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## EXTENDING THE GRAZING SEASON

by: *Beecher C. Allison, Extension Livestock Specialist*

The major expense in beef cattle production is feed costs. One of the best ways to reduce cost is to decrease the number of days during the winter that cattle require feeding, therefore reducing the amount of stored or purchased feed required. The most economical way of accomplishing this is to extend the fall/winter grazing season by stockpiling and grazing tall fescue. Decreasing the length of time hay must be fed will decrease the expense of harvesting, storing and feeding hay.

Fescue can be stockpiled by grazing or clipping the forage close in early August, applying approximately 60 pounds of nitrogen per acre in mid to late August, and then keeping the cattle off of this area to allow the fescue to grow and accumulate. It will produce one to two tons of dry matter per acre before frost. Stockpiled tall fescue is nutritious because the fall growth is more leafy than spring growth and maintains high quality throughout the fall and early winter. As the temperature declines, fiber production is decreased, while forage digestibility and crude protein levels remain relatively high. Also, sugars are higher in tall fescue during the fall and early winter than in the summer.

Stockpiled tall fescue protein levels should remain above ten percent and TDN above sixty percent into the winter. This is in contrast to stockpiling during the spring when quality rapidly decreases with maturity because of the high rate of fiber production in the spring.

If tall fescue fertilized with 60 pounds of nitrogen produces 3,000 pounds of dry matter this would be equivalent to three large round bales of hay. This amount of hay would feed one cow approximately 100 days. The cost of fertilizer would be approximately twenty-five dollars (\$25.00) while the cost of three bales of hay would be sixty to seventy-five dollars (\$60.00-\$75.00). Therefore, the cost of feeding a cow for 100 days on stockpiled fescue could be less than half that of feeding round baled hay.

If there is the possibility to accumulate tall fescue and let the cow do the harvesting rather than bearing the extra expense of harvesting forage and hauling it to her then this is good economics. We are blessed to have a productive grass like tall fescue available and should make the maximum use of it. ■

## Upcoming Events...

### *For the year 2000*

- Aug 16 NC CBP Training, NCSU
- Aug 18 Surplus Breeding Sheep Sale  
Clay Center, NE
- Aug 19 NC Polled Hereford Field Day  
McCoy Polled Hereford, Cove City
- Aug 26 NC Angus Assn Field Day  
Deep Creek Farms, Yadkinville
- Sept. 8-17 NC Mountain State Fair, Fletcher
- Oct 13-22 NC State Fair, Raleigh
- Nov 10 NC BCIP Forage Bull Test Sale

### *For the year 2001*

- Jan 6 Waynesville NC BCIP Bull Sale  
Waynesville
- Jan 13 Butner NC BCIP Bull Sale  
Oxford

## 2000 Feeder Calf and Yearling Cattle Sales

by Dale C Miller

Just a reminder that the Feeder Calf & Yearling Cattle Sales will be starting back in August. You can also access the information from the EAH Marketing Web site at:

[http://www.cals.ncsu.edu/an\\_sci/extension/animal/market/fallfeedersale/2000/feeder00\\_schedule.html](http://www.cals.ncsu.edu/an_sci/extension/animal/market/fallfeedersale/2000/feeder00_schedule.html) ■

## New Article Available on the Web!

### Nitrate Poisoning and Nitrate Management for Beef Cattle Producers

by Matthew H Poore

A new publication is available to help beef producers and their advisors manage high nitrate levels in forage crops. This is a comprehensive publication that covers how high nitrate occurs in forages, how to prevent it from being high, and how to manage the feeding of high-nitrate forages.

We are seeing more and more high-nitrate hay and pastures and to prevent losses, producers should become familiar with how to manage nitrate.

The publication is available as a PDF file on the Animal Husbandry web site, and hard copies can be obtained either from our office or from Communication Services.

[http://www.cals.ncsu.edu/an\\_sci/extension/animal/nutr/ahnutr.html](http://www.cals.ncsu.edu/an_sci/extension/animal/nutr/ahnutr.html) ■

## New Beef Fact Sheet

[Embryo Collection and Transfer Options for Beef Producers](#)

by Kevin J Rozeboom, Ph.D. ■

## NC Certified Beef Production Training

by Dale C Miller

A number of new livestock agents have begun their careers with NC Cooperative Extension in the past two years. Most of these agents have not had a training opportunity concerning the NC Certified Beef Production (NC CBP) program, a statewide effort to improve producer management practices which impact beef quality. A training session targeting relatively new livestock agents, or those who have missed the previous NC CBP training sessions, has been scheduled for Wednesday, August 16, 2000 in Raleigh. This session will be held in Room 212 Polk Hall and will begin at 1:00 p.m. We will provide training materials and supplies for your use during and after the session.

Although our attempts to develop marketing channels for certified calves have been mostly fruitless, the program has been highly successful in raising producer awareness of the impact of management on beef quality. Over 3000 NC beef producers saw the Beef Quality Assurance (BQA) display presentations and committed to improve management practices. Over 1400 producers received detailed BQA training by livestock agents across the state and of these, over 800 producers passed a written exam and are registered as "NC Certified Beef Producers."

We are optimistic that continued development of alliances in the beef industry will increase the demand for preconditioned calves and justify the associated costs of on-farm management efforts. Several regional alliances are currently operating in the state and producers are pleased with their results.

Please send an e-mail to [Linda\\_Kern@ncsu.edu](mailto:Linda_Kern@ncsu.edu) to let us know if you plan to attend the session on August 16. So far we have 6 signed up. n

## Injection-Site Audit

by Roger L McCraw



It is always rewarding to see progress and improvement in an area one has been working to improve.

In 1991 an audit of top sirloins indicated that 22.3% had an injection site lesion. Beef Quality Assurance programs across the country addressed this issue with producers. Our NC Certified Beef Producers program emphasized it as well. It was a problem that needed to be corrected immediately and it was one that producers could correct. All that was needed was an educational program demonstrating what the problem was, what causes it, and how to implement a health management program in a manner to eliminate the lesions.

Extension did the education. Producers responded. Since 1991, steady, consistent progress has been made. The incidence in an audit conducted in March of this year had declined to 3.0%. We need to have a 0% rate and we can achieve that.

You may view a [graph](#) that shows the progress made.

Keep up your educational efforts—they do have an impact! ■



[Past EAH e-Newsletters](#)

## Prussic Acid Poisoning

by Beecher C. Allison

Hydrocyanic acid, commonly referred to as Prussic Acid, is found in both cultivated and native forages. There are a number of plants cattle may come in contact with that have toxic amounts of prussic acid under the right conditions. Most of the plants containing prussic acid are quite palatable, increasing the chance of livestock ingestion and poisoning. The cyanogenic plants most likely to cause problems because of their wide distribution are wild cherry, sorghum, sorghum-sudan crosses and Johnsongrass.

Under normal conditions prussic acid is not a major problem, however, conditions that interfere with normal growth, such as drought, frost, heavy trampling or physical damage, will cause an increase in the amount of free prussic acid in the plant, therefore increasing the chances for toxicity upon ingestion. Plants of the sorghum family may have toxic levels of prussic acid in new growth following one of these conditions. Heavy nitrate fertilization followed by abundant rainfall may also increase the prussic acid level of the plants. Fatal prussic acid poisoning may also occur from the ingestion of wilted leaves from wild cherry.

Prussic acid is an inhibitor of the normal breathing process and cattle literally die from lack of oxygen. The typical symptoms of prussic acid poisoning are nervousness, abnormal breathing (shortness of breath), convulsions (trembling or jerking muscles), blue coloration of the lining of the mouth, extreme pupil dilation of the eyes and a cherry-red color of the blood upon postmortem examination. Prussic acid poisoning can be very rapid and the

first sign of the problem may be that some of the animals are found dead.

Animals in the early stages of prussic acid poisoning may be saved by intravenous injection with a combination of sodium nitrate and sodium thiosulfate or methylene blue if administered in time.

Prussic acid poisoning is not cumulative and upon removal from the forage source animals not showing evidence of being poisoned will likely not be adversely affected. The most important thing is to know about the possibilities of prussic acid poisoning and manage these plants correctly.

The following points should be kept in mind when dealing with the potential problem of prussic acid poisoning:

- **Graze sorghum or sorghum-cross plants only when they are at least 15 inches tall.**
- **Don't graze plants during or shortly after drought when growth is severely reduced.**
- **Do not graze wilted plants or plants with young tillers (shoots).**
- **Do not graze for two weeks after a non-killing frost.**
- **Do not graze after a killing frost until plant material is dry (the toxin is usually dissipated within 48 hours).**
- **Do not graze at night when frost is likely.**
- **Delay feeding silage for 6-8 weeks following ensiling.**
- **Don't allow access to wild cherry leaves, whether wilted or not. ■**

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# How Will Structural Changes Affect NC Cattlemen?

by Dale Miller

Recent development of branded beef product lines, particularly by packers and large retail grocery chains, along with rapid development of electronic trading sites for live cattle and beef products, are creating dramatic structural changes in the beef marketing process. Unlike many of the branded programs developed by small, start-up companies in the 1980's, current programs have the support of huge corporations with years of experience, technical expertise and considerable financial depth. Many of the major grocery retailers have developed, or are in the process of developing, branded beef lines as a substitute for generic beef. These chains hope to differentiate their branded products from generic beef with improved quality and consistency. Customers who are pleased with these improvements in their main course purchases are expected to return to the chain more often, rather than competing chains, to purchase main course selections as well as other items in their routine shopping bundle. This marketing concept has created a race among retailers to develop consumer loyalty to branded beef lines.

These programs require the coordination of cattle back down the supply chain, and in many cases, back to their genetic source. Genetically superior live cattle supplies must be available in adequate quantities to meet the chains' retail supply needs. These needs are driven by initial consumer reactions to the new branded beef products, the chains ability to re-supply retail outlets if the brand is successful, and the long term ability to actually maintain a detectable difference in product quality, thus perceived value, in the minds of the consumer.

Packers have realized differences in carcass value for some time and are now promoting specific lines of beef products as well. Branded products allow packers to charge premiums for higher quality

carcasses. One of the four major beef packers recently noted that over 50% of beef profits came from only 15% of their product.<sup>(1)</sup> This financial incentive, derived from superior carcasses, is a primary factor in packer efforts to capture a larger percentage of genetically superior cattle. IBP Inc., the largest meat producer in the world, recently announced the introduction of the "Thomas E. Wilson" brand, a prepackaged line of fresh beef and pork products designed to meet consumer demands for quality and convenience.<sup>(2)</sup> As the nations largest beef packer, IBP's success or failure with this line can have far reaching impacts on the beef industry.

In an attempt to supply a portion of the packer demand for quality cattle and protect their respective interests, Consolidated Beef Producers, a non-profit marketing organization representing beef cattle feeders in five southwestern states, plans to coordinate finished marketings to plants using a grid system. Marketing rights will be exclusive to the organization. They have recently reached their goal of 750,000 head committed to the program,<sup>(3)</sup> and this is only one example of many marketing arrangements being made by cattle feeders and packers.

Along with the introduction of branded beef lines, the rapid acceptance and use of electronic commerce in homes and businesses has created new marketing opportunities for cattlemen and associated industry all along the beef production chain. The recent introduction of an on-line auction system by eMerge Interactive Inc. of Sebastian, Florida, along with their acquisition of several major cattle backgrounding operations in the southeast, has changed the overall

structure of stocker and feeder cattle movement in the southeastern US. This organization offers a large array of cattle services on-line including current market information, buying and selling cattle, buying products and has plans for a number of management tools for various phases of the industry.

In addition to new firms establishing electronic sites for cattlemen, a number of large packers have similar plans. Excel, along with IBP Inc., and Farmland Industries, Inc., recently announced plans for a joint venture to sell beef, pork and poultry through the internet.<sup>(4)</sup> Pork and poultry giants including Smithfield Foods Inc., Tyson Foods Inc. and Gold Kist Inc. join them in this effort.

As more retail chains enter the branded beef marketing process and as packer branded programs grow, the demand for genetically superior cattle will be driven higher, thus increasing the price difference between superior and inferior cattle. This change will likely impact all cattlemen, depending on the desirability of cattle they produce and the rate at which branded programs are accepted. Electronic marketing of cattle and production equipment will increase rapidly, offering local producers new opportunities for both purchases and sales. Consumers who sample these products and are satisfied that improved quality is worth the additional price will likely become repeat buyers. However, negative experiences with branded products will also carry repercussions. Look for new branded products in your local grocery and follow related articles in the popular press.

- (1) Keith Belk, Colorado State University, Emerging Technologies Forum, Beef Improvement Federation Meeting, Wichita, Kansas, July 2000.
- (2) Feedstuffs, April 24, 2000
- (3) Beef Business Bulletin, Volume 23, Number 22, August 4, 2000
- (4) Feedstuffs, April 17, 2000