

# Livestock Links

A Statewide Newsletter for Alabamians

Spring 2009

## Forty Years of Finishing Cattle

Darrell Rankins, Jr.,  
Extension Animal Scientist

Mr. Bob Hamilton of Cusseta, Ala., joined his father in the family farming operation in the late 1960s and has been finishing cattle ever since. Through the years, Bob has maintained about 300 brood cows and routinely fed the steers and most of the heifers until slaughter. In the early years, the cattle were slaughtered in Montgomery by Frosty Morn' and then later at the Morrill plant. To accomplish this, the calves were fed on the farm in Cusseta, utilizing corn and corn silage. Bob is most likely the only farmer in Chambers County who has planted a corn crop every year for the last 40!

In the late 1980s and early 1990s, Bob had to phase out of finishing the cattle in Cusseta on his own corn and instead send them to Kansas and have them custom-fed on their corn. This change was necessitated by the lack of slaughter facilities in Alabama and in the Southeast as a whole. Through the years, he has maintained a herd of red cows, predominantly Red Angus. There have been numerous other breeds of bulls used, but the base herd has stayed moderate in size with a focus on feedlot performance by the calves. In addition, Bob has bought numerous cattle through the years to feed in the Kansas lots.

Bob has experienced several good years scattered over the last 40 years of selling fed cattle, but he has also experienced some bad years. Like all other beef cattle producers at the time, the dairy



Bob Hamilton looking over some newly arrived stocker calves

buyout nearly doomed him. Through it all he has been able to make his living producing beef from a tract of farmland in Chambers County, Ala. The farm not only provided for his family's day-to-day expenses, but it also provided enough income to put their three children through college without debt. A fact that both he and his wife are quite proud of.

The beginning of the new century brought several changes to Mr. Hamilton's farming operation. Three consecutive drought years ('06, '07 and '08) resulted in failed corn crops at a time when input costs were at all-time highs. Because Bob winters his cows on corn silage and depends on the shelled corn as a supplement, he has had to purchase more feed than ever before. This past decade has also been one for extreme volatility in the marketplace. The most glaring problem Bob has had to deal with is lack of farm labor. Bob indicates, "If I could get dependable labor I would still have my cows." In 2008, Bob liquidated his cow herd. He has been frustrated with trying to harvest silage and feed 300 cows through the winter without good help. Thus, he made the decision that he wasn't getting any younger, and the available labor force wasn't getting any better, so it was time for a change.

As most of you might surmise, a person who has been tending to 300 cows for his entire adult life is not likely to get completely out of the cattle business. Bob's plans for the future include moving into the stocker cattle business. This will allow him to scale back his corn production to producing shelled corn, rather than silage, and bringing stocker calves onto the farm at times when he can get the work accomplished, thus circumventing his problem with lack of help. Currently, Bob has about 130 calves that were purchased this winter and will be sold as two loads later this summer.

*(Continued on page 2)*

Mr. Bob Hamilton certainly personifies an American cattleman. He is resilient, forward-thinking, an independent businessman, and a true pillar of the community. In today's American economy, he is one of the few pulling the wagon while scores of people ride the wagon. When asked about his thoughts on the future of agriculture, he said, "I'm not sure how a young person could ever enter the business today." In addition to the many input costs associated with beef cattle production, Bob points out the important but often overlooked costs associated with self-employment, including health insurance. It would certainly be a good use of a young person's time to pay a visit to Mr. Bob Hamilton for some advice on being a sustainable producer in the beef cattle industry.

## Early Season Control of Musk Thistle Is Easier on the Wallet

**Henry Dorough**

Regional Extension Agent, Animal Science and Forages

Springtime is just around the corner. This is a busy time for most livestock producers, who are preparing their pastures and hayfields for the warm growing season. This is also the time of year when I begin fielding hundreds of calls about musk thistle. Musk thistle is an extremely noxious thistle occurring on roadsides, fallow and abandoned fields and, unfortunately, in many pastures and hayfields. This spiny, biennial weed will germinate and grow unnoticed as a rosette until it bolts and begins to form flowers later in the spring. Typically, flowering is when many people take notice and look for solutions to their thistle problem. Unfortunately, once this weed begins to flower, there are limited options for stopping seed production.

The best treatment timing for controlling musk thistle is when the plant is in the rosette stage and most warm-season pasture and hayfield grasses are dormant. Spraying thistle in the fall and late winter are ideal because many of the seed produced during the previous summer have germinated and it is easier to ensure good spray coverage when the grasses are dormant. Better yet, fall and late winter treatments are usually less expensive because the small, younger plants are easier to control with lower herbicide rates. In general, older and more mature weeds require higher, more costly herbicide rates for good control.

Table 1 lists products currently labeled and recommended for control of musk thistle. The rates listed in the table will control musk thistle while it is in the rosette stage. Higher rates will be required later in the season when the plants begin to develop a flower stalk. Cost per acre for the listed products is based on a recent price quote from a local farm supply store.

Grazon P+D, Forefront R+P and Milestone will provide excellent control throughout the growing season, typically with one application at the rates listed in table 1. These products will also control other problem thistles in the rosette stage such as milk thistle and yellow thistle. The 2,4-D products, whether in

**Table 1. Recommended Products for Control of Musk Thistle**

Product Name	Rate for Early Control	Estimated Cost/Acre <sup>3</sup>
<b>Grazon P+D</b>	2 pints/acre	\$8
<b>Forefront R+P</b>	1.5 pints/acre	\$13
<b>Milestone</b>	3 ounces/acre	\$10
<b>2,4-D Amine<sup>1</sup></b>	2 pints/acre	\$4
<b>2,4-D Ester<sup>1,2</sup></b>	2 pints/acre	\$5

<sup>1</sup> Use caution to minimize spray drift.

<sup>2</sup> Use low-volatile ester formulations October-March.

<sup>3</sup> Based on price quote from a local farm store on February 6, 2009. Equipment and labor costs not included.

the amine or low-volatile ester formulations, will provide good control for emerged musk thistle currently in the rosette stage. However, once the weather warms, you can expect to see a new flush of germination from seeds currently in the soil; thus, multiple applications will be necessary.

In summary, early identification and treatment of musk thistle populations can result in good, season-long control and potentially save dollars that may be better applied to soil fertility. Early control of musk thistle will enable cool-season forages to produce better growth this spring and result in earlier green-up for warm-season perennial grasses like bermudagrass. For additional information on controlling musk thistle or other problem weeds in your pastures and hayfields, contact your regional Animal Science and Forages Extension agent, or visit our Web site at [www.aces.edu](http://www.aces.edu).

## Protecting the Herd Against BVDV

**Soren Rodning, DVM**

M. Daniel Givens, DVM, PhD

Bovine viral diarrhoea virus (BVDV) causes gastrointestinal, respiratory and reproductive disease in cattle. Animals that are persistently infected (PI) with BVDV commonly shed large quantities of the virus throughout life, thus exposing herd-mates and jeopardizing efforts to control BVDV. Persistent infection with BVDV occurs when a bovine fetus is infected during the first half of pregnancy because the immature fetal immune system develops a tolerance to BVDV instead of fighting off the infection. Typically, controlling BVDV involves a combination of biosecurity, diagnostic testing and culling of PI animals, as well as vaccination to prevent infections and the birth of PI calves. However, if BVDV is introduced into a herd, only a cow or heifer's immune system (stimulated by natural exposure or vaccination) can protect a developing fetus during the first half of pregnancy. The efficacy of vaccination in preventing the birth of PI calves was evaluated by a group of investigators led by Dan Givens and myself from the

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Auburn University College of Veterinary Medicine and College of Agriculture. The research was supported by a grant from the Alabama Agricultural Experiment Station.

Eighty heifer calves born from September to November 2006 at the Upper Coastal Plain Agricultural Research Center in Winfield, Alabama, were assigned to one of four treatment groups. One group of 11 heifers remained unvaccinated, but the remaining three groups of 23 heifers were vaccinated against BVDV at weaning (May 2007), four weeks postweaning, one year of age (October 2007), and four weeks later. The vaccines were selected after consulting a large distributor of animal health products in the southeastern United States. Based on volume of sales in July 2006, Bovi-Shield Gold FP5 (Pfizer Animal Health), Pyramid 5 (Fort Dodge Animal Health) and Vira Shield 6 (Novartis Animal Health) were administered to the treatment groups. These top-selling vaccines represented two modified-live vaccines with label claims for fetal protection (Bovi-Shield Gold FP5 and Pyramid 5) and a killed vaccine (Vira Shield 6).

Estrus was synchronized, and all heifers were artificially inseminated over a three-day period in late December 2007, after which two bulls were introduced to the heifers to ensure maximum potential for pregnancy. A total of 70 heifers became pregnant, 10 in the unvaccinated group and 20 in each of the vaccinated groups. Three BVDV-PI animals were housed with the 70 pregnant heifers in an isolated pasture from approximately two to four months of pregnancy. The pregnant heifers were monitored closely for clinical disease and viremia (presence of BVDV in the bloodstream) after BVDV exposure. No heifers showed signs of severe illness, but viremias were detected in heifers from the unvaccinated group (100 percent), the Vira Shield 6 group (50 percent), and the Pyramid 5 group (5 percent). No heifers were viremic in the Bovi-Shield Gold FP5 group. Detecting a viremia in a heifer was important because it indicated that after exposure to BVDV the immunity induced by vaccination was not able to prevent the circulation of live virus in the heifer's bloodstream. Since viremia likely precedes fetal infection, prevention of viremia via vaccination is desired.

Calves born in September, October and November 2008 were assessed using a variety of laboratory tests to determine if persistent infection resulted from fetal exposure to BVDV. Persistently infected calves were only produced in the unvaccinated (100 percent) and Vira Shield 6 (11 percent) groups.

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## Conclusions

Vaccinating to prevent the birth of BVDV-PI calves can be very effective. In this research, four doses of a modified-live BVDV vaccine (Bovi-Shield Gold FP5 or Pyramid 5) between weaning and breeding provided 100 percent protection against the development of PI calves after a worst-case scenario introduction of PI animals into a group of pregnant heifers. However, 50 percent of heifers that received four doses of a killed BVDV vaccine (Vira Shield 6) between weaning and breeding became viremic, resulting in the birth of two PI calves. If possible, it is recommended to vaccinate breeding animals with modified-live vaccines labeled for fetal protection against BVDV. However, these products need to be used safely according to label directions, or reproductive problems can result. Most importantly, heifers and cows should receive these vaccines for the first time when they are not pregnant, ideally approximately two months prior to the breeding season. Since four doses of modified-live vaccine between weaning and breeding may not always be feasible, it is also recommended to continue proper biosecurity and diagnostic testing.

Many thanks to the Alabama Agricultural Experiment Station and the farm crew at the Upper Coastal Plain Agricultural Research Center who made this research possible.

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## Beef Business Basics Area Meetings Set

Most beef cattle producers in Alabama have noticed less profit in the beef cattle business these days. The events of the last two years have caused some sleepless nights. First came the drought of 2007. The drought eased in 2008 but brought significantly higher input costs for fertilizer, feed and fuel. J. Walt Prevatt, Ag Economist with ACES, determined the breakeven feeder calf price for Alabama cow/calf producers was \$1.17 per pound last year just to cover feed, fertilizer and fuel costs. This week, 500-pound, heavy-muscle feeder steers averaged \$0.93 per pound. Heifers averaged \$0.80 per pound.

Today's economy demands that high-cost input use must be reduced. This cannot be done by starving the cow herd or eliminating a herd health program. It is time to utilize and manage forage resources to reduce the need for higher priced inputs.

A series of area meetings are set to help beef producers manage their forage resources and use them to their advantage. Topics will include effective forage use, management and varieties, reducing high input use and costs, and hands-on techniques to evaluate and manage soil fertility, forage quality, weeds and the cow herd. Don Ball, Extension Agronomist, will assist regional animal science and forages Extension agents in helping you make the right decisions for your operation.

Attend the meeting most convenient for you. Your profitability depends on it!

## Calendar of Events

- April**
- 4 Beef U Educational Program, Auburn University
  - 16 Beef Business Basics. Sand Mountain Research & Extension Center, Crossville. Contact: Tinsley Gregg, (256) 547-7936
  - 23 Beef Business Basics. Cullman County Extension Office. Contact: Tinsley Gregg, (256) 547-7936
  - 23 Beef Business Basics. Russellville Stockyard. Contact: Gerry Thompson (256) 353-8702
  - 24 Beef Business Basics. Clay County Stockyard, Lineville. Contact: Henry Dorough (256) 299-0512
  - 25 B&B Livestock Judging Contest, Auburn University
- June**
- 8-9 South Ala. Market Hog Show, Dothan, Ala.
  - 16 District 4-H Meats Judging Contest, Auburn University
  - 18 North Ala. 4-H Livestock Judging Contest, Horton, Ala.
  - 25 South Ala. 4-H Livestock Judging Contest, Autaugaville, Ala.

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