmers.



National Pork Board Statement on Porcine Epidemic Diarrhea Virus (PEDV)

The USDA has confirmed that porcine epidemic diarrhea virus (PEDV) has been identified in the US for the first time through testing at the National Veterinary Services Laboratory. This is not a new virus, nor is it a regulatory/reportable disease. Since PEDV is widespread in many countries, it is not a trade-restricting disease, but rather a production-related disease. PEDV may appear clinically to be the same as transmissible gastroenteritis (TGE) virus with acute diarrhea. Producers will need to work with their integrator or herd veterinarian with if any TGE-like symptoms appear and as always, maintain strict biosecurity protocols based on your integrators recommendations.

- Porcine epidemic diarrhea virus (PEDV) is a virus similar to transmissible gastroenteritis (TGE), another disease only affecting pigs. It is not zoonotic, so therefore it poses no risk to other animals or humans. Also, it poses no risk to food safety.
- PEDV is transmitted via the fecal-oral route and may appear to be the same as transmissible gastroenteritis (TGE) virus with acute diarrhea within 12 to 36 hours of onset. Herd veterinarians remain well versed in managing TGE-like diseases.
- PEDV does not affect pork safety. Pork remains completely safe to eat.

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.

NC State University
 A&T State University
**COOPERATIVE
 EXTENSION**

Empowering People · Providing Solutions

Animal Waste Management

Initial Animal Waste Certification Training

There will be a 10 hour initial training class for type A license on **July 30-31** at the Lenoir County Extension Office from 9:30 am - 4:30 pm both days. Call 252-527-2191 to sign up. The cost is \$30 for a training manual (payable to Lenoir County Cooperative Extension) and \$25 for the test application fee (payable to WPCSOCC). There will be a class in Duplin County on October 1st and 2nd. Call 910-296-2143 to register. The 2013 exams are September 12th and December 12th.

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. For more information or help in completing a POA, call your Extension Office or SWC/NRCS Office.

Storm Warning Permit Information

On October 1, 2009, your general permit changed and some of the permit conditions changed too. Below is the new land application rule in regards to a Hurricane Warning, Tropical Storm Warning or a Flood Watch. If you have any questions, call your Livestock Agent.

Section II 22. Land application of waste is prohibited during precipitation events. The Permittee shall consider pending weather conditions in making the decision to land apply waste and shall document the weather conditions at the time of land application on forms supplied or approved by the Division. Land application of waste shall cease within four (4) hours of the time that the National Weather Service (NWS) issues a Hurricane Warning, Tropical Storm Warning, or a Flood Watch associated with a tropical system including a hurricane, tropical storm or tropical depression for the county in which the facility is located. Watches and warnings are posted at www.weather.gov or by calling your area NWS office.

Hay Directories are below for people selling hay or looking for hay to buy. It is free to list your hay for sale.

1. 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. You can sign up to list your hay on-line.
2. The Southeastern NC Hay Directory is available at <http://onslow.ces.ncsu.edu/files/library/67/HayDirectory.pdf>. Call your Extension Agent to learn how to include your farm on the list.

Forage Management Tips

From Production and Utilization of Pastures and Forages in North Carolina

July

- * Continue a four to six-week schedule of nitrogen applications on summer grasses. Do not delay application because of dry weather unless it has not rained at all since the previous application.
- * Maintain harvesting frequency for quality hay.
- * Hot dry weather can result in nitrate and prussic acid poisoning of animals grazing stunted, highly fertilized summer annuals.
- * Sample soils and apply lime on fields to be planted in the fall.

- * Decide which fescue pastures to stockpile. Apply nitrogen (60 to 80 pounds/acre) around September 1st.

AUGUST

- Apply lime to pastures with pH below 5.8 to be over seeded.
- Start harvesting corn silage in the hard dent state and when the dry matter is between 35% to 40%.
- Fertilize warm-season grasses.
- Fertilize fescue and keep cattle off of the pastures to be stockpiled.

Stopping Poisonous Plants at the Gate!

By: Tyrone Fisher, County Extension Director and Livestock Agent with N.C. Cooperative Extension in Harnett County



The key to preventing problems with poisonous plants is proper identification and avoidance of these plants. There are many resources available, publications and websites, which will assist livestock owners in becoming familiar with plants that can cause problems. Examine pastures, hay fields, roadsides, and fence rows for poi-

sonous plants. In a drought year, or a year when feed is short, take extra precautions, and look for these plants in new areas planned for grazing or haying. For many livestock, under conditions of adequate feed, they will avoid poisonous plants. However, when feed is short, or livestock are hungry, plants normally avoided become a tempting source of feed, thus a potential poisoning problem!

When livestock goes off feed, loses weight, or appears unhealthy, poisonous plants may be the cause. Poisonous plants contain toxic compounds which can injure or kill, even in small doses. Poisonous plants should be considered as the potential cause of disease, especially if the following situations exist:

1. Forage supply in a pasture is sparse due to overgrazing, drought, or poor early season growth.
2. Livestock have recently been moved into a new pasture.
3. Livestock have been released into a new pasture when hungry.
4. Herbicides have been recently used to control weeds.
5. Pasture has recently been fertilized with nitrogen.
6. A new forage source (hay or pasture) has been fed.

Some herbicides may increase the palatability of some weeds. Therefore, it is important to read the herbicide label and follow all grazing restrictions. Also, if there are poisonous plants in the pasture, it is best to keep all livestock out until the plants have died or until the grazing restriction has passed.

Other management tips to avoid problems include:

1. Avoid overgrazing pastures.
2. Avoid turning hungry animals into new pastures.
3. Learn to identify poisonous plants.
4. Fence off areas in pastures where poisonous plants occur.
5. Control and/or manage weeds.
6. Follow herbicide grazing restrictions.
7. Supply adequate amounts of clean, fresh water at all times.
8. Consult your Cooperative Extension Agent and/or veterinarian to correctly identify and treat a suspected poisoning.

References: Plants Poisonous or Harmful to Horses in North Central United States

Some examples of poison plants:



Acorns



BlackCherry



Boxwoods

New Animal ID Rules Effective in March

Reprinted by permission from Jessica Anderson, Extension Livestock Agent with
N.C. Cooperative Extension in Anson County

Contributed by: Randy Wood, County Extension Director & Livestock Agent with N.C. Cooperative Extension in Scotland

The Federal Government has issued new rules and regulations regarding animal identification when animals are moved out of state effective as of March , 2013. These rules dictate which animals must have official ID to be transported out of state. Below are the most important rules of note to local beef producers. If you have any questions, please contact your local Extension Office or NCDA Vet Division. Please remember that these rules only apply when crossing state lines. If animals are only moved within North Carolina, these rules do not apply.

#1- Feeder calves (18 months of age or younger) are exempt from official ID.

If you have feeder calves and live in Chesterfield County, South Carolina and typically take them to a livestock market in North Carolina you are exempt from official ID tags on each animal as long as they are under 18 months of age.

#2.- Cull cows and bulls going directly to slaughter are exempt.

If you live in North Carolina and take animals for slaughter, old cull cows or bulls to a South Carolina plant, they are exempt from official ID requirements.

#3- All intact males or females, either dairy or beef, moving interstate are under regulations of this law.

They must have:

Official ID

A Health Certificate from a veterinarian listing each animal individually by their ID number.

This is of note to beef producers who may acquire animals from out of state. If purchasing replacement females or bulls at a sale out of state, the breeder should provide the health certificate and the animal should be tagged.

What is official ID for cattle?

NUES (brite) TAGS – These are the metal ear tags popular in the TB days. These are free from the State, contact the NCDA Vet Division for these tags.

BANGs (orange) TAGS

“840” TAGS

“900” Series Manufacturer TAGS- These tags will be phased out by the year 2015.

#4- All cattle of any age used for rodeo, shows, exhibitions, or recreational events must have official ID and health certificates with each animal listed individually.

This includes animals taken out of state for live stock shows. Breed registration numbers will not count as official ID and they must be tagged with one of the four tags listed above.

There are other regulations concerning dairy cows, horses, captive deer, sheep, goats, and swine. For more information or questions, contact your local Extension office or local NCDA Vet Division Tech.



A metal brite tag



An “840” series RFID Tag – With the US Seal

Diatomaceous Earth: A Useful Anthelmintic?

By: Mandy Harris, Extension Livestock Agent with N.C. Cooperative Extension in Cumberland County

Diatomaceous earth (DE), the skeletal remains of single-cell algae, has been advertised as a useful and effective alternative anthelmintic for sheep, goats and other livestock over the years. Diatomaceous earth is a fine, crumbly substance that is used in insulating materials, abrasives, ceramics, as a food additive, in toothpaste, as an anti-caking agent in artificial sweeteners and as a bio-filter. It is said to kill worms by slashing them with blade-like surfaces. Although it has been reported to control internal parasites in organic livestock production, there is very little scientific evidence to support its performance. However, there have not been many studies published regarding the anthelmintic effect of DE.

Iowa State University conducted two trials in 1994 and 1995 to test the efficacy of DE as a natural anthelmintic. In the first trial, twenty-four weanling lambs were put in four different treatment groups. These groups were assigned to different paddocks (clean & infected). The results showed there was no economic value to using DE as there were no deaths and the weight gains among the groups were not statistically different. There were no differences in packed cell volume or hemoglobin and while the fecal egg counts were numerically different (favoring the DE groups), no statistical difference was seen because of the large variability among the groups. The second trial used thirty-two lambs and the trial was longer. The results were similar to the first trial in that no statistical differences were seen in weight gain, blood values, fecal egg counts or GI larval counts.

In 2005, DE was tested in the United Kingdom to determine if it was a good alternative anthelmintic for grazing ruminants (cattle and sheep). In the first trial, eighteen cattle were put into three different groups. Weight gain did not differ between groups and for the most part, fecal egg counts did not differ between the three groups. In the second trial, forty-five ewes were separated into three groups. There were no significant differences between fecal

egg counts in these groups.

North Carolina A&T State University conducted a study in 2009 to determine whether DE was effective on naturally-infected goats (primarily *Haemonchus contortus*, *Eimeria*, and *Trichostrongylus* spp.). Twenty Spanish/Boer does were put randomly in four groups and measured weekly for six weeks for body weight, fecal egg count, packed cell volume, and white and red cell blood count. These goats were kept outside in sheltered pens with concrete floors and fed a concentrate diet. In all groups, increases in fecal egg counts were noted, so there was no evidence DE was an effective anthelmintic.

All of these studies come to the same conclusion: 1) DE does not have an effect on parasite loads as measured by eggs per gram of feces; and 2) DE does not reduce anemia as measured by packed cell volume. There is some speculation that DE may be able to stop the development of worm larvae on pasture, which could help reduce pasture contamination, but additional studies are required to see if DE has any effect on pasture loads. So although some farmers have positive results using DE, there is little research to show that DE has an effect as an anthelmintic.



Garlic and Horses

By: Tiffanee Conrad, Extension Livestock Agent with N.C. Cooperative Extension in Richmond County

Many horse owners have recently been asking about giving their animals herbs or natural supplements, specifically garlic. They have heard that it can help with fly and worm control, pain relief, treatment of infection, and many more issues. The problem with feeding garlic to horses is that horses will willingly consume toxic amounts. Research shows that a toxic amount is more than 0.2 mg/kg of their body weight. This is only .003 ounces in a 1000 lb horse. These amounts have caused Heinz body anemia during times of consumption. Heinz-body anemia is a complicated process. The toxic element in garlic and onions is a chemical called N-propyl disulfide. By altering an enzyme present within the red blood cell, it depletes the cell of a chemical known as phosphate dehydrogenase (PD), whose job is to protect the cell from natural oxidative damage.

When the PD level gets low enough, the hemoglobin in the cell oxidizes and forms a bubble called a Heinz body on the outside of the cell. This Heinz body is distinctive and able to be seen under the microscope. The spleen quickly removes the deformed red cell from the bloodstream. As more and more red cells are prematurely damaged and removed, as happens from consistent poisoning with N-propyl disulfide, horses gradually becomes anemic.

Toxic effects are more gradual but still very dangerous when a lower dose is consumed on a regular basis, resulting in a mild anemia without obvious symptoms. Some cases of Heinz-body anemia occur every year in horses that graze on wild onions or garlic growing in their pastures. Depending on the dose, and the frequency and duration of dosing, there could be low-grade damaging effects, due to red-blood-cell damage that's not enough to cause an emergency situation, but just enough to cause a mild anemia that might not be outwardly evident. It might affect your horse's stamina, energy level, or resistance to disease.

Recovery from anemia may not occur until after 5 weeks following termination of dietary supplementation with garlic. Research further suggests that the

only real benefit of feeding garlic to horses is that it may increase concentrate consumption. Since most horses readily consume plenty of concentrate anyway, there is little reason to add garlic to an animal's diet.

The potential for garlic toxicosis also exists when horses are chronically fed garlic. Animals are not able to digest garlic like people can, which is why a buildup occurs. Symptoms of garlic toxicity include trouble breathing, lethargy, diarrhea, vomiting, an elevated heart rate, an increased respiratory rate, weakness, and collapse.

Most herbs have not been scientifically tested for use in animals. It is therefore unknown if they are safe or even effective. They are also not regulated with the same scrutiny as conventional drugs. Some commonly found supplements fed to horses other than garlic include: Echinace, ginger, ginseng, peppermint leaf, and yucca. Some herbs have drug-like actions that interact with dietary components. Drug-herb interactions are common and caution needs to be taken when implementing natural product usage.

Anytime you are thinking about introducing new supplements or a home remedy treatment for your animals, always consult your veterinarian first. If you need help finding a balanced ration for your horses, please call your local Livestock Agent.

