



# Cow Camp Chatter

by **RON TORELL**, *long-standing educator and advocate of agriculture*

## Consider your herd's energy needs this winter

Historically, man has been known to spend much of his summer preparing and storing food and firewood for the long winter ahead. Today, many in the livestock industry essentially do the same thing. They spend a good deal of the summer harvesting hay and then pitching it off during the winter.

The late Ferris Brough of Clover Valley, Nev., once explained: "After the severe winter of 1948-49, many ranchers began putting up hay. We would count the haystacks in late fall and divide them by the number of days we anticipated the winter feeding period being. This is how we balanced the ration for our cows. Our objectives were to keep animals alive."

Now, due to a differing economic climate, we need more than survival of our livestock through the winter. We need production in the form of a live calf plus breed-back the following spring.

### **Build your savings account**

During the extreme cold days of winter

when you find yourself making extra trips to the woodpile, consider your livestock. Both you and your cattle need additional energy to overcome the elements. Just as wood storage is important to man for easy energy access throughout the winter, energy storage for your livestock in the form of fat reserves, or body condition, is equally important.

Think about body condition on a cow as a savings account. Added body condition is stored energy available to animals to draw from in time of need and also serves as insulation. The bigger the savings account (i.e. subcutaneous fat), the greater the ability to withstand colder temperatures.

Thin cows require more winter feed energy for maintenance due to the lack of banked fat reserves. Adding body condition to thin cows during the second trimester of pregnancy before winter weather hits is much more economical and obtainable than trying to play catch-up during the last trimester

of pregnancy and the coldest portion of the winter.

### **Critical temperatures**

Dry-matter intake (DMI) increases as much as 30% with cold, windy and wet weather. Cattle handle one or two days of cold weather rather well. Cold stress occurs when animals are exposed to extreme weather conditions that put them below their lower critical temperature.

For cattle with a dry winter coat, the lower critical temperature is 32° F. If the coat is extra heavy, that number drops to 18°. If the normal coat is wet, however, the lower critical temperature may become 60°.

A general rule of thumb is that for every 1° the temperature drops below 32°, increase the ration energy by 1%. Keep in mind that sustained periods of cold may warrant a ration modification and increased quantity of feed. Heat generated during the digestive process (fermentation in the rumen) helps

maintain core body temperatures. By increasing feed intake, we are aiding this digestive and heat-generating process.

### **Hardwoods vs. softwoods**

There are several different terminologies for discussing energy. For the purpose of developing livestock rations we often refer to energy content of feed as total digestible nutrients (TDN) as a percentage of dry matter. The higher the TDN content, the more energy availability to the animal.

When referring to the energy content of wood, the basic measure of thermal (heat) energy is known as a BTU, short for British thermal unit. Very soft woods, such as poplar and spruce, have about half the BTUs per cord compared to hardwoods, such as white oak or mahogany.

In respect to energy content, feeds such as meadow hay and straw could be considered softwoods, while feeds such as corn and barley could be regarded as the hardwoods of feed selection. Based on energy content, softwoods should cost about half as much per cord as hardwoods. However, processing, transportation and storage costs are the same regardless of species, so while the price of softwoods may be lower, the value is considerably more than half the value of hardwoods.

Basically the same can be said about pricing of feeds. Nevertheless, because of something called the heat of fermentation, the value of softwoods to

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help cattle deal with extreme cold weather should not be discounted. Generally speaking, those softwoods (forages) do a better job of keeping the fire burning in the rumen than the hardwoods (grains), which in turn helps keep your cattle warm during the colder evening hours after feeding. The hardwoods will do a much better job long-term of providing the energy to help lay down fat reserves.

### **Sort into groups by need**

Body condition, a good healthy hair coat, dry ground and/or bedding, windbreaks such as willows and trees, and a full rumen are all important in assisting our livestock with their energy needs during inclement weather. For these reasons, it's important to sort animals by age, body condition and feed requirements based on their stage of production.

In essence, we are sorting the animals demanding higher nutrient levels into the hardwood feeding group and the cattle demanding lower nutrient levels into the lower-cost softwood ration group.

It is not the intent of this article to suggest energy is the only nutrient

that should be considered in the ration formulation for our livestock. Quantitatively, energy is often the most important item in an animal's diet during the cold conditions found during the winter months. Ration formulations are based on energy as well as protein, vitamins and minerals. Water also needs to be monitored, since water regulates feed intake, and oftentimes an adequate supply of water is restricted during freezing temperatures. All these elements should be considered when developing a ration for your livestock.

This winter, as you add another log to the fire or go for that second bowl of chili, remember how those same energy needs apply to your four-legged friends, as well.

That's enough for this month. As always, if you would like to discuss this article or simply want to talk cows, do not hesitate to contact me at 775-385-7665 or [rtbulls@frontier.com](mailto:rtbulls@frontier.com).



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