

Minimizing Hay Waste

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Feeding your animals is likely one of the biggest expenses you face as a livestock producer. The price of feed can be very high, especially if you have it shipped. Have you stopped to consider how you are feeding your animals and if you can minimize the amount of feed being wasted? Minimizing feed wastage can help you reduce the amount of feed you need to purchase or grow.

Hay can be purchased as either a square bale or round bale. There are many things to consider in selecting the type of bale to use. Square and round bales differ in density, storage and feeding capabilities. Square bale density and confirmation will help reduce shipping costs, as each load can haul more hay. Shipping can reduce the amount of hay that you end up receiving where dense tightly packed hay will lose less. Although there is not much you can do about it, it is good to be aware that during transportation some hay will be lost. Again, square bales will lose less during transportation.

Unless hay will be used soon, storage options should be given some serious thought. First, how long will you store the hay? If it is for more than one season, bales left to the elements will deteriorate and lose many nutrients. To reduce nutrient loss indoor storage or bale covers with bales on gravel or tires should be considered for long-term storage. Hay losses for bales stored inside for more than 8 months are 2 to 5%, where losses of bales left to the elements can be as high as 50%. Round bale deterioration occurs most where the bale touches the ground or where water can collect.

Your feeding method can also play a roll in how much feed is wasted. The following table shows several feeding methods and the amount of hay that is wasted.

Feeding Method	Waste, %
Roll-out on ground	up to 50.0
Cradle Feeder	14.6
Trailer Feeder	11.4
Ring Feeder	6.1
Cone Feeder	3.5

Unrolling a round bale on the ground is a conventional method of feeding hay; however, hay wastage can be high. Round bale feeders will go a long way to reduce the amount of hay wasted, but will also add equipment expense. If you feed hay on the ground, try to limit the amount fed to only one meal. Cattle will use excess hay as bedding and soil a high percentage.

Waste of feed can also depend on the animal species you are feeding. Selective eaters, such as sheep and goats, may avoid stems and eat only leaves, so further processing may be required. Cattle are not fussy eaters and have a mouth and tongue built for eating a lot of feed. This may cause them to drop feed on the ground. Consider how the species you are feeding eats, and feed accordingly.

There are pros and cons to each feed, storage system, and feeding method. It is also important to remember the amount of hay wasted is not the only factor to consider. Other considerations are ease of handling, labor, and equipment. An economic consideration of all hay and livestock feeding programs

are necessary to determine what is best for you. Some hay wastage may be justified if it lowers costs on labor and equipment. For more information on hay losses or feeding your herd, contact Chris Shelley at 970-332-4151 or chris.shelley@colostate.edu.