

# Forage Feeding Losses Can Add Up

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**F**orage feeding losses can be as high as 25 to 45% of the forage delivered to the cow herd. Livestock trample, over-consume, foul on and use for bedding 25 to 45% of the hay when it is fed with no restrictions or is not processed.

As forage feeding systems are incorporated into the feeding system to reduce feeding losses to the lowest possible level, the financial commitment will increase. The key is to balance the financial outlay to implement a feeding system to reduce forage losses with the dollars saved in reducing the amount of forage needed. Many times this savings is dependent on the cost of the forage, and as the cost of the harvested forage increases, it appears easier to justify the cost of machinery and feeding devices.

## Feeding frequency and amount

Hay loss and waste can be reduced by feeding hay daily according to diet needs. Compared to feeding a several-day supply each time hay is

provided, daily feeding will force livestock to eat hay they might otherwise refuse, over consume, trample and waste. Cattle will waste less hay when the amount fed is limited to what is needed in a single day. One-fourth more hay is needed when a four-day supply of hay is fed with free access than when a one-day supply is fed.

Excessive hay consumption can be a major problem when large hay packages are fed without restriction. A dry, pregnant cow can eat up to 15 to 20% more hay than her needs when allowed free access to good-quality hay. A cow that is 1,200 lb. consuming 27 lb. daily as is, with free access to the forage, could consume 31 lb. daily. This over consumption can amount to almost 500 lb. per cow over a four-month feeding period for spring-calving cows. A 100-cow herd may over consume 24 tons of hay if the cows have free access to hay.

## Devices to reduce forage losses

Feeding losses when hay is fed daily in bunks can be kept in the 3 to 14% range. Well-designed feeders (with solid bottom panels) will have losses in the 3 to 10% range for an average forage loss of about 6%. Large bales fed free choice without a rack or feeder in muddy conditions can result in forage losses exceeding 45%. Feed bunks are excellent for feeding small square bales. Round bales can be fed in specially designed racks. Loose or compressed hay stacks can have collapsible racks or electric wire around them to reduce trampling the hay around the edges. No matter how hay is fed, efforts that limit the amount of hay accessible to trampling will save feed.

Feed hay at a well-drained site and on firm ground, when possible. Hay racks or bale feeders with solid barriers at the bottom prevent livestock from pulling hay out to be stepped on. Some producers have fed forages on an up-slope with the hay next to an electric



fence. Their observation is when the hay is spread in a long line so that all cows have access next to the electric fence, forage losses due to trampling are minimal.

The type of forage presented to the cattle can impact the amount lost during the feeding process. Allowing cattle free access to forages with a thicker stalk or stem results in greater forage losses during feeding compared to thin stemmed forages like hays. When cattle are fed forages like sorghum-Sudan hay and the feeding method and access are not controlled, they tend to select the leaves and upper parts of the stalk and not the lower part of the stalk, resulting in greater feeding losses. When the feeding method and the amount that cows have access to are controlled, feeding losses are not much different among forage types.

Dry matter losses occur when handling hay from field to feeding. By the time the hay is fed, losses can be substantial and can essentially increase the amount of production needed from the original standing crop by 35%. By effectively controlling the amount of hay lost and wasted during harvest, storage and feeding, production costs can be reduced, and hay making can be more profitable.

## Grinding or processing

There are some misconceptions that grinding forages will increase forages quality. This belief is not true. In some grinding situations

quality may decrease, especially if the hay is ground on a windy day.

Grinding decreases particle size, and when particle size is decreased, the amount of time that the ground forage needs to stay in the rumen to be digested decreases. A decrease in rumen retention time means forage intake will increase. This fact means that a cow can consume more of the forage. This concept becomes important when producers are feeding cows a low-quality forage and intake is restricted because it will not pass through the rumen at a very rapid rate because it takes so long to digest.

Grinding or processing hay in a bale processor is a method to increase consumption of low to medium quality forages.

Grinding different forages together will allow combining forages of differing quality for best use in a cow feeding diet. It also allows a way to manage problem forages such as forages that contain nitrate levels that are at the potentially toxic level.

Controlling forage feeding losses is important. It must also be recognized that as forage feeding losses move closer to zero, money will be invested on extra equipment or material such as bunks, feeding racks, inverted tires, etc. If the forage is ground, a feed wagon and/or loader on the tractor is needed. Costs need to be balanced with savings. **HW**

**Large bales fed free choice without a rack or feeder in muddy conditions can result in forage losses exceeding 45%.**

