Regional Beef Notes
Fall 2015

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Winter Feeding: Corn Stalks and Other Forages

Jessica Morgan, Extension Agent, Anson County Center

This year has been one of extremes: drought and then excessive rainfall. Neither of those conditions is conducive to making hay and that has put some folks in a bind. A lot of folks have had the opportunity to bale some corn and/or sorghum for winter feeding. Consider the following when feeding cattle this winter:

- Corn stalks are generally low quality feed, with a range of TDN from 46-54% and Crude Protein from 4-6%. Corn that was drought stressed and not combined will have somewhat higher nutritional value than just the stalks but will be very variable.
- Testing these feeds for quality before feeding is critical. Nitrates, especially in drought stressed crops, can accumulate quickly and need to be tested before feeding to any pregnant or lactating animals.
- Nitrate testing is free through the NCDA Forage and Feed Testing Lab in Raleigh. Take core samples from 20% of bales. Keep fields separate and labeled and place in gallon plastic bag. You can download the form and fill out at http://www.ncagr.gov/fooddrug/forms/documents/ForageForm.pdf, or visit your local Extension Office for assistance.
- Full nutritional analysis of feeds is $10/sample and follows the same sampling procedures. Again, contact your local Extension Office for assistance.
- Corn stalks and other coarse crops are less weather resistant than grass hay. It is strongly recommended that this type of forage be protected from the rain by stacking in a barn or covering with plastic or tarp.
- In general, tighter and larger bales stand up to outside storage better than looser or smaller bales. Twine tied bales will take up moisture more readily than net wrapped bales. Elevating bales on tires or pallets will reduce spoilage in poorly drained areas.
- Because corn stalks are low quality feed, they will need supplementation in almost all situations. Feeding free choice corn stalks, most lactating cows (~1200 lbs) will still need 12 lbs corn gluten feed. Corn gluten is high in phosphorous which needs calcium to balance the ration. Limestone, top dressed at ½ pound will meet the needs. Another option is 5 lbs. ground corn and 3.5 lbs soybean meal for supplementation. All cows should have access to a high quality free choice mineral supplement. Assume 15% waste on the free-choice feeding of corn stalks and other forages.
- Producers should always monitor body condition, especially during winter months. A cows' body condition will give an accurate depiction of their plane of nutrition. If you see body condition deteriorating, change the ration or start a higher plane of nutrition in the supplemental feed as soon as possible.

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Herd Health: Tips to Reduce Risk on Farm

Jessica Morgan, Extension Agent, Anson County Center

Herd health should be a top priority for livestock producers. Pathogens continually mutate, and with new vaccines, wormers, and antibiotics, it's important to keep up with the most up to date information. One piece of information that is not imprinted in every producer's head is when to give vaccinations. Understanding the proper vaccines and wormers is half of the battle; the other half is knowing *when* to give them. The most important end goal is to reduce the incidence of sickness and disease in your herd and prevent negative effects on the profitability of beef operations. Consider these steps to reduce the risk of disease on the farm:

Prevent exposure to disease: The health status of purchased animals are often times unknown, utilizing quarantine procedures should be put in place to decrease the likelihood of disease introduction.

Prevent Environment from Becoming Disease Host: Moist, damp areas can become host environments for disease causing organisms. Add a lot of cattle and the risk become greater. These could be calving areas, winter feeding areas, watering areas, low-lying shady spots.

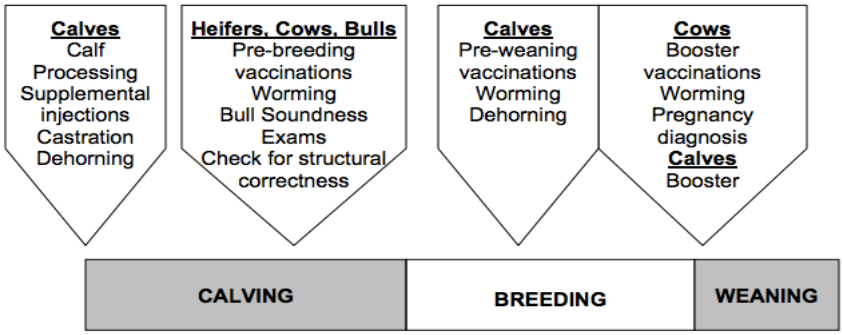
Keep Disease Resistance High: Nutrition, vaccination, management and housing should work together to be properly managed and minimize stress which is critical for immunity.

Observe, Observe, Observe: Never assume cattle take care of themselves or will get over it. Constantly keeping an eye on your livestock will help find sick animals immediately.

If Disease Occurs, Prevent its Spread: When animals are sick, segregate, diagnose, and treat accordingly.

Additionally, a quality vaccination protocol is essential to reduce the risk of certain diseases. For this time of year in our world for fall-calving, the 30 days Pre-breeding round of vaccinations is coming soon.

Figure 1. Herd health plan schedule for replacement heifers, cows, calves and bulls during one complete production cycle.



The following is a Herd-Health Plan for Adult Animals:

1. Pre-Breeding- vaccinate 30 days before the breeding season begins

a. Replacement Heifers

- IBR, BVDV, BRSV, PI3 virus vaccine (if using a modified live vaccine, make sure animal is open, otherwise abortion will occur.)
- 7 –or 8 –way Clostridium (Blackleg)

b. Cows

- IBR, BVDV, BRSV, PI3 virus vaccine (if using a modified live vaccine, make sure animal is open, otherwise abortion will occur.)
- 7- or 8-way Clostridium (Blackleg)
- Check for soundness (eyes, teeth, feet, legs, and udders)

c. Bulls

- Breeding Soundness Examination
- Reproductive vaccines (Leptospirosis, Vibriosis and/or Trichomoniasis if needed)
- 7- or 8- way Clostridium (Blackleg)
- IBR, BVDV, BRSV, PI3 virus vaccines
- Check for soundness (eyes, teeth, feet, and legs)

2. Pre-weaning

a. Cows

- Pregnancy diagnosis
- Check for soundness (eyes, teeth, feet, legs, udders)
- Internal parasite control
- External parasite control (flies)

Hybrid Vigor: Hype or Legit?

Jessica Morgan, Extension Agent, Anson County Center

Livestock specialist Clay Wright defined hybrid vigor as "the added advantage in performance of a crossbred over the average of its purebred parents." There is more to hybrid vigor than just taking a crossbred cow and breeding her with any old bull. Hybrid vigor is fully expressed when you use bulls and cows of known ancestry. Dr. Jim Sanders at Texas A&M has shown a 10-20% increase in calf crop born to f1 cows when compared to straight-bred cows. The advantage will fall dramatically when F2 (F1 x F1bred cows) or greater cows are used.

So what does this mean? It means that crossbred cows lose their hybrid vigor over time as their pedigrees get muddied. A two-breed rotational cross is a relatively simple and popular form of crossbreeding. In this system, two breeds are mated and the resulting female offspring are kept as replacements and mated back to one of the breeds. In following generations, females are bred to the opposite breed of their sire. For example, say a producer picks Angus, for mothering ability, and Simmental, for muscling and added pounds. They would cross to make 1/2 Angus, 1/2 Simmental females who were then bred to Angus, the resulting calves would be 3/4 Angus, 1/4 Simmental. These females would then be bred to Simmental bulls. For their entire lives, females would be mated to the bull opposite their sire. Over several generations, 67% of the maximum amount of heterosis is realized in the calf crops. The most fundamental sire selection decision is choice of breed. Choice of breeds to be used in the cross will depend on several factors, including resources available and the marketing program for the calves. Considerable differences between breeds exist and can be effectively utilized in crossbreeding programs. Optimum performance rather than maximum performance is desired for all economically important traits. For this reason, 1/2 to 3/4 British x 1/4 to 1/2 Continental females tend to optimize mature size, milk production, and adaptability for many North Carolina producers. For more information on developing a crossbreeding program, contact your local Extension Agent.

Crossbreeding Beef Cattle. Greiner, 2009.
Heterosis…. Hype or Legit? Wells, 2015.

Estrus Synchronization Planner

Teresa Herman, Extension Agent, Iredell County Center

Uniform calves are the key to improving the beef herd. In order to get that uniformity, estrus cycles can be synchronized to breed and calve in a very short window of time. This process can be a little intimidating but there are a few tools available to make synchronization less complicated.

One easy to use example is the "Iowa Beef Center Estrus Synchronization Planner". This website is available to anyone and is very user friendly. You can download the planner, which opens as an Excel spreadsheet. In the planner worksheet tab, you type in the approximate dates and times that you want to breed the cows. You then choose the synchronization method that best suits your operation. From this information, the Estrus Synchronization Planner calculates backwards, the dates and times that certain procedures must be performed.

For example, if you wanted to breed heifers on December 1st using Fixed Time AI, CIDRS and injections would be given on November 21st. The second round of injections and CIDR's would be removed on November 28th. This synchronized breeding would have cattle calving around September 7, 2016.

A good program would then follow up with blood testing or palpating cattle after 30 days to determine pregnancy. Breeding soundness exams should be performed on clean up bulls as well. For more information, contact your local extension agent or go to http://www.iowabeefcenter.org/estrus_synch.html.

Upcoming Events

Stanly County Cattlemen's Meeting ..... **October 29**
Stanly Co Agri-Civic Center—6:30 pm Creep Feed Management, Please RSVP
Union County Bull Sale ..... **December 5**
Anson County Cattlemen's Association Christmas Meeting ..... **December 8**
Stanly Select Bull Sale ..... **January 2**
NC Cattlemen's Annual Conference, Hickory, NC ..... **February 25-27**

Persons with disability or persons with limited English proficiency can request accommodations by contacting Jessica Morgan, Agriculture Agent, 704.694.2415, Fax 704.694.2248, or e-mail jessica_morgan@ncsu.edu at least five days prior to any event listed in this newsletter.

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