Cattle Assessment Referendum

The North Carolina Cattlemen’s Association (NCCA) has announced that the NC Cattle Industry Assessment Referendum vote will take place on October 6, 2009. The referendum is to assess all cattle one dollar per head for the purpose of promoting the cattle industry in NC. All NC cattle owners over the age of 18 are eligible to vote during the regular business hours of their County Extension Office.

Eastern Carolina Cattlemen’s Conference - will be on October 28th at the Duplin County Event Center in Kenansville starting at 8:00 am. The agenda includes a Stewardship and Stockmanship Tour with Ron Gill, Texas A&M, and Curt Pate, stockmanship instructor; trade show; educational seminars - Dr. Mark Alley on animal health and Dr. Matt Poore on cow herd life cycle nutrition, a producer panel, and lunch. Pre-registration is $20.00 and $30.00 for on-site registration. For more information, contact Brandon Cox, Duplin County Extension Agent, at 910-296-2143.

Cape Fear Regional Cattle College

The first annual Cape Fear Regional Cattle College will be held on January 14th at the Robeson County Extension Center. The College will start at 4:00 pm and will include presentations by Bryan Blinson, NC Cattlemen’s Association; Dr. Gary Hansen, North Carolina State University (NCSU) Beef Specialist; Dr. Mark Alley, NCSU Vet School; and Dr. Matt Poore, NCSU Beef Specialist. The program includes a meal and vendors to visit with during the college.

Cumberland County Voluntary Agriculture District (VAD)

For information on how you can enroll your farm in the Voluntary Agriculture District, contact Colby Lambert, Extension Agent, at 910-321-6875.
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. The sludge survey forms changed in 2008. Call your Extension Agent for more information.

State General Permits

The State General Permits expired on September 30, 2009. You should have received your new permit and certificate of coverage in September from the Division of Water Quality. If you have not received your new Certificate of Coverage by October 15th, it is suggested that you notify the Division of Water Quality regional office staff.

Some of the key differences follow:
- Phosphorous assessment may be required for facilities in watersheds sensitive to nutrient enrichment.
- Sludge applied to bare soils must be incorporated within 2 days or prior to the next rainfall event-whichever is first.
- Routine inspections after one inch rainfall shall include visual inspection of drain outlets, ditches, and drainage ways for any discharge of waste.
- No application of waste if Hurricane or Tropical Storm Warning or Flood Watch associated with a tropical system is issued for the county in which the facility is located. This is a requirement to stop applications 24 hours in advance of a tropical system.
- Sludge levels must be in compliance within two years.

Reminder - Animal Waste Operators must send in their $10 renewal fee to DWQ by December 31st.

Check your Cont Ed Hours! - Animal waste operators must have six hours of continuing education credit every three years. Call your Extension Agent to check your hours or go to DWQ’s website at http://h2o.enr.state.nc.us/tacu. Click on Renewal Information.

CONTINUING EDUCATION CLASSES

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* Bladen and Robeson classes will have 3-2 hour classes.

Forage Management Tips

From Production and Utilization of Pastures and Forages in North Carolina.

October
- Finish using summer grasses before grazing the cool-season ones.
- Watch for prussic acid poisoning when grazing sudan and sorghum-sudans after the first frost.
- Overseed warm-season grasses with winter annuals.

November
- Do not graze fall-planted 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 using hay that is stored inside.
Herbicides - Take time to consider the repercussions of what you are using
By: Randy Wood, Area Livestock Extension Agent with NC Cooperative Extension in Hoke and Scotland Counties

As someone who appreciates a weed-free pasture or hayfield, I spend a lot of my time talking to farmers about weed control and what herbicide options are available. One thing that I have noticed in almost every conversation on this topic is that when I talk about the specific precautions for applying various chemicals, this inevitability is the part of the conversation that they pay the least amount of attention. Part of this apathy comes from the fact that our historical bread and butter herbicide, 2,4-D, is a relatively low-impact herbicide as long as it does not drift onto a sensitive crop when it is being applied. However, as more and more chemicals are labeled for use in forages, we have more precautions to take with them.

The main thing grass farmers need to remember is that when companies write labels for their products, they have specific usages and precautions on them for a reason. The problem is that when somebody figures out that a product will do such and such, even though it is not labeled for that use, word gets out. Sometimes this off-label usage will not cause any problems, but often the consequences can be extremely bad.

For example, for years grassy weeds and sedges have been very difficult to control in forage Bermuda grass. Now we have two or three different products we can legally and safely use to keep out most of these problem grasses. Even so, farmers routinely use products that are not only against the label for forage usage, but can have dire consequences if used in excessive amounts. Several toxicity issues in both cattle and horses have been confirmed through the abuse of these products.

Another example of why you should fully read and follow the label has received much press this past summer. It seems that a horse farm gave away their composted manure and shavings from their barn stalls to a local produce farmer who used it as fertilizer. Several days later the produce farmer’s tomato plants started to die. After much investigating and sampling, it was finally discovered that the horse farm had bought hay that had been treated (completely legal and by the label) with a herbicide that had an extremely long residual. This product was sprayed several weeks before the hay was harvested, had been stacked in a barn, fed through the horses, was composted as manure for several weeks, and still had enough residual activity to damage the tomato crop after it was applied. The important thing to remember about this situation is that the herbicide label clearly stated that this would happen! Nobody was clearly at fault in this situation. The hay farmer was not aware that the manure generated by the hay he was selling would be used in a garden. The horse farm did not think there was anything to worry about by giving it away. The chemical company that made the product had the necessary safety precautions clearly spelled out in the label. This was just a sad situation where communication could have prevented this from happening.

In some of our newer products it is important to remember that the reason they work so effectively is that they are active for a very long time. Aminopyralid, Picloram and Clopyralid are three newer chemicals being used in forage herbicides that have an extremely long lifespan after it has been applied. In all of the products that contain these chemicals, the labels clearly state that manure and grass clippings from treated fields are not safe to apply on sensitive crops for one year after applications. These products are completely safe to use on forage grasses, as well as to graze or harvest for hay.

Another example of a disaster that can occur by ignoring the label occurred several years ago in a mid-summer drought. A new herbicide had just come on the market for sandspur and Nutgrass control in Bermuda. The product label stated clearly three different times to not use this product during drought conditions as severe injury could occur to your pasture. The farmer sprayed anyway and almost killed 25 acres of bermudagrass.

The point of this article is not to scare everybody from spraying or to reduce proper herbicide applications, but rather to get forage growers to make sure they fully understand what they are putting out and the importance of reading and following the label.
Bull Behavior and Handling Safety

By: Michelle M. Shooter, Livestock Extension Agent with N.C. Cooperative Extension in Robeson County, adapted from “Knowing Bull Behavior Patterns May Save Lives” by J.W. Schroeder and Humane Livestock Handling by Temple Grandin

Your bull is usually gentle and friendly, but it is important to remember that bulls have bad days too. Bulls account for two percent of the cattle population, but they are responsible for more than half of farmworker fatalities and are considered the most dangerous of all domestic animals. Many deaths are the result of farmworkers being attacked, mauled, rammed, gored, trampled, or pinned against some surface. It is important to recognize your bull’s behavior and to always be aware of his presence.

Producers can decrease the danger of an unruly bull if they use common sense, knowledge, and think ahead. It is also important to remember there are no guarantees when working with an animal that weighs 1,000 - 2,500 pounds, moves up to 25 miles per hour, and makes decisions based on experience and instinct.

The Unlikely Culprit
The bull most likely to attack is the bull calf raised on a bottle by a person. That isolation from other cows leads to a calf’s mistaken identity. The calf sees himself as human. When the calf matures, at 18-24 months of age, he will challenge people in order to be the “boss” of the herd. Isolation-reared cattle are more aggressive and less able to adjust to new social groupings. All animals have to be socialized at a young age, and cattle are not an exception. According to Temple Grandin, a bull that identifies with people may see a person as a rival. It also can act based on improper learned behavior.

Improper learned behaviors can include head butting. Some herds of cattle are very tame and like to be stroked and scratched. If the bull is well socialized with his own kind, this can be done safely. It is best to stroke under the chin or on the back and withers. He must respect your space. If he pushes against you, immediately stop scratching. By taking away the reward, he will realize that he must stay outside of your space if he wants to be scratched. Never play butting games with any bovine; you risk serious injury even if it is unintentional because of the sheer size and power of the animal. Avoid scratching the forehead, because this may trigger the butting instinct.

Orphan bull calves that can’t be raised with other cattle should be castrated to prevent further aggression problems. The best way to prevent dangerous bull behavior is to rear young bulls on a mother cow in a social group with other cattle. Or young bulls at six weeks of age should be penned with calves at the same age. When a young bull becomes old enough to start breeding, he should be moved to a group of dry cows or bred heifers. Bull calves reared in this manner are less aggressive, because they identify with their own kind.

How to Identify a Threat
The threat display often begins with the bull standing broadside with his back arched. The bull then lowers his head and sometimes shakes it rapidly from side to side. He will also flex his neck to show his size. His eyeballs may protrude and his hair may stand up along his back. A bull will often not look at a person prior to attacking, and many people fail to recognize the warning signs.

If an opponent, such as another bull or person, withdraws about 20 feet at this point, the encounter likely will end with the bull turning away. If not, the bull will circle another bull or animal and drop into the flank body position or start head-to-head or head-to-body pushing. If the other animal advances on the aggressor bull with its head down in a fight mode, the two animals likely will get into a short fight with head or horn butting. If the aggressor bull previously subdued the other animal, he likely will withdraw with no further interaction. When a bull shows signs of being threatened, do not run away.

What To Do
The safest thing to do is to look away and slowly back away. Never turn your back to a bull. Strongly consider culling bulls that threaten people. Many farmworkers need training in bull/cow behavior, because they lack the background, attitude, or knowledge to deal with dangerous bulls and fresh cows. Workers need to be aware of signs, always be careful, and observe and study bull behavior; a life may depend on it.
Tips for Winter Livestock Feeding  
By Becky Spearman

Now is the time to plan for the winter feeding season. Proper feeding is essential for good animal husbandry. Analyze hay for its feeding value. Hay varies in nutrient content by the type, maturity at harvest, fertilization rates, and other factors. Bermudagrass hay can average anywhere from 7-14% CP and 50-58% TDN. Fescue hay has 10-15% CP and 55-60% TDN. Livestock need energy, protein, macro nutrients and micro nutrients to meet their daily nutritional requirements for each phase of life. Lactating animals have a greater requirement than dry, gestating animals. Growing animals have an increased requirement also.

The North Carolina Department of Agriculture will analyze your forage for a ten dollar fee. Extension Livestock Agents can help producers sample their hay, send it to the lab, and determine if and how much supplements are needed. Once the forage has been analyzed, ration balancing will determine if supplements are needed. Analyzing your hay is the only way to know the nutrient content.

Evaluate hay and pastures that will be used this winter. Inventory hay supply and determine if you have enough on hand (now is the time to buy hay if you do not have enough to make it through the winter). Weigh several bales to determine the average weight of the hay. Determine the number of days that hay or feed is required. This varies from 90 to 150 days, depending on the climate and the available winter forage. There are several easy ways to estimate feed requirements.

The following is an example of stored feed requirements for a herd of 35 cows and one bull with a winter feeding period of 120 days. This assumes a 1,200 pound cow and 1,800 pound bull. The cows will need 30 pounds of dry matter per day (1,200 lbs x 2.5% of their body weight). The bull needs 45 pounds (1,800 lbs x 2.5%). 35 cows x 120 days x 30 pounds of hay per day = 126,000 pounds or 63 tons of hay. 1 bull x 120 days x 45 pounds = 5,400 pounds or 2.7 tons. The farm needs a total of 65.7 tons of feed. It is best to use a 25% safety factor when determining the amount needed. This example would require 82 tons of hay.

### 2009-2010 Extension Horse Short Course and Clinic Series
Offered by: North Carolina State University
Short course and clinic brochure available at www.cals.ncsu.edu/horse-husbandry/
For additional information, contact your Extension Office or Extension Horse Husbandry, NCSU, Box 7523, Raleigh, NC 27695-7523, phone 919-515-5784, or fax 919-515-8518.

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<td>Holiday Inn Hotel &amp; Suites, Cary and Equine Educational Unit, NCSU</td>
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*Must have completed the introductory level and/or currently be an active horse show judge or judging team coach to participate.

**Must complete application with AQHA Judges Department and receive approval to participate.
Dental care is an important part of the health of your horse. Routine dental care will help extend the life, health and performance of a horse. A veterinarian or equine dentist can perform a dental exam to evaluate your horse for potential problems.

Horses have six incisors in both the upper and lower jaws. They have six cheek teeth on each side on the upper and lower jaw. Horses sometimes have wolf teeth. An important note is that there are a lot of dental changes for the first five years of a horse’s life. At this time, the baby teeth incisors and premolars are shedding and being replaced by permanent teeth. Horses during this time may have problems.

**Signs of dental problems**

There are many signs of dental problems. Some symptoms can be caused by other problems also. Signs include dropping feed when eating, head tilting to eat on one side of the mouth, mouth resistance to the bit and riding, slobbering, whole grain left in fecal material, bad odor from the mouth, head-tossing, difficulty chewing, ulceration of tongue and cheeks, pain when eating, decreased athletic performance, weight loss, and others.

Dental problems can be caused by sharp enamel points, retention of deciduous or baby teeth, wolf teeth, hooks on the first and last teeth, tall/excessively sharp canine teeth, tooth loss, fractured teeth, infected teeth, and malalignment. The next section discusses some of these problems in more detail.

**Sharp Enamel Points**

A horse chews its food in a grinding fashion and normally wears off the surface of the molars. In some situations, the horse does not evenly wear it molars and points can form. Teeth continue to grow throughout the horse’s life and are worn down by contact with other teeth. If the upper jaws are wider than the lower jaws, the teeth may not have direct contact and aren’t able to wear the sharp points down.

Floating removes the sharp enamel points by filing them down or rasping the teeth. Floating is a fundamental part of a horse’s routine care. There are nerves in the teeth, but they are deep below the grinding surface.

**Retention of deciduous or baby teeth**

Deciduous incisors usually shed on their own, but sometimes they fail to shed and the permanent teeth erupt behind the teeth. Retained teeth can cause discomfort that interferes with eating and performance.

**Wolf teeth**

Wolf teeth are small rudimentary teeth in front of the first cheek teeth. These teeth may cause problems with a bit and are usually extracted and floated before introducing a bit during a horse’s training.

**Hooks on the first and last teeth**

The cheek teeth and incisors are constantly erupting and wearing. If the teeth are unopposed, they do not wear and hooks are formed. Hooks can penetrate the hard or soft palate.

**Infected teeth**

The premolars and first molars are usually infected. Infection is commonly caused by bacterial decomposition of feed trapped in the center of the tooth called the infundibula. Infections can also be caused by jaw fractures and periodontal disease.

**Recommendations**

Horses should be checked annually for sharp points or possible problems and their veterinarian should float the teeth as needed. Older horses or horses with a history of teeth problems, may need to be checked more often.
Last week, I received a call from a goat producer who said, “my neighbor who has dairy goats told me that I need to dehorn my meat goats, is this true? My answer, of course was “it depends.” There are a lot of producers who offer great goat advice, but a producer must consider his or her own personal situation before making such a production choice. A lot of dairy goat farmers dehorn goats for safety reasons. It can be dangerous to milk a goat on a stand because your eye is level with the horns. Some meat goat producers dehorn animals because they feel safer when handling them or they like the look of their heads. It may be a good idea to dehorn a meat goat that a child is using to show or to blunt the ends to make them less dangerous. Horned goats often get their horns stuck in feeders and fences. If you breed two polled (born hornless) goats, they could produce hermaphrodite kids that will not be able to produce viable offspring.

On the other hand, you should consider the benefits of leaving horns. Horns offer valuable protection from predators. If a goat does not have horns it can only run from a predator. Also, consider using an all or none approach. If you leave horns on some goats, but not all, the ones with horns will compete with those that do not have them. The goats without horns will probably not get much feed because they may be scared to get close to the feed trough. Many experts believe that horns provide a natural cooling mechanism during the summer. Horns can also leave a handle for an easy way to catch a goat that doesn’t have a collar.

If you decide that horns are not something you want on your farm, it’s a good idea to destroy the horn bud on kids within 7 days of birth. This procedure is called disbudding. Kids can usually bounce back from stress a lot quicker when they are young. Dehorning adult animals can be very difficult and messy. You may want a veterinarian to use anesthesia and perform surgery for all adult goats. It’s always a good idea to get help from someone who is experienced in disbudding and dehorning while you are learning.

There are different techniques that have been used to disbud, but most producers prefer to burn with a hot iron because it is safe and usually successful. An electric disbudding iron with a tip that is 3/4 to 1 inch in diameter can be used. It should be heated until cherry red in color. Carefully follow the recommendations that come with the iron because wattage varies between different pieces of disbudding equipment and the length of time may be different. It’s also not a good idea to use an extension cord because it could prevent the iron from reaching the optimal temperature. The hair over each horn bud should be clipped before the disbudding iron is used. This helps to prevent infection and allows for better contact. The iron should be left in contact with the skin for approximately 8 to 15 seconds. If you see a copper colored ring around the horn bud, the procedure was probably successful. The scab that forms over the place where the iron has burnt out the horn bud lifts off after 5 or 6 weeks and does not leave a big scar. The kid will often return to normal activity once the hot iron has been removed. Scurs or regrowths can be re-burned if necessary, but it is best not to wait until the goat is too big to be held easily. When thinking about dehorning issues, each goat producer must consider their own operation. Dehorning should be a personal decision based on what is best for you, your workers, and your family.
1. How many eggs can a chicken lay per day?

Because it takes 24-26 hours for a hen to construct an egg (adding the albumen, shell membranes and shell) and since chickens have only a single ovary and oviduct, hens are only able to lay an egg a day at the most. If you do not collect the eggs at the same time each day you might encounter a situation where one day you collect no eggs and the next two, but the eggs were laid on different days, just one right after and early previous collection and/or right before a late collection. Hens do not lay two eggs per day.

2. How can you tell if an egg is fertile or not?

It is not possible to tell whether or not and egg is fertile without breaking it open. Once broken open, the infertile egg has a small white dot (germinal disc) on the yolk. If the egg is fertile, the dot looks more like a donut.

3. Is it safe to eat fertile eggs?

You can definitely eat fertile eggs. Fertile and infertile eggs look very similar and you will not be able to tell the difference without breaking them open and looking at the germinal disc (the “dot” as mentioned above). They also taste the same and contain the same nutrients.

4. Can you incubate eggs that have been stored in the kitchen refrigerator?

Eggs stored in a refrigerator typically have reduced hatchability, especially after several days. Hatching eggs are normally stored at 55°F while most refrigerators are at 45°F. It does not mean that the eggs will not hatch, but the likelihood is greatly decreased.

5. How can you tell the difference between a rooster and a hen when they are young?

It is very difficult to tell the difference between male and female chicks. Unless a sex-link cross was used to hatch out the chicks, it typically takes a highly trained professional to sex very young chicks using vent sexing techniques first developed by the Japanese.

The best way to sex chickens in a backyard flock is to watch them grow. As they develop, sex-specific changes occur.

6. What is the cause of crooked toes in chickens?

Most crooked toe conditions are either management or nutrition related. A lack of the vitamin, riboflavin, results in an inward curling of the toes and is called curled toe paralysis. Improper incubation temperatures will increase the incidence of crooked toe, as will inbreeding. A few chickens with crooked toes (3-5 per 100) are not unusual. High yield meat-type birds will have more of a problem with crooked toes, but this generally does not hurt the birds.

7. Are roosters necessary in a laying flock?

No. Roosters are only needed in the flock when fertile eggs are desired. Increasing photoperiods (amount of light per 24 hours) is the factor that stimulates egg production in birds. Usually 16 hours of light per day (natural and artificial) will keep hens in lay.