

## Hold the net wrap and twine

Erin M. Laborie for *Progressive Cattle*

### AT A GLANCE

Cattle can consume net wrap or twine, which accumulates in the rumen, and buildup can cause an array of issues for the animal.

Net wrap is an efficient forage-binding method and significantly reduces harvest and storage losses compared to twine. According to a forage-binding survey conducted by South Dakota State University (SDSU), net wrap was the most preferred method of forage binding (67%) compared to twine (26%) or both (6%), depending on the crop harvested or livestock being fed.

Oftentimes, to save time and labor, net wrap or twine is not removed prior to feeding hay to cattle. The SDSU forage-binding survey reported that 54% of producers removed net wrap or twine when feeding bales whole, but only 11% of producers removed it when grinding bales.

Whether it occurs by accident or simply out of boredom, cattle can consume some of this net wrap or twine, which then accumulates in the rumen. The buildup of forage-binding material in the rumen can result in cattle weight loss, diarrhea and other symptoms similar to hardware or Johne's disease.

Research by North Dakota State University (NDSU) has shown that rumen microbes do not digest plastic net wrap or biodegradable twine. Sisal twine does get digested but at a much slower rate compared to hay. In another NDSU study, steers were fed net wrap in a ration until 14 days prior to harvest to determine if the material would pass through the digestive system. However, there was still a significant amount of net wrap remaining in the rumen after 14 days. In nonrelated livestock mortality cases,



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26% of SDSU survey respondents had postmortem exams conducted by a veterinarian, and 30% of those recovered net wrap from the animal.

Cows fed ground, net-wrapped hay for 140 days in an SDSU study accumulated a softball-sized mass in the rumen consisting of 0.8 to 1.1 pounds of net wrap. The entangled mass of net wrap and feed measured around three feet in length when stretched out. Based on the amount of net wrap offered through the diet, about 53% of the net wrap was recovered through rumen evacuations. Research by Montana State University has shown similar results where 47% of the net wrap offered to cows was recovered from the digestive tract.

While grinding net-wrapped bales may reduce the particle size compared to feeding intact net wrap, health issues can still occur. It is important to consider how failing to remove forage-binding materials may affect rumen function and capacity of the cattle being fed long term. Due to differences in diet and the amount of baled forages consumed, cows are likely to be more at risk than feedlot cattle. There is no treatment available for the buildup of forage-binding materials in the rumen, so prevention is key to avoiding any health issues.



Photo by Erin Laborie