

# THE DIGESTIVE TRACT

## Creativity below the surface

by Dan Shike, University of Illinois



I will never forget a conversation I had with my son when he was a young boy. He asked me what my job was.

When I was explaining that I did research on how to feed cows, he kind of gave me a confused look. After a long pause, he asked, “Don’t cows just eat grass or hay?”

I tried to explain that it wasn’t quite that simple, but I am pretty sure he was not very interested in what I had to say.

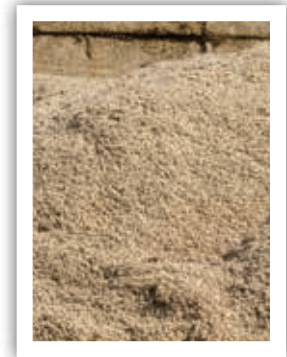
Honestly, it often is that simple — at least at the surface level. It is quite possible in some regions of the country to meet the nutritional needs of the cow herd by grazing

available forages. In other regions, cows have to be fed harvested and stored feed — typically hay — during the winter.

The approach used for managing grazing and winter feeding is where it starts to get more complicated. However, this is where there are opportunities to be creative in your management and add value or save costs.

### Get creative

Economic evaluations of cow-calf operations in many regions of the United States have resulted in similar themes. Feed costs (primarily winter feed) are the primary determinant of profitability. As a manager, what strategies are you using to



Winter feed costs are a primary determinant of profitability. Consider all options. Examples shown clockwise include hay, beet pulp and distillers’ grains.

reduce costs while still optimizing production?

One of the first things to consider is are we matching feed resources to the requirements of the cow? When cows are grazing, we have less control over this.

However, when we are

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feeding cows in a drylot situation, we have an opportunity to have far more control over matching feed resources to cow requirements. If the requirements of the cow are not met, then we will likely affect production (reproduction, calf weaning weight, etc.). If we are exceeding requirements, the biggest concern would be extra expense, but it could also negatively affect production.

### Classic choice

There are many viable feeding strategies that could be used for meeting the needs of the cow herd. Certainly feeding hay is one of the most common. It is essential to have hay tested so you know the quality of the different hay sources you have available.

Utilize poorer-quality hay when cows are in mid-gestation, or grind the poor-quality hay for use in a total mixed ration (TMR) with higher-quality feedstuffs.

High-quality hay should be saved

for use during early lactation, extreme cold, or for cows that are thin and need to increase body condition. If you only have high-quality hay, then limit-feed or limit time of access to that hay when cow requirements are lower.

Remember, cows do not eat to their requirement. Cows eat until they are full. Often with high-quality forages, cows will eat well beyond their requirement, and that just cuts into your profit.

### Creative options

For those willing to think outside the box, there are often opportunities to purchase alternative feed sources that will be more economical than traditional hay. These alternative feeds and creative strategies vary greatly from region to region.

Utilizing crop residues and crop byproducts has been a strategy researched extensively and adopted by many producers in the industry. In the Corn Belt, it is quite common

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to use cornstalk residue and dried distillers' grains with solubles (DDGS).

In other regions of the country, different byproducts would be more common. More unique opportunities, including bakery waste, grocery waste, candy waste, etc., exist. Although those alternative feedstuffs are not available to the masses, some producers have been able to capitalize on these opportunities and have greatly reduced their feed costs.

If you have a local opportunity on a potential alternative feedstuff, there are a few basic things to consider. First, it is essential to know the nutritional value of the feed and confirm there are no deficiency or toxicity concerns.

Transportation, storage and

feeding also need to be addressed. Is this a wet product that could spoil and has limited shelf life?

You also need to consider how consistent the feed will be, and if there is potential for interruptions in supply.

Finally, you will want to ensure there are no palatability issues with the feed.

In many cases these alternative feedstuffs are not single-ingredient feeding solutions, but moderate inclusion levels (20%-50%) result in significant cost savings.

Managing the nutrition of the cow herd can be pretty simple. However, managers who are not afraid to develop creative solutions have the opportunity to significantly reduce feed costs and increase profitability. ■

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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.