Help Dairy Cattle Beat the Heat

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A North Dakota State University dairy expert says producers have ways to reduce the effects of hot weather on their cows.

A drop in milk production of 10 to 15 pounds per cow per day is not unusual, according to NDSU Extension Service dairy specialist J.W. Schroeder.

"But waiting until hot weather subsides is not an effective strategy since milk production lost seldom is ever regained once the weather cools down," he says.

Here are his tips for alleviating summer heat stress in dairy cows:

- Cover feed bunks to prevent spoilage from heating in the summer sun and soaking in thunderstorms. Shade cloths can provide an economical temporary solution. Fluctuation of feed intake prior to calving has very undesirable effects on cows' successful transition to the milking herd and peak milk yield.
- Cool cows with fans and sprinklers. Use 36- to 48-inch fans 20 feet apart, 8 feet off the ground and angled downward at 15 to 25 degrees. Place sprinkler soaker nozzles with 10 pounds per square inch of pressure and 180-degree spray 8 feet above the cows and immediately below the fans over the feed lanes. Sprinklers should run on a timer that soaks cows for two to three minutes at 15-minute intervals.
- Consider reducing the cow group size to reduce the time the animals spend in the holding pen. Also provide ample fans in the holding pen to move hot air away from cows. The milking parlor's holding pen is the hottest place on the farm.
- Provide the cows with clean water. Don't forget the water trough. During the summer months, each waterer should be cleaned at least every other day to prevent accumulation of algae and spoiled feed. Wiping the surfaces with a diluted bleach solution prevents algae growth for several days. Provide at least two waterers per group with a water supply of at least 5 gallons per minute. Better yet, consider adding more water trough space near or in the holding pen during the summer heat.
- Modify feed rations, which can increase energy supply and decrease heat load on the cow.

Schroeder says adding supplemental fat from sources such as whole oil seeds, including sunflowers, flax, canola and cottonseed, as well as whole soybeans, is the cheapest way to add energy. Producers can add fat up to 5 percent of the ration's total dry matter. If the cows need additional fat (up to a limit of 6.5 percent of the total daily dry matter intake), it should come from rumen inert fats, which would not have an adverse impact on rumen fermentation.

However, producers need to avoid overfeeding protein, he says. Many of the new ration formulation programs will permit producers or their nutritionist to balance rations based upon the

amino acid supply. With the right combination of feed ingredients, the ration’s crude protein can be reduced to 16 percent or less for high-producing cows.

He also advises producers to increase potassium, sodium and magnesium to 1.5 percent, 0.45 percent and 0.35 percent, respectively, of the ration dry matter for lactating cows. Adequate minerals could be missing from the cows' diet when they aren't eating.

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