Livestock News

Richmond County Center — July 2015

Inside This Issue

1 Important Information

2 Regional Chicken Project

2 Forage Management

3 Hay Supplies

4 Hot Weather and Beef Cattle

5 Caprine Arthritis Encephalitis and Ovine Progressive Pneumonia

6 What Does Avian Influenza Mean to Your Farm?

Contact Us

NC Cooperative Extension
Richmond County Center
123 Caroline Street, Ste 100
PO Box 1358
Rockingham, NC 28380
(910) 997-8255 Phone
richmond.ces.ncsu.edu

Tiffanee Conrad
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.

Bladen County Youth Livestock Skillathon Team

Pictured front from the left are Henry Pate, Sean Nunnery, Alexandra Evans, Libby Barnes and Anna Smith. Back from the left are Bizzell Pate, Caleb Williams, Hunter Elks, MacKenzie Morris, Amelia Harris and Whitney McLean

Junior Team

Intermediate Team

The Bladen County 4-H Youth Livestock Skillathon team competed at the Junior Beef Round-Up contest on May 30th and brought back lots of awards. The Juniors won 1st place overall junior team with Amelia Harris placing 1st overall junior individual and Henry Pate placing 2nd overall junior individual. The intermediate team won 1st place overall intermediate team. The teams will be competing at the state 4-H contest at the end of July.

Pesticide Classes
August 10th in Bladen County at the Extension Office
3pm - 2 hours of X credit
5pm - 2 hours of V credit

Clinton Feeder Calf Sale

is September 8th at 7 pm at the Sampson County Livestock Facility. Cattle should be brought to the facility for grading on September 8th between 7:30 am and 4 pm. For more information or to consign, call Paul Gonzalez in Sampson at 910-592-7161.

NC State University A&T State University COOPERATIVE EXTENSION
Empowering People · Providing Solutions

2015 Regional Chicken Project and Show

By: Justin Whitley, Livestock Extension Agent with N.C. Cooperative Extension in Duplin County

There are an increasing number of youth who are interested in raising and showing chickens. In response to this need, Extension Agents in Bladen, Robeson, Hoke, Cumberland, Duplin, Columbus, Pender, and Onslow counties came together to plan a regional chicken project! Livestock agents and 4-H agents from these counties worked together with FFA advisors to advertise and recruit participants and ended up with 82 youth across the southeast signed up to show either a Cinnamon Queen hen or a broiler that was hatched in 2nd grade classes in Bladen county through their 4-H Embryology Program.

The kids got their hens at the end of February at 3 days old and raised them for 4 months. Those that decided to show broilers got them in late March and raised them to 7 weeks of age. During this time, the kids were required to attend an orientation program as well as a showmanship/record book workshop at their local Extension office. We wanted to make sure these kids were learning while having fun with their projects!

At the show there were 45 youth that participated. There were showmanship classes by age group, followed by the hen classes and the broiler classes. We had beautiful weather and all the kids and their families had a great time! The youth that showed their hens took them home and continue to learn from their projects. The broilers were harvested the day after the show and we donated the meat from 68 chickens to the local Bladen County food bank.

This really turned out to be a great program that we hope to be able to continue in the future. Special thanks to Cape Fear Farm Credit for their sponsorship and support and thanks to all our volunteers and participants!

Recognition and ribbons were given to all Cloverbuds ages 5 to 8 for their participation in Showmanship and Recordbooks. Cloverbud participants included the following: Allyson Hatcher, Lindsey Hatcher, and Cresson Ivey of Duplin County; Terra Lynn Edwards, Caleb Locklear and Naomi Edwards of Hoke County, and Delainey Smith of Cumberland County.

Ribbons were presented to the following youth for their achievements in Junior Showmanship division: Amelia Harris 1st place, Luke Barber 2nd place, and Jacie Kinlaw 3rd place. The Senior Showmanship winners were as follows: Will Hall 1st place, John Faatz 2nd place, and Destiny Everitte 3rd place. In the breed classes, the awards for best hens went to Socoria Hunt 1st place, Lee Barnes 2nd place and Olivia Barnes 3rd place. The awards for best broilers were presented to Lianna Edwards 1st place, Alora Edwards 2nd place, and Naomi Edwards 3rd place.

The youth were recognized for their project record books documenting their individual chicken project. The project book winners in the 4-H 9 to 10 year old category were 1st place Hector Hughes, 2nd place Lee Barnes, and 3rd place Jacie Kinlaw. The 4-H 11 to 12 year old winners were 1st place Amelia Harris, 2nd place Hannah Wood, and 3rd place Marla Hughes. The 4-H 13 to 15 year old winners were 1st place Olivia Barnes and 2nd place Alora Edwards. The 4-H 16 to 19 year old winner was Lianna Edwards. In addition, the FFA students competed in middle school and high school project book categoires. Middle school FFA winners were 1st place James Faatz, 2nd place Miriam Davenport, and 3rd place John Faatz. The high school FFA winners were 1st place Destiny Everette, 2nd place Abigail Moncrief, and 3rd place Justin Locklear.

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 (60-80 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.

Hay Supplies

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

Most people are busy planning summer vacations and pool parties, but now is also the time for livestock owners to plan for winter feed supplies. Of course, if you have a winter grass to feed animals, that is the most economical way to feed them. If you don't have enough grass to last all winter or don't have the equipment to cut your own hay, now is the time to purchase. In most years, around January or February, our Extension offices are flooded with calls from livestock owners desperately seeking hay. That time period is the unfortunate gap between where hay farmers are sold out and the summer grass has not come on yet.

Whether you have a way to store your hay on your farm, can store it with someone else, or just need to stack it in the field, it is best to get your supply now while hay is still available. With the weather we've been having this year, we will probably have another shortage again next spring, so be prepared. If you cannot find enough hay, you may need to reduce your number of animals. You can locate hay providers at these websites: http://www.ncagr.gov/hayalert/ or http://onslow.ces.ncsu.edu/files/library/67/HayDirectory.pdf. The best way to estimate how much hay you will need is to keep record every year on how many animals you have fed for how many days with how many bales. You can then adjust accordingly based off of shortages or surpluses. If you don't have a record or are raising livestock for the first time, you can estimate how much hay you might need for different species of animals below.

You need to first figure out the number of days that feed is required. This will vary from around 90 to 150 days, depending on the climate in your area and the amount of stockpiled forage available. A quick, easy way to estimate feed requirements is on the basis of animal units. This can be done based on a mature cow or a bull equal to one unit, yearling cattle equal to one-half unit, and calves equal to one-fourth unit. Using this method each animal unit will require approximately 25 pounds of hay assuming average to good quality hay. When estimating quantity of hay, it is best to obtain the average weight of several bales and then multiply this times the number of bales. Remember that large bales stored outside may have substantial losses during storage and feeding, which must be taken into consideration. Remember that using animal units to estimate feed requirements is just that, only a quick estimate. To be more accurate you need to consider exact nutritional requirements for the size of animal and stage of reproduction or growth desired. Also, feed supply can be more accurately estimated if you have a forage analysis to determine the exact nutrient content.

The following is an example of stored feed requirements for a herd of 35 cows, one bull, and 8 replacement heifers with a winter feeding period of 120 days. Thirty-five cow animal units, 1 bull animal unit, and 4 replacement heifer units (1/2 animal unit per heifer) equal 40 total animal units. Therefore, 40 animal units x 120 days x 25 pounds of hay per day = 120,000 pounds or 60 tons of hay. It is best to use a 25% safety factor when determining amount needed. 60 tons X .25= 75 tons of hay.

If you are feeding 30 goats or sheep for 150 days, you can use the following estimate: 4 lbs of hay per animal per day X 150 days X 30 does= 18,000 lbs. If you use square bales around 50 lbs, you would need 18,000 lbs of hay/ 50 lbs in a square bale= 360 square bales needed. If you are feeding 800 lb round bales, you would need 18,000 lbs of hay/ 800 lbs in a round bale= 23 bales.

A good quick estimate for adult horses is that they need about half a square bale of hay per day. So if you feed 2 horses for 150 days, you would need approximately 150 square bales or around 10 round bales.
We will be more than happy to help you with more in depth calculations and numbers specific to your farm to estimate hay needs for your livestock. However, we would much rather help you calculate hay supply needs now, then to struggle to help you find hay in the spring. If you need help with hay estimations, please call your local Extension Agent for assistance.

Hot Weather & Beef Cattle

By: Randy Wood, Livestock Extension Agent with N.C. Cooperative Extension in Scotland County

Hot weather is a fact of life in North Carolina. Those of us lucky to call the Old North State home have to deal with Fire Ants, Pigweed, and a chance of thunderstorms every single day. We also have to deal with upper 90's and high humidity for a bulk of the summer. This June however has really driven this point home. The last two weeks have seen highs of nearly 100 degrees every single day. For those of us in the cattle business, this presents its own set of problems. Let's take a minute to look at a few issues that we must manage around in this heat.

Water Consumption

Water requirements for cattle go up significantly when temperatures get into the 90's. This is not exactly groundbreaking research. Sometimes we as managers can overlook factors such as water source availability and volume of water present when all your cows decide they are thirsty at the same time. A 1300 pound cow can easily drink 25 gallons of water on a hot day. So for a herd of 50 cows, this adds up to 1,250 gallons of water per day. Take a minute and think about how much water that actually is. Now look at how and where your cattle are watering from. It is not uncommon for people to have a 150 gallon water trough as their main water system. That tank will need to fill up 9 times per day to meet the needs of your cows. If you've ever stood and waited for a 150 gallons of water to flow into a trough through a float, it takes a while. Having a big enough trough or maybe even two troughs can help cattle meet their daily water requirements without standing around for an hour waiting to get a drink.

Shade

One thing that we often fail to think about is that an animal needs to someway get out of the sun during the heat of the day. During our daytime highs , some type of shade is critical towards helping your cattle stay comfortable. Some would go as far as to argue that having no shade during the summer is almost inhumane treatment of animals.

Most cattle producers rely on trees for shade in a majority of their pastures. Trees work really well but you need to take a moment and assess what type of trees you have and how well they filter the sun. Pine trees, the most common tree we see around our pastures, are pretty lousy at this. A thick enough stand of pines will do a decent job, but a few here and there offer almost no shade coverage. Hardwoods are much better, and even un-desirable hedgerow shrubs like Privet Hedge can offer some shade if big/thick enough. One downside to really good hardwood trees in a pasture is that cattle have a bad habit of killing them over time. The mud and inevitable eroding of top soil off the root system does not do a tree any favors and will often lead to the tree becoming weak and dying.

Shelters of course are ideal for lounging areas for cattle. Either metal roofs (if over 7' tall) or even filter cloth roofs offer excellent shade coverage. Cloth roofs can be used during the hot months then removed and stored over the winter.

Handling Cattle

The biggest single factor to avoid when looking at heat stress is handling/working your cattle in the middle of summer. Some handling is inevitable of course. Fly treatments have to be made, calves have to be weaned, and many cattle farms put their calves through some type of pre-conditioning program that will require deworming and vaccinations. So while we often must get some cattle through the chute during the summertime, it is critical that you be smart and plan this out.

The first rule of thumb is start early/end early. As quick as you can get going in the morning the cooler it will be plus the humidity will not have started to increase. Once temperatures have started to reach their peak by early afternoon you need to either be finished or just quit for the day and go again tomorrow. This will be much easier on both you and your cattle.

Second, watch the weather forecast. If you have some flexibility on when you can work your cattle, see if you can get lucky and catch a day or two that is a little cooler. Even a few degrees can make a big difference when it comes time to work your cattle.

Finally, realize that if it's hot and miserable to you it will be the same for your cows. Cattle that are hot and uncomfortable will handle like it. The same group of cows that work great in the winter will not act the same on a 90 degree day when they have been crowded up for three hours. Make sure you have enough help lined up, take some water breaks and try to find some extra patience when working your cows in the summertime.

Caprine Arthritis Encephalitis and Ovine Progressive Pneumonia

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

Caprine arthritis encephalitis or CAE is a viral disease affecting goats. CAE is caused by the caprine encephalitis virus, which is a lentivirus in the family Retroviridae. Other retroviruses in this family include the human immunodeficiency virus that causes AIDS. CAE is more widespread in developed countries, such as the United States, Canada, Norway and Sweden compared to indigenous goat populations in developing countries. CAE is more common among dairy goats and less common in meat and fiber goats.

Goats become infected with CAE at a young age, but may not display symptoms until months or years later, if at all. CAE causes multisystem diseases, with arthritis, pneumonia, mastitis, and weight loss being more common in does and encephalitis being more common in kids. Arthritis generally affects sexually mature goats, with them becoming lame suddenly or gradually and will become progressively worse. Goats can lose body condition and develop a rough hair coat. The does can develop mastitis, which causes the udder to become hard due to the body's immune response. This can result in low or completely absent milk production. Signs of labored breathing as a result of pneumonia can be seen in both mature goats and kids. Kids two to four months of age are more likely to show signs of encephalomyelitis, an inflammation of the tissues in the brain and brain stem. Eventually the kid will become paralyzed in either both limbs on the same side of the body or all four limbs. Standing will become impossible. Other signs that could indicate the kid has CAE are depression, walking in circles, head tilt, exaggerated upward or sideward tilt of the head, and muscle tremors.

CAE is a persistent, life-long disease; once the goat is infected it will always be infected. The quality of life for goats infected with CAE is poor because of the pain and disability caused by the virus. Consumption of virus-infected colostrum by a kid is the major route of transmission. Other possible routes include transfer of the virus from doe to kid while the doe is pregnant, during the birthing process, and kids coming in contact with an infected doe's saliva or nasal secretions. Currently, there is no evidence that bucks transmit the infection to does via semen, but it is recommended to still use caution when using a breeding buck that has tested positive.

Over the past ten years, there is ample evidence to show that CAE can infect sheep and that the ovine lentivirus of sheep can infect goats. Routes of transmission include consumption of virus-contaminated colostrum or milk and direct contact between goats and sheep in closely stocked barns.

The viral disease caused by the ovine lentivirus in sheep is called ovine progressive pneumonia (OPP). Most sheep will not show any symptoms of the disease and if they do, they do not display signs until two years of age or older because of a longer incubation period for the virus. Loss of body condition is generally the first sign noticed. Another sign is labored breathing at rest and tiring easily. It is common for the infected animals to get secondary bacterial infections causing fever, cough, lethargy, and nasal discharge. Like goats, sheep can display signs of encephalitis, such as stumbling and twitching, and possible paralysis.

Despite knowing and studying CAE for more than 30 years, there is still no commercial vaccination available. There are management tools to minimize transmission and supportive treatments to help ease the pain caused by the symptoms. Preventing kids from nursing from infected does and separating or culling kids and does that have tested positive are two ways to help pre-vent the spread of the disease. Prior to bringing animals into your herd, it would be smart to have them tested. If the animal is displaying signs of arthritis, regular hoof trimming, adding bedding, and administering NSAIDs under the guidance of a veterinarian could help make the animal more comfortable. Using antibi-otics to treat secondary bacterial infections may also help. Also, providing high-quality, easily digestible feed may delay weight loss.

Laboratory tests can be done using blood samples. If you have more questions about CAE or OPP, contact your local veterinarian or Extension Agent.

What Does Avian Influenza Mean to Your Farm?

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

The outbreak of Avian Influenza or AI in the U.S. this year has been quite damaging to the poultry industry. Luckily growers in NC and the rest of the southeast, which is the heart of broiler production, have dodged the disease so far. The outbreak has been traced to migratory waterfowl and started on the West coast along the Pacific flyway path and later spread to the Mississippi flyway making it as far south as Kentucky and Arkansas. AI, often referred to by the public as bird flu, is primarily a respiratory virus and just like human flu viruses it comes in many strains. The strains are labeled based on the locations of certain proteins on two spots of the virus particle. The current strain we are most concerned with is H5N2. The numbers in these sequences change as the locations of the protein changes in relation to the H and N spots of the virus. Imagine a stop sign and each corner is numbered. The particular protein can be attached to any corner of the sign but as the location changes so does the properties of that strain of virus. In addition to the letter and number sequence the strains are also classified based on their ability to spread and infect others. The H5N2 strain causing the recent outbreaks is Highly Pathogenic meaning it spreads easily and infects more than 50% of a flock.

While this strain is similar it is not the same as the AI strain found in Asia that has infected some people and there has been no spread to humans or other species of this strain. The CDC considers this strain to be of low concern to human health, but good biosecurity practices should be maintained as a precaution. The areas of the country affected by this recent AI problem primarily are turkey and egg producing states so there has been an increase in egg cost and some price adjustments in turkey are likely. In the case of table eggs, the loss of production will affect prices for at least 18 months as farms that were depopulated are cleaned and extra pullets are produced. Pullets take three weeks to hatch and eighteen more weeks to grow out, assuming there are enough fertile eggs and incubator space available to meet the sudden demand. So what does this mean for poultry producers in North Carolina?

First the good news, as I write this there have been no new cases since June 17th and there was an eight day break going back to the 9th of the month before that. The Northern migration period has ended so hopefully we have stopped the current spread of AI in the US. The big concern is that when the southern migration starts in the fall the country will be faced with a renewed virus challenge and this time the Atlantic flyway that encompasses NC may see infected waterfowl. That is why the NCDA, along with 13 other states, has taken the precautionary step of banning poultry shows, exhibits, fairs and public sales beginning on August 15th. This is an important step in preventing the spread from flock to flock but it is imperative that all poultry owners both big and small practice good biosecruity. Attention should be focused on preventing contact with wild birds especially waterfowl and areas they frequent; such as grassy areas near and around ponds, and do not allow domestic poultry to drink from open water sources. It is also very important to report any suspected AI cases as soon as possible to the state veterinarians office so action can be taken to prevent the spread of the disease.

If AI is confirmed in our state there will be a quarantine zone placed around any AI positive farm, the birds on that farm will be euthanized. Testing will be done to monitor all other poultry in the quarantine zone and movement in or out of the zone must be permitted. Commercial growers should use these next few months to make sure they have a good biosecurity program and make plans to prepare for delays in movement, restocking, and the possible depopulation of a flock. Growers should work with integrators, Extension, NRCS and the NCDA to identify and reduce the risk on their farms paying special attention to these principles and concerns:

- Secure all entry points to houses: gables, attic inlets, fan coverings, and doors
- Eliminate all but essential personnel and equipment entry to the farm
- Prepare disinfection and wash stations for all that must enter the farm
- Use, clean and or dispose of PPE properly: dust mask, boot covers, gloves, etc.
- Qualify any possible emergency mass burial sites for a flock depopulation
- Locate & retain equipment needed for burial pit construction if an option
- Get a Farm Identification # (will make testing & indemnification faster)
- Secure a source of carbon for composting if on farm burial is not an option

For more information on the public poultry ban or other Avian Influenza information checkout http://www.ncagr.gov/avianflu/ and to get your Farm Identification number http://www.ncagr.gov/ncfarmid/index.htm