North Carolina Beef Cattle Field Day

The Mountain Research Station in Waynesville will be hosting the North Carolina Beef Cattle Field Day on **Saturday, July 18, 2015**. This year’s field day will focus on Beef Cattle Research in North Carolina. Lunch will be provided by the Haywood County Soil and Water Conservation District. Please come early to visit with all the vendors at the trade show and to view some of the equipment on display.

Registration is free. For the full schedule of events, please see the agenda below:

8:30 - Registration 12:00 - 1:00 - Lunch
9:20 - Opening Remarks 1:00 - 3:00 - Panel Discussion
9:30 - 12:00 - Program

Forage Management: Extending Your Grazing Season

- Ray’s Crazy Mix - Johnny Rogers, NCSU Research Assistant
- Summer Sorghum Silage Use - Dr Matt Poore, NCSU Beef Cattle Specialist
- Grass/Legume Mixtures - Dr Miguel Castillio, Assistant Professor, NCSU Department of Crop Science

Animal Reproduction: Crucial Steps for Success

**Step 1 - Focusing on Your Bull** (Nutrition and Management Before Breeding)
Dr. Harrison Dudley, NCSU College of Veterinary Medicine

**Step 2 - How Important Is a Short Breeding Season? How to Do It?**

**Step 3 - Why Should I Do a Pregnancy Check?** - Dr. Daniel Poole, Assistant Professor, NCSU Department of Animal Science

Persons with disabilities and persons with limited English proficiency may request accommodations to participate in activities mentioned in this newsletter. Please contact Ethan Henderson at 828-255-5522 during business hours at least 3 days prior to the event to discuss accommodations.
NC Beef Cattle Field Day (continued)

Animal Feeding: How Can I Feed Wet Brewers Grains?

- Research Update on Wet Brewers Grain Trials - Dr. Philipe Moriel, NCSUBeef Cattle Specialist
- How to Store Wet Brewers Grains
- Feeding and Handling Demonstration

12:00 - 1:00 - Lunch

1:00 - 3:00 - Panel Discussion: “ALL BEEF IS GOOD”

- Natural vs. Grass-Fed vs. Pasture-Raised Beef: What is the Difference? Dr Carrie Pickworth, Assistant Professor, NCSU Department of Animal Science
- Traditional and Grass-Fed Cow-Calf Producers - Moderator: Bryan Blinson, Executive Director of NC Cattlemen’s Association

Should you have questions about the event, please contact the Mountain Research Station office at (828) 456-3943 or Ethan Henderson at (828) 255-5522.

Mountain Cattle Alliance Sale
WNC Regional Livestock Center - Canton
August 4, 2015

The next scheduled sale for the Mountain Cattle Alliance will be **Tuesday, August 4**, for September 22 delivery. Cattle consigned to this sale will need to be weaned by July 24. There will also be a sale in October and November. These sales are open to all producers with cattle that qualify on a quality basis.

If you have any questions about this sale or would like more information about upcoming sales, please call Ethan Henderson at 828-255-5522.

2015 Tri-State Beef Conference
Washington County Fairgrounds, Abingdon, VA
August 6, 2015

The Eighth Annual Tri-State Beef Cattle Conference will be held at the **Washington County Fairgrounds in Abingdon, Virginia** on **Thursday, August 6**. This year’s conference will address topics of interest to both stocker and cow-calf producers. The conference will be a one-day event and will include educational sessions covering such topics as beef cattle outlook, extending the grazing season while improving soil health and managing weeds, hoof conformation and selecting breeding stock, receiving programs for stocker producers along with new products and how they are intended to be used, and the importance of a lender relationship. There will once again be virtual tours of operations from each of the three states and then a time of questions and answers with the producers themselves.

“This year’s conference will be one that should add dollars to your bottom line whether you run a stocker or a cow-calf operation,” stated Dr. Andrew Griffith, University of Tennessee Extension Assistant Professor and Extension Livestock Economist.

A trade show will be open during the conference, with many of the organizations involved in the region’s beef industry there for participants to meet and learn more about their products and services.

The conference will begin with registration at 8:00 a.m. and the program beginning at 9:20 a.m. The trade show will open at 8:00 a.m.

**Registration for the conference is $20 through July 30 and $25 after July.**

Cattle will be checked in from 7:00 am until 5:00 pm. The sale will begin at 7:00 pm.

- Steers and heifers sold by hundred weight.
- Calves have to be vaccinated for blackleg and malignant edema.
- Cattle are tagged and weighed as received.
- Grading guidelines:
  - L1 - large frame, average or above thickness
  - M1 - medium frame, average or above thickness
  - S1 - small framed, average or above in thickness
  - LM2 - variable in frame size, thin to average in thickness

**When Will There Be an Answer for Pinkeye?**

By Dr. Michelle Arnold, DVM, University of Kentucky

Pinkeye or IBK (infectious Bovine Keratoconjunctivitis) is a costly disease for cattle producers. The cost of treatment, coupled with the fact that affected calves wean off on average 15-30 pounds lighter and bring less at the market due to corneal scarring, make this disease a significant economic consideration. Despite all we know about how pinkeye develops, control programs are often only partially successful. In particular, pinkeye vaccines seem marginal at best in preventing outbreaks during the summer. It is important to understand that many factors are involved in the development of pinkeye including environment, season of the year, concurrent disease, the strain of bacteria involved, and the animal's immune system. Once pinkeye begins, it is highly contagious and can spread rapidly within the herd. Careful attention to control of contributing factors and prompt treatment in the face of an outbreak are necessary to reduce the spread and limit the damaging effects of the disease.

It is widely accepted that the most important risk factor in pinkeye is the bacteria *Moraxella bovis* or *M. bovis*. It attaches to the eyeball (cornea) by hairlike projections called “pili” and produces toxins that cause the eye to ulcerate and melt (liquefy). It is against this Moraxella organism that we vaccinate with commercial pinkeye vaccine products such as Piliguard, Vision 20/20, Alpha 7/MB-1, I-Site XP, Pinkeye Shield, Ocuguard and SolidBac. One reason for vaccine failure is a recently discovered second strain of bacteria, *Moraxella bovoculi*, that is now being isolated from pinkeye cases but is not included in any commercial vaccine preparation. Consequently, we are not getting full protection against the bacterial causes with commercial vaccines. The two most important contributing factors to pinkeye following bacteria are UV light (sunlight) and face flies, both of which can damage the corneal surface and allow the Moraxella species to attach to the surface of the eyeball and grow. Face flies also serve as vectors to spread the bacteria throughout the herd. One study found the Moraxella bacteria can survive on the legs of face flies for up to three days. Other risk factors that can initiate infection by eye irritation include dust, trauma or injury, wind, tall grass, thick-stemmed hay, high ammonia levels and stress. Many different combinations of these factors can occur within one herd at one time. For example, a combination of *M. bovis*, face flies and sunlight may cause pinkeye in one group of cattle in one pasture while tall grass with seed heads, *M. bovoculi*, and sunlight may combine to cause problems in another group on a different pasture. In this situation, good fly control and vaccination will significantly decrease the cases of pinkeye in the first group of cattle but the second group will not show much improvement. This explains why in some years control measures seem to work well and in other years they seem to be completely ineffective. Vaccination may reduce the incidence of disease but seldom stops it completely, especially in herds where pinkeye is associated with both *Moraxella bovis* and *Moraxella bovoculi*.

As producers, what can you do to prevent pinkeye? The best plan is to reduce or remove as many risk factors as possible in order to keep the eyes healthy and better equipped to fend off disease. An overall good level of nutrition, adequate trace mineral intake, a comprehensive vaccination program, and parasite control are all exceptionally
important in improving cattle’s ability to fight off any disease process (not just pinkeye). Prevent eye irritation with good face fly control, mow tall grass, and reduce sources of stress (such as overcrowding/overgrazing) if possible. Control face flies with ear tags impregnated with insecticide and topically administered insecticides by way of back and face rubbers or dust bags they must walk under to get to water or mineral. Provide shade to protect from UV rays. Clean drinking water (instead of stagnant pond water) is critical because the precorneal tear film is essential in eye defense mechanisms. Intake is greater with clean water and this helps provide plenty of fluid in the eye, especially in dry, dusty, and/or windy conditions. Vaccination may prove beneficial, depending on the bacteria involved. In the face of a pinkeye outbreak, preventing transmission is the single most important factor in controlling the disease. Immediate detection and isolation of affected animals coupled with prompt treatment are necessary to reduce the spread and limit the damage to the eye. Long-acting antibiotics such as LA-200, Draxxin, Nuflor, and Excede are recommended to treat the infection and can often be effective with a single dose. Treatment also reduces the duration of the carrier stage when recurrence and transmission most often occur. Your veterinarian can take cultures from affected eyes and send the swabs to one of several laboratories that can create a vaccine tailor-made for your farm (known as an “autogenous vaccine”). All cultures must be taken early in the course of disease; preferably when the eye is just beginning to tear (water) excessively.

Pinkeye is a tremendous summertime headache in Kentucky. The keys to prevention of an outbreak are maximizing your herd’s immune status, minimizing the concentration of the Moraxella bacteria, and maintaining an irritant-free environment. Work with your veterinarian to devise an appropriate program for your farm.

**Aerating Pastures, Is It Worth It?**

Cattle producers in Kentucky rely on cool-season perennial grasses to provide the majority of forage for their cattle operations. Grasses, such as tall fescue, can be grazed for many years without any type of tillage tool being used on the field. Concerns exist that traffic from cattle and machinery in pastures and hayfields may result in soil compaction, which could limit water infiltration and result in reduced forage yields.

Over the last several years, many claims have been made which suggest substantial increases in forage yields after aeration of pastures or hayfields. Aerator machines are tractor-drawn with varying designs, such as coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler. Aerators are designed to disrupt the soil and loosen any soil compaction in the upper soil surface, allowing water to infiltrate the soil rather than run off.

The University of Tennessee has conducted experiments at both the Spring Hill and Knoxville experiment stations on fields with tall fescue. Each experiment received 60 pounds of nitrogen/acre during spring green up, and the same type of harvesting equipment was used at each location. The comparison between these two sites were performed over a two-year period. A common spike aerator was pulled across the field each spring at both locations, and an additional aeration treatment at Spring Hill in the fall each year. These experiments showed no difference in forage yield between aerated and non-aerated areas.

“**Aeration Equipment may be beneficial where severe compaction problems are present.**”

Additional on-farm demonstrations with aerated and non-aerated strips of tall fescue on four farms in south central Tennessee revealed aeration only provided a forage yield advantage of 214 pounds of dry forage per acre. The cost of aeration was estimated at approximately $10 per acre, and it was concluded that aeration did not cover the additional expense.

Most of the research conducted on the value of aerators for pasture and hay is not encouraging. This does not mean that aeration will always be ineffective. The possibility exists for aeration equipment to improve water infiltration and increase forage yield where there is severe compaction problems from cattle trampling or heavy equipment traffic.

Use this link for information regarding the University of Tennessee Research:
http://utbfc.utk.edu/Content%20Folders/Research%20Projects/Forage%20Research/Publications/spike.pdf
Timely Tips
Dr. Roy Burris, Beef Extension Professor, University of Kentucky

Spring-Calving Cow Herd

- Consider cutting warm-season grass pastures for hay, if reserves have not been restored yet.
- Fescue pastures tend to go dormant in July and August, so look for alternatives like warm-season grasses during this period of time. Try to keep the young calves gaining weight. Go to pastures which have been cut for hay to have higher quality re-growth when it is available.
- Mid-July (when bulls are being removed) is a good time to deworm cattle; use a product that is effective against inhibited ostertagia. Re-implant calves which were implanted at birth if the type of implant and amount of time indicate. Calves which haven’t been vaccinated for blackleg should be. Spraying or using a pour-on for flies while cattle are gathered can supplement other fly control methods. Remember to work cattle early in the morning when it is cool and handle them gently to minimize stress.
- Continue to watch for pinkeye and treat if necessary. Minimize problems by clipping pastures, controlling face flies and providing shade. Monitor the bulls’ activity and physical condition as the breeding season winds down.
- Remove bulls from the cow herd by the end of the month and keep them away from the cows. A short calving season can concentrate labor during the calving season; group calves by age so that it is easier to find a convenient time to vaccinate, castrate, dehorn, etc.; and provide a more uniform group of calves at market time.

Fall-Calving Cow Herd

- De-worm cows in mid-July with a product that is effective against inhibited ostertagia.
- Fall-calving cows should be dry and pregnant now. Their nutrient needs are minimal, and they can be maintained on poor pasture to avoid over fattening. Keep a good free-choice mineral mix available at all times. You can use a lower phosphorus mineral supplement now, if you want to save a little money. These cows are regaining body condition after a long winter feeding period.
- Get ready for fall calving and plan to have good pasture available at calving and through the breeding season.

Stockers

- Sell heavier grazing cattle before rate of gain decreases or they get into a heavyweight category. This will also relieve grazing pressure as pasture growth diminishes. They can be replaced with lightweight calves after the pasture recover.
- Lighter cattle which are kept on pasture need to be rotated to grass-legume or warm-season grass pastures to maintain a desirable level of performance. Re-implant these calves and deworm with a product that is effective against inhibited ostertagia.

General

- Have forage analyses conducted on spring-cut hay and have large, round bales covered. Begin planning the winter feeding program now. Most of the hay was cut late due to a wet spring, but a dry period permitted it to be put up without getting rained on—so, overall, not a bad haying season.
- Be sure that clean water is always available, especially in hot weather. Make routine checks of the water supply. Cattle need 13 to 20 gallons of clean water in hot weather.
- Maintain a weed control program in permanent pasture and continue to “spot-spray” thistle, honey locust, etc.
- Check pastures for downed wild cherry trees after storms (wilted wild cherry leaves are toxic to cattle).
- Start soil testing pastures to determine fertilization needs for this fall.
2015 Upcoming Events

Jul 18  NC Beef Cattle Field Day, Mountain Research Station, Waynesville

Aug 4  Mountain Cattle Alliance Sale, WNC Regional Livestock Center, Canton

Aug 6  Tri-State Beef Conference, Washington County Fairgrounds, Abingdon, VA
        8:00-Registration - 8:00-Trade Show opens - 9:20-Program begins

Sep 9  Feeder Calf Sale, WNC Regional Livestock Center, 474 Stock Dr, Canton

Sep 11-20  NC Mountain State Fair, WNC Agricultural Center, 1301 Fanning Bridge Rd, Fletcher