

FOR IMMEDIATE RELEASE

For more information, contact: Wendie Powell
Livestock Production Agent, Wildcat Extension District
wendiepowell@ksu.edu, (620) 784-5337

Hay! Cut waste, Cut Costs

Reducing hay waste will improve the efficiency and profitability of cattle operations. Several research studies have been conducted, determining hay waste by feeder type. Some are designed to hold hay securely and keep it clean, while others are manufactured for the low-budget operation, allowing for more spillage and contamination.

Feeding a round bale of hay to cattle in a pasture without a hay feeder can result in waste of just under 50%. Waste may contribute to organic matter and other soil nutrients and, therefore, may not always represent a total loss. However, strategic bale placement must be employed for the nutrients to be effectively utilized.

Unrolling hay is a common strategy. Waste is difficult to quantify since the dry forage may be intended as nutrition *and* bedding for calves. Considering only the nutritional aspect of this scenario, 25% or more of the bale can be lost. Researchers recommended unrolling only the amount to be consumed daily.

Open-bottom feeders, whether steel ring or polyethylene pipe, are popular due to their low cost and easy handling. The unprotected bottom and the loosely restricted access to the bale allow livestock to easily drop hay outside the feeder, especially during the first 24 hours after a new bale is introduced. Research has shown waste levels of 16% to 21% of the original bale weight, most of which is trampled. As the bale is consumed, smaller animals enter the bale ring, causing further waste by trampling and excretion.

Feeders enclosed for the lowest 18 inches, such as the sheeted-bottom steel ring, help contain loose hay and minimize the amount of hay pulled out. This style is particularly effective after the bale has collapsed. They help maintain a clean feeding area and keep loose hay within reach of the cattle. Around 12% of the original bale weight is wasted with sheeted bottom bale feeders.

Research has shown that the most efficient option of bale feeder design has either a basket or a cone adaptation. These features drastically reduce hay waste by restricting access to the top third. By keeping hay centrally located and contained, cattle are not able to pull it outside the feeder. Most of these feeders are also equipped with a sheeted bottom, further reducing waste as the available hay becomes looser. Total bale loss is around 5%, and can be as low as 2%. A front-

end loader is necessary to place the bale in the feeder, and these designs can be cumbersome to handle. The design of these feeders keeps the bale centrally located in the basket, potentially creating a problem for animals with a short reach as the bale is consumed.

Regardless of feeder type, research has shown time and again that waste is reduced with higher-quality forages. Knowing the quality of your forage will allow you to offer the amount needed for your cattle based on their stage of production. This ensures livestock get the required nutrition without overfeeding, thus reducing waste and saving money. If you are planning to upgrade your feeders one or a few at a time, use the lower-quality hay in the higher-quality feeder to experience the least amount of hay waste.

For more information on using preserved forages, contact Wendie Powell, Livestock Production Agent, (620) 784-5337, wendiepowell@ksu.edu.

#

Kansas State University Agricultural Experiment Station and Cooperative Extension Service
K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of K-State Research and Extension, Kansas State University, County Extension Councils, Extension Districts.