May 11 - Animal Welfare Issues Meeting at 7 pm

There will be a webcast session with Dr. Mark Alley, NCSU Extension Veterinarian, on the following topics: Groups that are attacking animal agriculture and their strength and agendas; what producers can do to protect and help the animal agriculture industry; groups or programs that are dealing with animal welfare issues. Please join us and take advantage of this opportunity to learn about the issues that face all of animal agriculture, what livestock producers of any size can do to help themselves and to learn about the animal welfare programs. Call the Extension Office at 862-4591 by May 10th to register.

May 13 - Pond Management Seminar

There will be a webcast session on May 13th at 9 am on pond management in North Carolina. Topics include pond construction, stocking rates, fish species, managing water quality, balancing fish populations, recreational trout ponds, and feeding fish. Aquatic weed identification and control methods will be offered as well. Pesticide credits have been approved for 1 hour for A N D X. The cost is $5 per person and you can pay at the door (checks made out to Haywood County). Call the Extension Office at 862-4591 by May 12th to register.
## Animal Waste Management

By: Becky Spearman, Livestock Extension Agent with NC Cooperative Extension in Bladen County

### Calibration and Sludge Surveys

All farms are required to calibrate their irrigation equipment and perform a sludge survey. General Permit Farms are required to calibrate at least once every two years and perform a sludge survey every year (unless an extension from DWQ was granted). NPDES farms must complete both every year. Call your Extension Agent for more information.

### Initial 10 hour Animal Waste Certification Training

**July 20-21, 2010 from 9 am-5 pm**
Mt. Olive College, Agribusiness Center
Pre-registration is required and fees apply.
Contact Kim Davis at 919-731-1520 to register.

### Alternative Technology Tour

There will be an alternative technology tour at Barham Farm (10518 Covered Bridge Rd, Zebulon, NC 27597) on Tuesday, May 25th starting at 9:30 am. 3 hours of continuing education credit will be given. Topics to include: overview of farm system, greenhouses, nutrient use, and tomato business; engine/generator, air scrubbing and exhaust cleanup; Biovator; Duckweed tanks and ponds; Biofilters; Struvite; and covered digester. Register by calling Nita Walton or Diana Rashash at (910) 455-5873.

There will be a van leaving the Bladen Extension office at 7 am. Call 862-4591 by May 21st if you want to ride in the van.

### Forages

#### Hay Directories

There are two website directories for people selling haying 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/](http://www.agr.state.nc.us/hayalert/).
   Producers can call the Hay Alert at 1-866-506-6222 or you can sign up to list your hay on-line.
   Call your Extension Agent to learn how to include your farm on the list.

#### New herbicide labeled for use in pastures and hayfields - Pastora

Pastora is a newly labeled herbicide from Dupont. Pastora herbicide is a selective, broad-spectrum herbicide for postemergence control of grasses including field sandbur and johnsongrass in bermudagrass pastures and hayfields. It provides control on more than 25 grass weeds and 100 broadleaf weeds. Pastora also provides residual control of broadleaf weeds. The active ingredients are nicosulfuron and metsulfuron methyl. The labeled rate is 1 to 1.5 ounces per acre and cannot exceed 2.5 ounces per acre per year. Follow-up applications may be necessary to control heavy infestations or additional flushes of certain weeds, including sandbur. Consult the Pastora label for recommended application times. There are no grazing, haying, or manure use restrictions for any class of livestock or horses. Always read the label before using herbicides. Information from Dupont Pastora label.

#### Forage Management Tips

* **May**
  - Plant summer annuals at two-week intervals to stagger the forage availability.
  - Fertilize warm-season grasses with nitrogen after each cutting or every four to six weeks on pastures.
  - Spray pasture weeds while they are small (3 inches) for most effective control.
  - Do not apply nitrogen to fescue pastures from April until August.

* **June**
  - Soil sample fields to be overseeded or planted in the fall.
  - Apply limestone as far in advance of planting as possible.
  - Consider a late planting of summer annuals.
  - Cross fence to help manage feed quality.
  - Graze bermudagrass close (1 to 2 inch stubble) and harvest any growth not grazed every four-six weeks.
  - Control summer weeds before they get too mature.
Fire ants are a nuisance in pastures and hay fields and have a negative impact in many ways. They can cause injury to animals and humans, damage and wear equipment, ruin hay or feed and cause many other problems. Unfortunately, there is no simple fix to the problem. This article will discuss chemical control options.

There are a few labeled pesticides for pastures. The two ways to treat fire ants are direct mound drenches and broadcast baits. The mound drenches use chemicals to directly treat an individual mound. The broadcast baits contain insect growth regulators (IGRs) and the bait is spread across the pasture or hayfield. The chart below lists the advantages and disadvantages of both methods. A combination of the two methods may be more effective in controlling fire ants.

### Advantages

| Direct Mound Drenches | Fast acting  
Insecticides applied only to targeted mounds |
|-----------------------|-----------------------------------------------|
| Broadcast Bait Treatments | Quick and easy application  
Less hazardous, generally  
Least expensive method for large areas  
Less labor required |

### Disadvantages

| More expensive for large areas  
More labor intensive  
Treatments affects only older colonies with visible mounds |
| Slower than liquids  
May affect helpful non-target ants |

### Insect Control on Forage Crops from the 2010 North Carolina Agricultural Chemicals Manual

<table>
<thead>
<tr>
<th>Insecticide and formulation</th>
<th>Always consult label for restrictions and directions before using any chemical.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydramethylnon (Amdro Pro or Siege Pro)</td>
<td>Special label in North Carolina. Consult label for restrictions and directions in using this bait in pasture. 7 days minimum between application and harvest (cut or bale).</td>
</tr>
<tr>
<td>fenoxycarb (Award)</td>
<td>Slow acting bait. May not be used on grazed land except horse farms where horses are not used for human consumption.</td>
</tr>
<tr>
<td>methoprene (Extinguish)</td>
<td>Bait. See label for restrictions.</td>
</tr>
<tr>
<td>methoprene + hydramethylnon (Extinguish Plus)</td>
<td>Consult label for restrictions. 7 days minimum between application and harvest (cut or bale).</td>
</tr>
<tr>
<td>pyriproxyfen (Esteem Ant Bait)</td>
<td>Bait. Mound or broadcast application. See supplemental label for application recommendations.</td>
</tr>
<tr>
<td>carbaryl (Sevin)</td>
<td>Some formulations of Sevin are labeled as mound drench in pasture. Do not make application simultaneously with a bait.</td>
</tr>
</tbody>
</table>

The best times to treat fire ants are in mid-spring and fall. Ants should be actively foraging so they pick up the insecticide and take it to the colony. The best time of day is in the morning when air temperatures are around 70°F. To see if the ants are active, place a few potato chips on the ground. If ants are noticed within 30 minutes, the colonies are active.

Alabama Extension studies show an effective strategy of a 50/50 bait mix of hydramethylnon and methoprene in a skip-swath pattern. The skip-swath method leaves every other swath untreated to cover more acres with one bag of bait thus reducing the cost of application.

There are many fire ant resources on the eXtension website at http://www.extension.org/fire ants or call your Livestock Extension Agent for more information.
In our last news article we discussed some of the more commonly seen beef cattle diseases in the Southeast. This month, we will take a look at understanding vaccines and how to develop a comprehensive vaccination program.

All vaccines work by introducing a tiny but harmless portion of the targeted disease into the animal to cause an immune response that will build-up antibodies in the animal to prevent the animal from getting the disease if ever exposed. There are traditionally two types of vaccines available for this procedure; killed vaccines and modified live vaccines. In the last few years, a third option, a killed/live blend has become available as well.

The debate over modified live versus killed vaccines
For years the great debate in the cattle industry has been killed vaccines versus modified live vaccines. There are pros and cons to each. What most cattle farmers must ask themselves is how much work are they willing to do versus risk of a future infection.

In simple terms, killed vaccines do not give as strong an immune response but require at least one booster vaccination 2-4 weeks after the initial shot. An annual booster vaccination given every year after that is also a very good idea for long-term immunity. However, it is a relatively accepted belief that they also are not as effective (especially for respiratory diseases) as their modified live counter parts. Almost all of the company vaccination programs and most cattle buyers do not consider cattle to be vaccinated at all unless they have been vaccinated with a live vaccine.

Modified live vaccines generally give a quicker and stronger response. There are certainly some drawbacks to this route though. Due to the way they work, modified live vaccines for reproductive diseases (Lepto, Vibrio, etc) can possibly cause a strong enough immune response that pregnant cows can abort after either receiving the vaccine directly or having close contact with other vaccinated animals that were recently vaccinated. If these brood cows were previously vaccinated with a live vaccine though, this possibility is almost nonexistent. The old rule of thumb with live vaccines was that you only had to give one shot to achieve immunity. Over the last few years though, most vaccination programs will still call for two rounds of modified live vaccines to make sure cattle have received full immunity.

The somewhat new player in the vaccine world are vaccines that have both modified live strains of certain diseases (usually respiratory), but killed strains of other diseases (usually reproductive). This way you get a stronger response while avoiding potential problems in your pregnant cattle.

How to set up a program for your farm
A quick look on the Internet or in any animal health catalog will give you what options are available for vaccination blends. Most of your reproductive and respiratory diseases are usually available in one vaccine. Blackleg vaccines (which are a killed vaccine) are available either as a stand-alone vaccine or are often blended with other bacterial diseases. Pretty much no matter what you want to vaccinate for, there is usually a blend available to suit you.

Vaccinating calves to sell
What you vaccinate calves for to sell them is usually dictated by the sale guidelines. Graded feeder calf sales usually only require a single Blackleg vaccination. Preconditioned sales will normally require a “named” vaccination program, such as Select Vac or Vac 45. For farms selling truckload lots through the Internet or video auctions, the current trend is to also go with one of the company programs. This not only gives brand recognition to the buyers, but also comes with the company’s financial protection in case the vaccines fail and the cattle get sick.

I’ve never vaccinated any of my cattle before, how do I get started?
The only real tricky part of starting a program from scratch is avoiding potential problems with pregnant cows. If you have a controlled breeding season this is really not a big problem. Simply time your vaccinations after all of your cattle have calved and before the start of breeding season. This way you can use a single dose of modified live vaccine without worrying about any abortion problems. If you calf year round or have multiple calving seasons then this is a little more difficult, but still doable if you can work everything out logistically. All you need to do is avoid direct exposure for a few weeks between the recently vaccinated and non-vaccinated pregnant cattle. Exposure can be running side-by-side in the same pasture of course, but also drinking out of the same water trough or nose to nose contact through a fence line. Once you are able to vaccinate all the cattle on the farm over time, then this potential problem is much less likely. This rule of thumb will also go for any heifers you keep as replacement, herd bulls, etc.

While this may seem like a tall order starting from scratch, calculate how much it would cost to vaccinate your cattle (at most $3.50-$5.00/head) versus what it would cost you to have an outbreak of a major cattle disease that would rob you of calf performance, possibly abortions, and/or dead calves.
Anyone who has been a victim of horse theft can attest to the emotional and economic effects of this crime. Even though horse theft in North Carolina is somewhat rare, it does occur, and with recent thefts and theft attempts occurring last month in Virginia, it makes good sense to evaluate your preparedness. Although it seems as though horse theft has decreased in many states following the closure of U.S. slaughterhouses and with the recent struggling economy, some border states have not seemed the same reprieve. This may be because animals can quickly be shipped across the border to slaughter houses, or to be sold in Canada or Mexico. If you are traveling to a border state over the summer to visit or to compete, be aware that theft is a very serious problem in some of these states, and there have been cases of horses being stolen right from the show grounds. Regardless of how or why it happens, there are steps you can take to reduce the chances that a thief will target you, and make getting your horse back easier if it is stolen or simply lost.

Many times horses are stolen simply because it was easy for the thieves. The following are practices horse owners and barn managers can implement to help curb the threat. Not all of these will be practical for everyone, but at least some are applicable for every horse owner.

- **Permanently mark horses with one or more method.** This can include freeze branding, tattooing, and/or microchip implants. Not only do all of these identification methods make it easier to recover a stolen or lost horse, but thieves are less likely to steal horses with obvious permanent identification such as tattoos and brands.

- **Secure barns and paddocks from the road with sturdy perimeter fencing and well-constructed gaits.** Chain and lock gaits to pastures that can be entered from the road. Anything that will slow down a thief will make them less likely to target your barn.

- **Use management practices for pastured horses that make theft more difficult,** such as never leaving halters on pastured horses (also a potential safety issue) and not feeding horses close to a gait or to the road. This practice can actually help thieves as horses become more likely to congregate in this area or come to the area when people approach, making them easier for thieves to catch. Also make an effort to check on pastured horses frequently and vary the times you make your trips.

- **If possible, build barns and paddocks away from roads and beyond your residence.** A thief is less likely to want to pass by a residence.

- **Post warning signs or install motion sensor lights where appropriate.**

- **Dogs and other animals** may help deter thieves but remember that these animals require management as well.

- **Park horse trailers out of view and secure them with a commercially available hitch lock or padlock.** Parking trailers out of sight makes it harder for thieves to determine what is available and to determine if you’re out of town.

Preparation, quick actions, and persistence will be important in recovering stolen or lost horses and the action you take in the first 24 hours can mean the difference in recovery and loss. To improve the chances of recovering your horse, be prepared so that you can act quickly.

- **Permanent identification** will not only make it easier to track your horse and for others to identify it, but it helps you prove ownership.

- **Keep current, useful photographs of your horse in a file.** Photograph all 4 sides of your horse as clearly as possible and update photos yearly and/or seasonally to show differences in summer and winter hair coats. Make sure to keep people, other animals, tack, and other objects out of the photo as these items are distracting and can impair the usefulness of the photo. Also make sure to get close-ups of brands and/or distinguishing marks that help identify your horse from others.

- **Have an up-to-date, easy-to-locate file that proves ownership.** This file should contain registration papers, transfer of ownership forms or a bill of sale, descriptions of identifying marks or brands, and your photographs. Make sure to take this file with you when you travel in case your horse is stolen or lost on the road or at an event.

- **Immediately contact law enforcement officials in the area if your horse is lost or stolen.** This is where your proof-of-ownership file will be necessary. Write down the case number they assign you and keep it for future conversations.

- **Get the word out and reach as many people as possible.** Alert breed registries, state horse groups, livestock auctions, equine veterinarians, tack and feed stores, farm publications, newspapers, and other local media. Target a 500 to 600 mile radius from where your horse disappeared; many thieves will count on you not looking past a 2-hour drive. If you locate your horse, keep it under surveillance but stay as far away as possible and never trespass. Call law enforcement and let them handle the situation.
In these tough economic times with the price of feed being so expensive, it’s important to plan ahead for your goat herd. The market price on goats right now is very good, so most producers are wondering how they can improve their profits even more. Reducing feed costs is one way to increase profits. Maximizing your pasture potential is the most economical way to feed goats in North Carolina. While you may not be able to purchase more land for grazing, the pasture that you already own can be improved upon to make sure it is producing as much as it can for your goats. If you have not already done so, you’ll need to take a soil sample of your pastures. You can borrow a soil probe from your local Extension office and get the boxes and paperwork to go with it. Most Extension offices will even mail them to the laboratory for you. Once you get the results back, you’ll know exactly how much lime and fertilizer that you will need to apply. This saves valuable time and money by only putting out what is needed. Nitrogen should be applied to pasture at the correct time for optimal growth. You can also add legumes such as clover to reduce the need for nitrogen application since legumes make their own nitrogen.

It’s a really good idea to subdivide pastures for grazing. Smaller fields and shorter rotational periods allow animals to waste less and give the plants more time to recover. You can also have higher stocking rates with intensive, rotational grazing systems. Rotational grazing may help with parasite control. You can also extend the grazing season to reduce the amount of purchased feed. Overseeding your pasture is a good way to do this. You can overseed with rye, ryegrass, oats, wheat, or triticale in the fall.

Another step to reduce feed cost is to make sure your feed meets each goat’s requirements without exceeding them. Each animals needs depend on its weight, age, body condition score, stage of production, and level of exercise. Reading the feed bag carefully or working with your Extension agent if you mix your own feed can really help to make sure you are feeding the goat what it needs. It will help you if you are able to split your goats into groups based off of stage of production and body condition scores. This way, you can feed them uniformly.

Feeding goats more than their nutritional requirements is very costly, but also not providing enough nutrition costs you in ways that may not be obvious such as dystocia, prolapse, pregnancy toxemia, and abortions. Fat bucks may not breed because they don’t have much energy. Many producers think that underfeeding animals is saving them money, but in the future it will cost more in the long run from poor performance and health issues. A reduction in the number of animals is a better solution to reduce cost than underfeeding.

Hay can be expensive to feed, but in most forage systems, it is necessary to feed hay at least some of the time. Hay should be tested to determine the nutritive content. You can borrow a hay probe from your local Extension Office and mail a sample for $10. This simple test easily pays for itself because you can fine-tune your feed ration by using the results. This saves you money because you only supplement the grain that is needed. The best hay should always be fed to growing kids and lactating does, since they have the highest nutritional requirements.

Body condition scoring is an effective and easy tool for producers to learn. You can use this tool to determine how your feeding program is working. Please call your Extension Agent if you need to learn how to do this. Any animals that are poor performers need to be culled if the goat farmer has profit in mind. Feeding unproductive animals is a big waste of money.

Anyway that you can minimize feed wastage on your farm will save you money. A lot of grain and hay is wasted if fed on the ground. Grain should be fed in feeders that prevent animals from climbing inside them. A lot of feed can be wasted from feces and urine getting in it. Make sure there is enough feeder space for all animals to eat at the same time, if not a few animals will lose condition. Using a hay ring or building your own saves wastage from animals trampling it or soiling it. There are several economical ways to build your own such as the example pictured here. If you need help getting ideas on how to make your goat farm more profitable, please call your local Extension Agent for assistance.