

When temperatures are between 20° F and 25° F, a baby calf's maintenance requirements increase about 50% compared to those in less-cold weather. Baby calves need more than a gallon of milk just for maintenance. A cow in poor condition that is fed low-quality hay will produce very little milk. Thus, the fate of a young calf that receives only a quart to half-gallon of milk per day is easy to predict.

Following are some suggestions for feeding low-quality hay in the winter and managing beef cows and their calves:

- ▶ Forage-test the hays prior to feeding. Testing is essential to developing an effective winter feeding program regardless of the quality of the hay.
- ▶ Following the results of the forage test, feed the lower-quality hay to the dry, pregnant, mature cows. Supplement if recommended.
- ▶ When feeding low-quality hay, be sure adequate protein is available. This determination can be made based on the forage test results. Inadequate protein will cause the cattle to consume less feed than desired.
- ▶ Feed cows on sod or otherwise out of the mud. Feed hay over as large an area as possible.
- ▶ Cubes are a popular method of providing supplemental protein. Cubes can be scattered across the sod of the pasture, permitting all of the cows to have access to it.
- ▶ Ensure adequate space is available for the cattle to eat from the feeding rings. Generally, the younger, stronger cows will choose the better feed, and the older cows and those that have physical problems will receive what is left over. The leftovers are usually the poorer-quality feed, which causes weight and condition loss.

Performance of the brood cows will be reduced and the performance and survival of their calves will be reduced if the effects of the low-quality feed are not offset. Low-quality hay can be utilized in the winter feeding program for Tennessee cow-calf producers, but be sure you know the nutritional content of the hay and feed accordingly.

For additional information about winter feeding of cow-calf herds, contact your local extension office.



Editor's Note: James Neel is animal science professor and extension beef cattle specialist for the University of Tennessee (UT). This article is reprinted with permission from the Fall 2013 Beef Cattle Time newsletter published by the UT Institute of Agriculture.

Test soil, hay for useful information

There are two very important tests that forage producers should perform consistently — a soil test and a forage test. The results of the tests will help you determine if you need to take any action to prevent poor performance.

Soil test results will give information needed to correct any soil fertility issues that might be found in pastures and hayfields. Low pH, potash or phosphate levels might result in reduced yield, plant persistence and increased weed pressure. A soil test performed once every three years will help you monitor your soil fertility and give you the lime and fertilizer needed to grow the desired crop. If you plan on fertilizing next spring, go ahead and soil sample sometime over the next month or so. Then, in the spring you will know what fertilizer to order.

Be sure to take about 10-15 samples per 10- to 15-acre field. Sample the soil to a depth of 6 inches. Cover the entire field when sampling. Your results won't be as accurate if you only sample the area close to the gate.

A forage test will provide the information needed for the proper winter feeding program for your livestock. A forage test will tell you the level of crude protein, energy and fiber in the hay or silage.

It is important to remember that the most crucial factor influencing forage quality is not the forage species or fertilization, but the maturity of the plant when it is cut. Because of this factor, every year the hay quality will be different.

If you have several different fields, there is a good chance that the hay from the fields could be diverse in protein or energy. If you take a forage test of each cutting, you will know if the nutrient content is good enough to meet the needs of the animals you are going to feed, or whether you need to supplement with some corn (for energy) or soybean meal (for protein).

The University of Tennessee (UT) Soil, Plant and Pest Center can run both forage and soil tests. If you would like more information on either of these tests, you can contact your local extension agent or go to the center's website at <http://soilplantandpest.utk.edu>.

— by Gary Bates, University of Tennessee

Editor's Note: Gary Bates is director of the UT Beef and Forage Center. This article is reprinted with permission from the Fall 2013 Beef Cattle Time newsletter published by the UT Institute of Agriculture.