



## Prepare for Your Winter Supplement Needs Now

By Jackie Nix, Nutritionist

Fall is here and winter is just around the corner. Now is the time to start thinking about your winter-feeding program and any supplements that you may need to purchase. Adequate nutrition is vital for both the calf and cow in terms of health and productivity. When nutrition suffers during the winter months, cows lose weight and are harder to breed back in the spring; cows produce less milk and thus weaning weights suffer; and calves are less thrifty and more susceptible to death, disease and parasites. However, on the flip side, it is important to supplement only what is necessary without wasting feed or money in order to remain profitable. The costs associated with winter-feeding account for 40 to 50% of the total cost of producing weaned calves.

### **General Cattle Nutrition**

In order to make informed decisions regarding nutritional supplements, it is necessary to understand some of the basics of cattle nutrition. Cattle are ruminants, meaning that they have a stomach with four compartments. The first and largest compartment, the rumen, acts as a large fermentation vat that houses a population of bacteria and protozoa. The last compartment, the abomasum or true stomach, functions similar to a human stomach. Cattle require proper amounts of five classes of essential nutrients in order to thrive and achieve maximum production and efficiency. These nutrients are energy, protein, minerals, vitamins and water.

Energy is the first limiting nutrient in a cow's diet and represents a major portion of a cow's needs. Energy is the "fuel" that allows a cow to function. Energy needs are typically expressed in terms of total digestible nutrients (TDN). Most of the energy needs of cattle are met through the fermentation of forages and roughages in the rumen, allowing cattle to utilize feeds that are useless to non-ruminants. Other energy sources include carbohydrates (primarily supplied by grains), sugars (from sources such as molasses) and fats.

Protein is composed of amino acids, which the body uses as "building blocks" for body tissues. In ruminants, the bacteria and protozoa in the rumen actually digest forage protein and convert it into microbial protein. This microbial protein is then digested and absorbed in the abomasum and small intestine. These microorganisms are capable of converting non-protein sources of nitrogen (NPN) such as urea, into the same microbial protein under normal conditions. Since the cow cannot differentiate between the microbial protein produced from natural forages and that produced from NPN, urea is often added as a way of economically increasing effective protein levels in supplements. Because a functioning rumen with a good population of microorganisms is necessary to effectively convert NPN into protein, it is advised that NPN-containing supplements be utilized for only mature cattle. Lightweight, growing cattle cannot adequately utilize NPN and benefit more from receiving supplements containing natural protein.

Minerals and vitamins are also essential to proper nutrition. Since mineral and vitamins levels vary in forages and feeds, always provide free choice access to a complete mineral and vitamin supplement containing salt to avoid deficiencies in your cattle. Avoid use of plain white salt blocks or trace mineralized salt blocks.

Water is often overlooked as a nutrient but is vitally important for cattle nutrition. Clean water is most important to young, growing calves. Inadequate water consumption will limit feed intake and reduce growth and performance. In general, cattle drink about ½ gallon water per lb. of dry matter intake (~ 10 gallons/day for a 1000 lb. mature cow); however, water needs will vary considerably with temperature and other factors.

### **How Do I Know if I Need a Supplement?**

During winter months, most cattle producers rely primarily on hay to provide for their cattle. Good to high quality hay is an excellent feed source for cattle. However, hay quality varies greatly from year to year and even cutting to cutting. Environmental factors like this summer's drought can adversely affect hay quality, as well as man-made factors like improper fertilization and harvesting.

Because hay represents such a large portion of a cow's diet and hay quality varies so much, it is strongly recommended that you chemically analyze your hay source(s) for nutritional content. This service is modestly priced and will save you money in the long run. By testing your hay, you will know its exact nutritional content and will allow you to make better management decisions. Contact your local feed dealer or local Extension agent to learn more about this service.

Knowing the nutritional content of your hay will allow you to more efficiently allot hay according to the cattle needs. As a rule of thumb, young, growing bulls have the highest protein and energy requirements and should get the best quality hay, followed by young, growing steers, replacement heifers, lactating cows, dry cows and mature bulls. Knowledge of the nutritional content of your forages will also allow you to save money by purchasing the correct supplements to meet the needs of your cattle – no more, no less.

Average bermudagrass or fescue hay will fail to meet all of the protein, energy and mineral needs for lactating cows and growing steers and heifers, especially in a drought year. If you have not had your hay tested, it is best to assume that these groups of cattle need supplementation. Poor quality hay (stemmy, over-mature hay) should be fed to dry cows and mature bulls whenever possible, but even these groups may need protein and energy supplementation if they are not in good flesh entering the winter months. A good mineral supplement is always recommended when feeding hay to all groups of cattle in order to prevent deficiencies.

### **What Types of Supplements Are Out There?**

Nutritional supplements come in all shapes and sizes and range from commercially produced tubs, blocks or pellets to natural feedstuffs known to be relatively high in protein or energy such as soybean meal or corn. Choosing which type is best for your operation will vary according to individual circumstances. In many cases a variety of supplement products will best meet cattle needs. Contact your local Sweetlix® representative for more information.

### **The Sweetlix® Protein Supplements available**

Sweetlix® offers a wide variety of protein supplement products to allow the greatest amount of flexibility for cattle managers. Here are a few of the Sweetlix® cattle supplements available through your local Sweetlix® dealer.

### **EnProAl® 16% & 20% Supplements**

- All natural protein supplements ideal for all classes of cattle
- Deliver same amount of magnesium as high-mag minerals to help protect against grass tetany
- 55 to 60% TDN – up to 15% more than “poured” block formulas
- Predictable feed costs (regular and consistent consumption of 1-2 lbs per head per day)
- Convenient, self-feed tubs – no labor supplementation option
- Recommended that you provide an additional complete Sweetlix® loose mineral supplement

### **EnProAl® 24% & 25% Supplements**

- Ideal for cattle on low quality forages
- Added non-protein-nitrogen for optimal forage utilization and economical feed conversion
- Deliver same amount of magnesium as high-mag minerals to help protect against grass tetany
- Predictable feed costs (regular and consistent consumption of 1-2 lbs per head per day)
- Convenient, self-fed supplement
- Recommended that you provide an additional complete Sweetlix® loose mineral supplement

### **VMS® Kowpoke 37% Pressed Block**

- Smaller size (33.3 lbs) easily maneuvered without heavy equipment – ideal for smaller herds
- High protein with added NPN ideal for cattle on poor quality roughages
- Predictable feed costs (regular and consistent consumption of 1-2 lbs per head per day)
- Weather-resistant blocks can be placed right out in the pasture with cattle

### **Sweetlix® 38% Cotton Classic Pressed Block**

- Smaller size (33.3 lbs) easily maneuvered without heavy equipment – ideal for smaller herds
- High protein content ideal for supplementation of mature cattle on poor quality roughages
- Added NPN maximizes forage utilization
- Visible whole cottonseed and corn boost energy levels and palatability

In summary, when forage quality is lacking, nutritional supplements are necessary to maintain reproductive and growth performance. Cattle supplements pay for themselves in added production when used properly. For more information about the Sweetlix® line of protein supplement products for cattle and information to help you decide if they will fit into your management situation, call **Sweetlix®** at 1-87SWEETLIX.

*Jackie Nix is an animal nutritionist with Sweetlix® ([www.sweetlix.com](http://www.sweetlix.com)). You can contact her at [jnix@sweetlix.com](mailto:jnix@sweetlix.com) or 1-800-325-1486 for questions or to learn more about the Sweetlix® line of mineral and protein supplements for cattle, horses, goats, sheep and wildlife.*



*Cattle consuming a Sweetlix 24% Poured Protein block in a 250# box. The box is biodegradable and can be eaten by the cattle to avoid container disposal worries.*

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