Range Beef Cow Symposium XX

Dec. 11-13, 2007 • Larimer County Fairgrounds and Events Complex, Fort Collins, Colo.

Using Byproduct Feeds in Cow-Calf Programs

by ***Troy Smith***

FORT COLLINS, Colo. (Dec. 12, 2007) — Leading off Tuesday afternoon's discussion of cow-calf nutrition at the Range Beef Cow Symposium at Fort Collins, Colo., University of Nebraska Extension Beef Specialist Ivan Rush offered producers tips for choosing and using various byproduct feeds.

Range Beef Cow Symposium XX is being hosted by the cooperative extension services and animal science departments of Colorado State University, South Dakota State University, the University of Wyoming and the University of Nebraska at the Larimer County Fairgrounds and Events Complex Dec. 11-13.

Most commonly, Rush said, byproducts of the oilseed and corn-milling industries have been considered as sources of protein to supplement cows consuming diets consisting of low-quality roughages. However, in many cases corn-milling byproducts may serve as sources of protein and energy.

Rush emphasized the importance of knowing the nutrient content of any byproduct feed, including levels of protein, energy and minerals. It's also important to know the moisture content.

"The thing that many producers don't pay enough attention to is amount of water in the byproduct. Small variations in moisture content can change the true feeding value dramatically. That can make a big economic difference," Rush explained.

PHOTO BY TROY SMITH

►Ivan Rush

"All feeds should be priced on a dry-matter basis."

Rush said crude protein value is usually listed on a feed sack tag or included in a laboratory analysis, but that doesn't tell the whole protein story. It doesn't tell the amount of protein that is available for digestion in the rumen, and how much might be bypass protein. A consulting nutritionist can help determine the true value of crude protein. An accurate estimation of energy [total digestible nutrients (TDN) and net energy (NE)] also is advisable.

Corn byproducts have gained popularity, particularly in areas near processors. According to Rush, these feeds can fit almost any diet for growing cattle, developing heifers and cows. Along with being excellent sources of protein, energy and phosphorus, they do not lower digestibility of forages, unlike feed sources that are high in starch. For this reason, higher levels of distillers' grains, for example, can be fed when more energy is needed or as a substitute for part of the forage in cow diets.

"Dried distillers' grains complement wintering programs based on low-quality hay quite well. One to three pounds (30% protein) will usually meet cow requirements for protein," Rush said.

The product handles and stores reasonably well, whether it's in pellet, cube or meal form. Many ranchers report very little waste when feeding on frozen ground, even with meal. And even if 10%-15% were wasted, the price may be competitive with alternative feeds. Wet product is priced lower per ton, but it contains a considerable amount of water. That adds to freight costs, and wet product presents challenges for storing and feeding.

With regard to oilseed byproducts, Rush said, cottonseed products have been fed by

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Using Byproducts Feeds CONTINUED

generations of ranchers. Cottonseed remains one of the best protein supplements for range cows, but is not as economical as in the past. Soybean meal provides high-quality protein, but demands a relatively high price. Sunflower meal has become more plentiful and is being used in commercial range cubes. Rush says sunflower meal tends to be variable in nutrient content, and protein quality usually is not as high as in other oilseed byproducts unless all of the hulls have been removed.

Which byproduct should ranchers choose? Rush advised use of least-cost analysis based on delivered prices. Often, he added, a good decision can be made by concentrating on the cost of the most needed nutrient and figuring the cost per unit of that nutrient.

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