

# THE DIGESTIVE TRACT

## Think about winter feeding

by Dan Shike, University of Illinois



As winter approaches, it's time to make sure you have in place a good winter management plan.

There are many decisions that need to be made, but managing the nutrition of your herd is certainly toward the top of the list.

One of the keys to profitability in a cow-calf operation is managing feed costs, as more than 60% of annual cow costs are feed costs.

Much of the variation in feed costs from herd to herd is due to differences in the cost of winter feed.

Producers should have a well-developed plan to manage these costs before winter starts. There are multiple factors to consider when developing a winter feeding plan, and

these considerations will vary greatly depending on geographic location and available resources.

### A starting point

There is no such thing as a normal year. However, for planning purposes, having historical data on grazing days for your operation will certainly provide a starting point.

One of the best ways to control winter feed costs is to extend the grazing system. Management schemes will vary greatly depending on pasture species, soil type and rainfall. Rotational grazing and stockpiling are examples of grazing management systems that can extend the season.

Grazing crop residue and cover crops are great ways to significantly reduce the number of days cows will

need to be fed stored feed. Although these alternative grazing systems can often provide several weeks, and in some cases

months, of grazing, this will be greatly affected by weather. Drought can limit growth of cover crops, and excessive rainfall or snowfall can significantly reduce the number of grazing days on residue or cover crops.

### Using stored feed

A good winter feeding plan will include having extra stored feed on hand in case the planned fall/winter grazing season is cut short. If you wait until you need the feed, expect to pay more.

There has been significant work

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done on winter feeding options when cows no longer have forage available to graze.

The standard for wintering beef cows is offering *ad libitum* access to hay. There are a number of reasons free-choice hay has been the go-to winter feed choice. Many operations bale excess forage in the spring for use in the winter. Hay produced on location provides a similar forage base as when grazing, which makes for an easy transition to winter feeding.

For smaller-scale operations, feeding big bales of hay is appealing



from a labor and equipment standpoint. However, there can be significant hidden costs from storage and feeding losses.

### Limit losses

Hay that is stored uncovered outside on the ground can have storage losses of nearly 50%. At the other end of the spectrum, hay

stored in a building may have storage losses as low as 2%. If hay is the primary source of winter feed for your operation, you should do some math to see how long it would take for you to pay for a shed in which to store your hay.

If storing hay outside is your only option, there are several things you should do to minimize loss: Place

bales end to end with about 3 feet (ft.) between rows. Orient rows north and south. Avoid storing in low-lying areas. Additionally, you may want to consider storing bales on gravel or on pallets and covering with net wrap or plastic.

Minimizing storage losses is just half the battle. Feeding method can contribute substantially to hay loss.

Above: Byproducts and crop residues provide excellent alternatives to hay, though type and availability vary greatly geographically.

There are multiple options for feeding hay, including traditional bale ring feeders, cone feeders, trailers and cradles, rolling out hay, and bale processors.

When feeding fescue or corn

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stover, cone feeders can limit waste to 10% or less. However, open rings could result in 20% waste with fescue or up to 40% waste with corn stover.

### Hay alternatives

There has been a significant amount of work identifying alternatives to feeding hay. Byproducts and crop residues provide excellent alternatives. Obviously, the availability and type of byproducts and crop residues will vary greatly geographically. However, there have been many different combinations evaluated, and the common finding is that as long as the ration is balanced and formulated to meet the nutritional needs of the target group of cows, these byproduct/residue rations result in similar to improved performance compared to hay.

Thus, the decision on whether to feed hay or to feed byproducts and crop residue comes down to which option is the least expensive for

your operation. This comparison isn't always as straightforward as you might hope. To make an accurate comparison, you need to factor in storage and feeding waste, labor and equipment.

The answer will often vary by herd size. For smaller herds it is difficult to justify the costs associated with storing byproducts and feeding a total mixed ration (TMR) using byproducts or crop residue.

Once you have decided on what feedstuffs you plan to feed, you must next determine how much feed you need to have on hand. It is impossible to predict how mild or severe each winter will be. It is a good practice to build in extra.

If you are going to calculate the amount of feed needed, you not only need to factor in the number of days you plan to feed and estimate intake, but you also need to account for those previously

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mentioned storage and feeding losses.

### Other things

Clearly, a well-developed winter feeding plan is essential to a profitable cow-calf operation. Although not the focus of this column, several other management considerations need to be addressed.

For those in the north, planning for and protecting cattle from the elements is key. Cows need to have protection from the wind, especially when temperatures are extremely cold. For cows maintained in drylots, pen maintenance and bedding need to be considered.

These environmental factors are essential to manage and need to be taken into consideration when

evaluating the nutritional needs for the cow herd. When temperatures drop below 5° F, intake can increase up to 25%. Ensuring access to water and managing health are always essential, and need special attention during the winter months.

Winter can be tough. The key to successful management is having a plan and planning for the unexpected. Work on reducing the number of days you need to feed stored or purchased feed. Identify the most economical feedstuffs, as well as the best storage and feeding methods for your operation.

Finally, remember that although nutritional management is arguably the most important management consideration during the winter, there are several other decisions to make. |

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Editor's note: "The Digestive Tract" is a regular column in the *Angus Beef Bulletin* focused on nutrition for the beef cattle life cycle. Dan Shike is associate professor in animal sciences at the University of Illinois.