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NORTH DAKOTA STATE UNIVERSITY NDSU Extension Service ND Agricultural Experiment Station

Diet Changes Help Beef Cattle Cope With Winter Weather

Sudden diet changes can cause digestibility issues.

Feeding cattle is an art, especially in the face of brutal blizzards and extended subzero cold, according to a North Dakota State University livestock expert.

"You have to know your cattle and what they're eating, and then know what you can and can't do," says Karl Hoppe, NDSU Extension livestock systems specialist at the Carrington Research Extension Center. "We have a lot of producers who are forced to change their feeding strategies by the weather and it's easy to cause problems."

A cow's first stomach, the rumen, contains a complex mix of microbes to digest forages and grains efficiently.

"That's an advantage for the cow most of the time," Hoppe says. "But when you make sudden changes in feeding, it's easy to upset the balance."

In North Dakota, where producers are backgrounding calves or caring for beef cows, the easiest strategy during a blizzard is to provide the cattle with plenty of hay. This often is low-quality hay. The cattle eat their fill and it stays in the digestive tract for a longer period of time than grain or high-quality forage. Hay also can be used as bedding to protect the cattle against the weather.

Hoppe says those long-stemmed forages blow around less during winter storms and take longer to digest, keeping cattle satisfied longer. Also, whole grains are easier to handle in high wind than ground grain. Cattle waste less and take longer to digest the whole grains. Plus, whole grains are less likely to cause acidosis, the ruminant's version of heartburn.

"It's when we feed cattle diets with a higher caloric density that we cause digestive disturbances," Hoppe says. "Higher caloric density means more grain, as compared with hay or silage."

He also recommends mixing the ration so that cattle can't pick only the grain and high-quality forage.

"It's important to get cattle eating a high-quality diet as fast as possible after a storm to maintain their condition, but remember that it takes some time for the rumen to repopulate the microbes necessary to digest those higher-quality forages and grains," Hoppe says. "You need to give cattle some time to adjust."

Coccidiosis, a condition that can cause diarrhea and intestinal damage, also can be a problem. Coccidia are microbes that normally live in the rumen. But when cattle are under stress, those microbes can multiply excessively and become pathogens that attack digestive tissue.

Coccidiosis can be prevented with a number of coccidiostats, which are substances administered to animals to retard the growth and reproduction of coccidian parasites. Coccidiosis also can be treated in its early stages.

Hoppe also advises producers to beware of "personality" problems among cattle that become magnified by hunger.

"Every herd has aggressive animals that will be first in line and eat the most," he says. "You may find those cattle suffering from bloat or acidosis while more docile cattle aren't getting enough to eat. Avoid that problem by providing enough bunk space for all cattle to get at the feed."

He suggests producers clean the snow out of feed bunks before feeding time to eliminate snow and ice buildup. He also advises removing ice buildup around cattle waterers. Cattle that don't have access to unfrozen water will reduce their feed intake even if feed is readily available.

To avoid problems when cattle no longer need a higher caloric ration, he recommends changing the diet back to normal gradually, in increments of 5 or 10 percent daily.

For more information on livestock feeding during severe winter weather, contact the NDSU Extension office in your county or the NDSU Carrington Research Extension Center at 701-652-2951.

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Diet changes can help cattle cope with winter weather, but those changes also can cause digestibility issues. (NDSU photo)