

Short Supply of Hay May Make Grain an Economical Choice for Beef Cow Feed

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A shortage of hay may make grain an economical choice for feeding stock cows through the winter according to a North Dakota State University Livestock Specialist.

"Grain has the advantage of being easier and cheaper to ship in than hay and is generally available," says John Dhuyvetter at NDSU's North Central Research Extension Center near Minot. "The early and cold winter has resulted in higher-than-normal hay use and many producers are considering feeding alternatives to stretch hay supplies and maintain cow condition." In a typical winter, producers rely on hay and other harvested roughage to feed their cows through the winter.

Dhuyvetter says producers usually have one of two reasons for feeding grain to stock cows: to maintain cow condition and meet their nutritional needs or to extend hay supplies.

This winter, it's likely that producers want to extend hay supplies because of reduced production this summer, an early end to the grazing season this fall and added stress because of severe weather.

"If that's the case, grain can be fed at fairly high levels to provide most of the cows' need for energy," Dhuyvetter says. "But some roughage is needed to maintain digestive function and provide rumen fill." Generally, in cold conditions cows should receive at least .75 percent of their body weight or roughly 10 pounds of hay daily.

He says that when producers substitute grain for hay they should look at the energy or total digestible nutrient level of the two feeds. As an example, a pound of corn will replace 1.7 pounds of average-quality mixed hay. A pound of barley would replace 1.6 pounds of hay and oats would replace 1.5 pounds of hay.

An added benefit of feeding grains such as barley and oats is that their high protein level minimizes the need for supplemental protein, he says. The high fiber level of those grains also adds some roughage to the diet and reduces feeding problems.

Producers with plenty of lower-quality hay may need to feed grain to meet the nutritional needs of cows in late gestation and maintain body condition. In that case, Dhuyvetter says feeding small amounts of grain may supplement energy available from the forage and minimize negative effects of starch digestion on fiber digestion. He says protein deficiencies in the forage should be corrected first with supplements or in concert with grain supplementation to stimulate maximum forage intake and digestibility.

"When feeding to meet nutrient needs, it's important not to feed too much grain. That's to make sure there are plenty of healthy forage-digesting microbes in the rumen," Dhuyvetter says. He

advises that grain supplementation in that situation should be limited to a few pounds per day or about a quarter of one percent of body weight.

"When feeding a limited amount of a highly concentrated ration, make sure feed is delivered so that each animal has an equal opportunity to eat and get its share," he says. Sorting the herd into smaller groups by nutritional need will minimize feed waste and give timid animals a better opportunity to make the best use of limited feed in bunks.

Dhuyvetter also advises grinding grain coarsely and feeding it on a regular daily schedule.

"There's not as much flexibility in timing and labor with grain as there is when you allow cattle to self-feed on forage," he says.

If cows are on a diet of old or poor hay and grain they may be deficient in vitamin A and several other minerals. "So if grain is being processed it's a good idea to include vitamin-mineral supplements in the grain," he says. "Another option is to provide free choice vitamin-mineral-salt mixture, particularly if consumption is monitored and can be adjusted."

Assistance in analyzing and balancing cow rations is available through the NDSU Extension Service. Contact your county office of the NDSU Extension Service or the North Central Research Extension Center for more information.

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