

Calculating Winter Feed Costs For Cows

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Cow-calf producers calculating likely winter feed costs need to take into account the importance of estimating forage usage by cows.

Glenn Selk, Oklahoma State University Cooperative Extension emeritus livestock

specialist, said hay or standing-forage intake must be estimated in order to make the calculations, and forage quality will be a determining factor in the amount of forage consumed.

“Higher-quality forages contain

larger concentrations of important nutrients, so animals consuming these forages should be more likely to meet their nutrient needs from the forages,” he said. “Just remember, cows can consume a larger quantity of higher-quality forages.”

Higher-quality forages are fermented more rapidly in the rumen, leaving a void the animal can refill with additional forage. Consequently, forage intake increases.

For example, low-quality forages — those below approximately 6% crude protein — will be consumed at about 1.5% of body weight on a dry-matter basis per day. Higher-quality grass hays — those with more than approximately 8% crude protein — may be consumed at about 2% of body weight on a dry-matter basis per day.

“Excellent forages — good alfalfa, silages or green pasture — may be consumed at the rate of 2.5% of body weight on a dry-matter basis per day,” Selk said. “The combination of improved nutrient content and increased forage intake makes high-quality forage very valuable to the animal and the producer.”

With these intake estimates, producers can calculate the estimated amounts of hay that need to be available.

For example, take 1,200-pound (lb.) pregnant spring-calving cows wherein the grass-hay quality is good and tested at 8% crude protein. The cows will voluntarily consume 2% of body weight, or 24 lb. per day. However, the 24 lb. is based on 100% dry matter. Grass hays often will be 7% to 10% moisture.

“If we assume the hay is 92% dry matter or 8% moisture, the cows will consume about 26 pounds per day on an as-fed basis,” Selk said.

Plus, there is a curve thrown into the decision-making process. A producer also must consider hay waste when feeding big round bales. Hay waste is difficult to estimate, but studies have generally shown it to be from 6% to 20%, though it can be more.

In the example provided above, assume 15% hay waste. Selk said this means approximately 30 lb. of grass hay must be hauled to the pasture for each cow each day for which hay is expected to be the primary ingredient in the animals’ diet.

Cattle and calves represent the No. 1 agricultural commodity produced in Oklahoma, accounting for 53% of total agricultural cash receipts, according to National Agricultural Statistics Service data.



Editor’s Note: Donald Stotts is a communications specialist for the Oklahoma State University Agricultural Communications Services.