Consider the Alternative

While what classifies as an alternative feedstuff may have changed, considerations for use haven't.

by Troy Smith, field editor

Things are different now. There was a time when "alternative feedstuff" was a term used to describe an unusual livestock feed resource. Across the cattle industry, such resources were not widely used.

The term doesn't necessarily mean the same thing anymore.

"Fewer feedstuffs are considered 'alternative' now," says Matt Poore, an extension beef specialist in ruminant nutrition for North Carolina State University.

"Take soyhulls for instance," he continues. "Thirty years ago they were seldom used as cattle feed. They were a bargain for producers [who] first started using them as an energy source in cattle diets. Now soyhulls are a pretty mainstream feed resource. A lot of producers use them, and soyhulls aren't cheap now."

The processing of soybeans, corn, cotton and other crops has yielded an array of feed ingredients that may have been considered waste material when a few producers first dared to feed them to livestock, says Poore. Typically, such materials were available at low or no cost until awareness of their nutrient value grew.

Waste materials evolved into byproducts as demand grew and markets developed. With research and further development, many byproducts became value-added coproducts that are commonly used in livestock diets.

Of course, some waste products still exist.

One person's waste

"A cattle farmer I know uses fruit waste from a processor that packages fruit in those little individual-serving-size cups. The farmer picks up waste by the semi load, for free, and it makes good feed," says Poore.

"Also, there are a lot of small breweries across the southeastern U.S. that need to get rid of their spent brewers' grains," he

PHOTOS BY SHAUNA HERMEL


Potato


Apple


Onion

says. "They can be challenging to use, because they are a wet product. But brewers' grains represent an opportunity for some local cattle producers."

Waste from bakeries, candy manufacturers and fruit and vegetable processors still fit the old perception of alternative feedstuffs, but their use typically is localized due to limited supplies. Use of some byproduct feeds, such as wet distillers' grains, is far more common, but freight costs still limit their use to regions relatively near corn ethanol production.

There are many other feed resources, considered nontraditional in the past, that are commonly used in cattle diets.

"There are more options today," offers Poore, "so 'alternative feedstuffs' now includes anything that an individual producer hasn't used on a regular basis — any change from what's traditional on that particular operation."

Cost of convenience

Levi McPhillips agrees, calling distillers' grains a classic example of an alternative feedstuff that is now used widely, especially in growing and finishing rations. A ruminant nutritionist with Great Plains Livestock Consulting, McPhillips works with cattle producers from Texas to South Dakota. He's seen cow-calf operations across that region adopt distillers' grains for routine use in supplementing cow diets.

"Many producers tried it and kept on using it, but I'm still surprised by the number of cow-calf producers that don't like it or won't even try it," says McPhillips. "The most legitimate reason is they supplement with cake (range cubes), and they are already set up with overhead bin storage and cake feeders mounted on pickups.

"I get that, but it still might be worth comparing the costs," he advises. "A 30% [protein] cube costing $400 per ton of dry matter might be replaced with distillers' grains costing $300 or less — basically 75% of the cost of a cube."

McPhillips advises producers accustomed to buying any manufactured feed to study the tags and consider the costs of the nutrients, but also the cost of convenience. The latter is often very expensive. Find out whether the same ingredients could be purchased directly at a much lower cost.

Concentrate option

Drought-driven shortages of harvested forages often prompt producers to explore alternative feedstuffs. McPhillips says it is worth considering whether sources of concentrated energy, such as grains or byproduct feeds, could be economical substitutes for part of the forage normally comprising cow diets. For example, 1 pound (lb.) of corn, soyhulls or wheat midds can offset roughly 2 lb. of hay from an energy standpoint.


PHOTO BY GETTY IMAGES
Soybean

Gin trash

When home-raised hay is scarce and shipped-in hay is expensive, many producers have turned to alternative forages, such as baled crop residues. Among the most popular in recent years is baled cornstalks. However, cotton gin byproduct — sometimes called gin trash — is gaining traction on the Southern Plains. According to McPhillips, cattle eat it well, and it's very economical.

Matt Poore says cotton gin byproduct is a feedstuff that many southeastern producers tried out of necessity and subsequently adopted for routine use.

"It's easy to use, just like hay. Producers can get by with the equipment they already have," explains Poore. "Gin byproduct can be used in a total mixed ration, too, but a lot of producers put it in bale feeders and let their cows eat it free-choice. It has been economical — maybe half the price of hay."

Know the value

Poore says recurring drought is a likely contributor to an increased willingness to consider different resources. Some producers have purchased silage when effects of drought increased its availability. In grain-growing areas of the Southeast, more acres of cornstalks are being baled, but more cattle producers are using crop residues and cover crops for grazing. Contract grazing opportunities are increasing throughout the region.

For some producers, however, using

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alternative feedstuffs means only that the hay they feed has been outsourced.

"When you're short of home-raised hay, you buy hay. After all, nothing is as easy as what you're already set up to do, right? Sometimes that does make the most sense, but you have to know the value of what you're buying," Poore warns. "In some parts of the country, hay is often priced by the bale, not by the ton. It might be a great buy or it might be terrible, depending on what the bales weigh."

Buying sight unseen is risky, Poore warns. Nitrates can be a problem, especially in sorghum-sudan, millet or drought-stressed hay.

"Get it tested," he advises. "Always get a nutrient analysis, preferably before you buy outsourced hay."

McPhillips also advises producers to be conscious of value when buying byproduct or coproduct feedstuffs. Judging whether a resource is truly economical requires knowledge of its price per unit of energy and price per unit of protein. Testing will reveal nutrient levels needed to make the calculations.

"You need to know that information, and lab tests are cheap," states McPhillips. "If it's a really novel feedstuff, I'd encourage a producer to pay a little extra money for a wet chemistry test. That offers more detailed results, including mineral content. Some byproducts can contain high levels of certain minerals."

Considering how high annual cow costs are, and how feed accounts for a large portion of those costs, it also makes sense to seek out the most economical feed resources.

McPhillips reminds producers to be conscious of things that contribute to the total cost of a particular feedstuff, such as freight, handling characteristics that might require certain equipment, and shelf-life limitations. However, many producers have found that adapting their operations to accommodate alternative feedstuffs does make good economic sense for the long term.

McPhillips and Poore agree that it is wise to enlist help from a professional. A nutritionist can help producers determine their animals' nutrient requirements, based on stage of production or reproduction. A consultant can then help weigh the advantages and disadvantages of various feedstuffs and assist in selecting ingredients for balanced diets that meet animal requirements. ABB

Alternative resources

- Alternative Feeds for Ruminants, North Dakota State University, *https://bit.ly/3SbLLJX* — Extensive resource including a table of nutrient content for various feedstuffs, from alfalfa to wild oats.
- How To Evaluate Byproducts in Beef Cattle Diets, Oregon State University, *https://bit.ly/3RSyXqs*.

Editor's note: Troy Smith is a freelance writer and cattleman from Sargent, Neb.