Haylage might fit some beef operations

By LORETTA SORENSEN

Haylage or hay-crop silage can be both economically viable and nutrient-dense feed sources for beef cattle — in some cases, superior to hay.

Haylage always refers to some type of ensiled hay crop, says Warren Rusche, cow-calf field specialist at South Dakota’s Watertown Regional Extension Center. Silage typically is a row crop. As with silage, haylage can be put up in bales, bags or bunkers.

To determine if haylage is an advantage for a specific beef-production system, producers can begin by answering some questions, says Julie Walker, South Dakota State University beef specialist.

- **Do your cattle need that kind of high-quality nutrition?**
- **Do you have the equipment to harvest haylage?**
- **Do you have a system to feed it out?**
- **Could you graze the forage instead of harvesting it?**

That’s the kind of cost-related information you need to review before you make a decision about haylage, Walker says.

In situations where weather conditions significantly delay alfalfa harvest, for example, haylage could improve forage quality and save both time and labor.

The cost of haylage is generally about half the cost of alfalfa since it is 50% moisture, Rusche says. Yet beef producers should remember that hauling haylage for long distances would reduce its economic advantage because it’s much heavier than baled forages.

**Experiment first**

Leasing or hiring haylage equipment can be cost-effective, and may be an advantage if a beef producer wants to explore haylage benefits but not commit fully.

“You need a chopper,” Rusche says. “You need wagons or trucks to haul haylage to a storage facility. You may need some equipment for the storage process, depending on what type of storage is used.”

**Making haylage**

“Unless you have a thin stand and less to concern with windrows, you probably won’t have to rake windrows for haylage,” Rusche adds.

“You may be able to cut and store haylage without waiting for it to completely cure. It’s usually harvested at about 80% moisture and would have to dry down to 50% moisture. Before baling, it has to dry down to about 15% moisture.”

Forage specialists can offer insight on harvesting techniques. If haylage is too finely chopped, it can lead to rumen health issues. A common recommended length is three-eighths inch. If you are purchasing equipment, thoroughly review chopper specifications to ensure equipment settings result in the desired particle length.

Storing haylage at proper moisture levels is critical to maintain quality. Haylage should test at 35% to 45% dry matter and be monitored during storage. Haylage needs to ferment for 14 days before being fed. When creating a haylage site, plan for an adequate “face” that allows for daily removal of the feed.

**Storage critical**

An existing silo or bunker can be used for haylage if it provides necessary protection from weather conditions. If a bagged storage process is used, the base site should be a well-drained, smooth surface. Sand, cement or 4 to 5 inches of lime can be used to establish the base.

Storing haylage in a bunker can lead to a top layer of spoiled forage that doesn’t ferment properly. Studies have shown that feeding the spoiled forage can negatively impact rumen function because it is less digestible.

“When you pack the haylage, you need to make sure the air is pressed out of it,” Rusche says. “Air pockets hinder fermentation. If the haylage is too wet when it’s stored, you’ll have problems with seepage and loss of quality.”

**Check quality**

Test haylage prior to feeding. Alfalfa, for example, should be more than 20% crude protein, under 40% neutral detergent fiber, more than 50% NDF-digestibility and under 30% acid detergent fiber.

Relative forage quality for dry cows and heifers needs to be near 130. For lactating cows, RFI should be from 150 to 175.

Haylage pH should be less than 4.5. Ammonia nitrogen should be less than 10% of total nitrogen, lactic acid greater than 4% and acetic acid less than 2%. Butyric acid should test less than 0.25%. Lactic acid should account for greater than 70% of total volatile fatty acids.

Compare the cost, labor and quality associated with baling forage or putting up haylage. Walker says, “Each producer’s situation will be different.”

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