ADVANCED MASTER BEEF PRODUCER
The Rhea County Extension office has scheduled 11 courses this spring that will count towards Advanced Master Beef certification. The classes are open to all producers whether they need certification or not. In order to receive certification a producer must take 7 classes. The cost for Advanced Master Beef certification will be $70. Other classes can be taken at no additional charge.

The following MORNING classes will be held at the Rhea County Ag Center and Fairgrounds from 9:30 a.m. until Noon.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>Monday, March 23</td>
<td>Nutrition</td>
<td>Dr. Justin Rhinehart</td>
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<td>Tuesday, March 24</td>
<td>Fly Control &amp; Calving Problems</td>
<td>Dr. Lew Strickland</td>
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<tr>
<td>Wednesday, March 25</td>
<td>Facilities &amp; Equipment</td>
<td>John Goddard</td>
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<td>Thursday, March 26</td>
<td>Marketing &amp; Management</td>
<td>Dr. Andrew Griffith</td>
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<tr>
<td>Friday, March 27</td>
<td>Reproductive Physiology</td>
<td>Jessy Shanks</td>
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The following EVENING classes will be offered from 6:00-8:30 p.m. at the Ag Center & Fairgrounds in Evensville.

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<tr>
<th>Date</th>
<th>Topic</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>Tuesday, January 13</td>
<td>Input Supply Outlook</td>
<td>David Bilderback</td>
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<td>Tuesday, February 10</td>
<td>Emerging Health Issues in TN</td>
<td>Dr. Lew Strickland</td>
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<td>Tuesday, March 10</td>
<td>ABC's of Minerals</td>
<td>Lynwood Ondrusek</td>
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<td>Tuesday, April 7</td>
<td>Summer Weed Management</td>
<td>Jerry Lamb</td>
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<tr>
<td>Tuesday, May 12</td>
<td>Genetic Selection &amp; EPD’s</td>
<td>Gregg Upchurch</td>
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We will also be conducting a Field Day on Saturday, March 28 from 9:00 a.m. to 2:00 p.m. This will count as two classes. Lunch will be provided. Topics to be covered include Heifer Selection & Breeding with Wil Mayfield of Select Sires and BQA Training with Jerry Lamb.

All of these classes are open to ANY PRODUCER whether you need Advanced Master Beef certification or not. However, we ask that everyone please pre-register for these classes by calling the UT/TSU Extension office at 775-7807.

COLD WET WEATHER INCREASES FEED NEEDS OF COW HERDS
Cattle producers should be aware of cattle’s increased feed demands due to cooler and wetter, winter weather and make feeding and management adjustments to ensure profitable performance. In general, hay provides more heat during digestion than concentrate feeds. This is the basis for the recommendation that the primary focus of a cold weather feeding strategy is to provide plenty of good-quality hay for energy. Most producers are aware that cows can become “hay burners” during cold weather.

Cattle nutritional requirements were determined assuming the environment to be in the 30 to 60 degree F range. As the temperature drops...
below freezing, the cattle’s energy needs increase. Wind and rain additionally increase the feed required to maintain production. If the extra feed is not provided, cattle performance will decline. As the old folks used to say about cattle and winter, “February will shake ‘em and March will take ‘em.”

How can the extra feed needed by the brood cow to ensure optimum performance during winter weather be calculated? The following examples developed by Oklahoma State University beef specialists demonstrate how to calculate feed needs. The extra feed needed when it is not raining or the wind is not blowing can be calculated by the following “rule of thumb”. Cattle energy needs for maintenance increases about 1 percent for each degree below 32 degrees in dry cold. This is fairly simple. Following are examples:

♦ Cows are in an environment where the temperature is 25 degrees F. There is no wind or rain. How much extra feed will be needed as a result of the drop in temperature?
  1. Subtract 25 degrees from 32 degrees. The difference is 7.
  2. The feed will need to be increased so that the ration will contain 7 percent more energy. If the cow is being fed 18 pounds of hay, feed 19.25 pounds of hay.

♦ Cows are in an environment where the wind is blowing and the wind chill temperature is 4 degrees F.
  1. Subtract 4 from 32. The difference is 28.
  2. Apply the “rule of thumb” for wet weather to increase the energy intake 2 percent for each degree below 59 degrees F. In this case, the temperature difference is 27 below 59 degrees F. Multiply 27 x 2 = 54.
  3. Therefore, in this situation, increase the ration 54 percent of the normal energy intake. Again, assuming the 18 pounds of hay previously meeting the nutrient requirements, then with the wet hair coat, the hay to be fed would need to be increased to 28 pounds.

♦ Cows are in an environment where it is raining and the wind chill is 25 degrees F.
  1. As in example 3, when it is raining, the critical temperature for cattle is 59 degrees F.
  2. Again, apply the “rule of thumb” for wet weather to increase the energy intake 2 percent for each degree below 59 F. In this case, the temperature difference is 34. Multiply 34 x 2 = 68.
  3. Also, the “rule of thumb” for wind chill will need to be applied. Subtract 25 from 32. The difference is 7. Therefore the feed will need to be increased an extra 7 percent for the wind chill.
  4. Add the adjustments for the wet hair coat and the wind chill. 68% + 7% = 75%.
  5. Therefore in this situation, increase the ration 75% of the normal intake.
  6. Again, assuming that 18 pounds of hay was meeting the cow’s energy needs, the amount of hay needed to be fed would now total 31.5 pounds. Unless the hay is of better quality than what is normally fed beef cow herds in Tennessee, it will be difficult to consume enough to meet the cow’s energy needs. This would require supplementing with grain in amounts that could cause digestive problems. It would be preferable to increase the energy intake by a smaller amount during the extreme weather and extend it into the days when the weather is...
more favorable. The hay could be increased to 22 pounds per day and feeding 5 to 6 pounds of corn per day. Extending this added feed level for 3 to 4 days following the bad weather would help the cows recover the losses that occurred during the bad weather and would not cause the digestive problems that could result from rapidly providing too much grain to meet the energy needs. It would be better to keep up with the weather forecasts and start making adjustments in feed intake 2-3 days before bad weather occurs.

Be sure that the cattle are consuming adequate protein with lower-quality hay. The protein will especially enhance microbial digestion of hay. Local feed dealers can provide options of several protein supplements. With low quality hay, it would be better to feed a plant protein supplement.

Cattle that are in good body condition (BCS 5+) will make it through the cold weather and wind chill better than those in a poor condition. But, cows can quickly lose condition if not properly fed and performance is also reduced. Parasite control prior to the start of the wintering period can also help reduce feed needs and maintain body condition.

**IDENTIFYING BEEF COWS AT RISK OF BECOMING DOWNERS**

According to Dr. Temple Granden of Colorado State University, an international recognized authority on animal welfare and behavior, 75 percent of the downer cows can be prevented through good management. Carrying out management programs to keep the cattle in the herd mobile, healthy and productive are much better alternatives for both the cows and their owners. Returns to the cow-calf operation will be much greater compared to euthanasia and the problem of disposing of the carcasses.

What can cow-calf producers do in the “short-run”? What can be done now, this winter? Probably the first step would be to evaluate the cowherd as well as management options as to risk of contributing to downer cows. With the stress that will be experienced the remainder of the winter, several beef cows will be at risk of becoming downers or dead.

Following are some current suggestions for consideration by cow-calf producers in identifying cows that are at risk of becoming downers. Review these and take appropriate action.

- Cull old cows. As cows mature, they develop physical problems such as arthritis, loose teeth and generally become thinner. As these conditions occur, the cows will also lack the aggression and strength to compete at the hay ring with the other cows. They will drop to the bottom of the herd’s “pecking order”. With the cold winter weather, rain and limited feed intake, these cows will be at high risk unless either sorted from the herd and fed separately or marketed before their condition becomes worse.

- Evaluate cows for potential lameness. Lameness contributes to downer cows. Lame cows become weak and thin in body condition due to reduced ability to move about to secure forage and compete with other cows for feed. Arthritis and structural problems, as well as injuries, contribute to lameness. Maintaining facilities, fences and working equipment in a good state of repair as well as keeping pastures and pens free of objects that could cause injury are suggested practices. An animal injured during working could also become a downer.

- Manage to reduce calving problems or difficult births. Producers should carry out practices that reduce calving problems. Forty-six percent of downer cows were reported to be the result of difficult births. Frequently observe cows during the calving season. Do not permit the calving process to go on for an extended period. Consider providing assistance earlier than under normal conditions. Use common sense using calf pullers. Nerve damage during the calving process increases the probability that the cow will be a downer. In the long-run, selecting and using herd sires with appropriate birth weight EPDs as well as properly selecting, growing and managing replacement heifers will contribute to reducing the risk of downer cows.
Some other management suggestions that would aid in preventing downer cows during both the short and long-run would include:

- Plan safe transporting of animals. When transporting animals, neither overload nor underload the truck or trailer. The loading facilities, the truck or trailer should have good footing. Drive carefully and avoid sudden stops and starts. A cow that gets down and is injured on the way to the market has the potential to be considered a downer at the market. Market operators will probably not accept cows that they conclude will not withstand the stress of transporting and marketing and being mobile when reaching the slaughterhouse.

- Cull aggressive animals. Animals that are aggressive toward others in the herd, especially toward older or weaker animals, should be culled. These animals will especially create problems for weak animals.

- Provide roughed surfaces where cattle are moved. Slick surfaces have the potential to cause the animal to slip, fall, spraddle and become downers.

- Provide adequate nutrition to cattle. This includes energy, protein and minerals. Inadequate nutrition results in thin and weak cows that have reduced immunity and are more susceptible to diseases and have potential to become downers.

**UT Beef & Forage Center**

UT Extension has developed a website that centralizes information in one location. Information on beef cattle, forages, research, Master Beef, BQA, bull testing station, and educational videos can be found. The website can be found at http://utbfc.utk.edu

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**UPCOMING EVENTS**

TN Cattlemen’s Association meeting  
January 15-17, 2015  
Murfreesboro, TN

Mid-South Stocker Conference  
February 18, 2015  
Somerset, KY

UT Artificial Insemination Schools  
March 10-11, 2015  
March 31-April 1, 2015  
April 21-22, 2015  
Spring Hill, TN

Sincerely,

Jerry Lamb  
Extension Director