

FEED FOR THOUGHT

News For Cattlemen From Suga-Lik® A Product Of U.S. Sugar Corp.

Optimizing Forage Utilization

Chet Fields, Ph.D, PAS

Among the nutrients essential for the life and productivity of cattle are oxygen, water, numerous minerals, a source of nitrogen (either soluble protein or non-protein nitrogen), two fatty acids, vitamins A, D, and E, and energy.

The greatest winter supplementation cost for cattle grazing poor quality forages is **energy**. Therefore, it's economically important to get as much energy from your forages as possible. Many folks equate energy with "total digestible nutrients" (TDN). Some facts you should consider when interpreting TDN values are:

- TDN includes both digestible energy and digestible protein. If you take protein out of the TDN equation you have digestible energy or "DE."
- Protein is usually an extremely expensive energy source; therefore, feed only as much as is required.
- Since the digestibility of virtually all nutrients varies with feed intake, TDN and DE are not constant. They vary with feed intake.
- Almost all essential minerals and vitamins influence your forage's digestible energy. *That's one reason they're essential!*

With this background information, let's consider some ways to improve digestible energy derived from your existing forage and supplement programs.

First, remember that your University of Florida IFAS specialists have a great deal of information regarding the digestible energy among various forage species and varieties. When renovating pastures – STOP, and take a few minutes to discuss with the IFAS folks if you should consider a different forage variety that will provide more efficient digestible energy yield. Also, have them critique your fertilizer, pest control, and haying programs. The goal when talking to these folks is, "I want to optimize the cost of digestible energy produced on my ranch."

During the period of highest supplemental feed cost (October through January), Bahia forage consists of 76% "Neutral Detergent Fibers" (NDF). This should be your focal

point since it's relatively easy and economical to improve fiber digestibility—which in turn increases digestible energy. If the cow's rumen microorganisms don't digest this fiber, the energy it can provide is lost!

To maximize fiber digestibility and minimize this loss of energy be aware that your supplemental feed choices have a significant impact upon fiber digestibility and digestible energy yield.

For example, availability of highly soluble nitrogen (protein or urea) is widely recognized as the first limiting nutrient for the growth of fiber-digesting rumen microorganisms in cattle grazing poor quality forages. An added advantage is the protein quality of rumen microorganisms is superior to most other sources of "natural" protein. Increasing the growth of rumen microorganisms increases the cows metabolizable protein supply. This is beneficial in achieving target reproductive performance and calf weaning weights. Similarly, it's known that presenting nitrogen and energy to the rumen microorganisms "at the same time" (synchronized) will result in more rapid growth of the rumen microorganisms, which in turn further increases fiber digestion, digestible energy, and the quantity and quality of protein to the cow.

Source of supplemental fat may also influence fiber digestion and hence digestible energy provided by the fiber. Fish oils have been shown to increase fiber digestibility. Although fish oils of marine origin may increase fiber digestion, these oils also depress feed intake. In contrast to marine-based oils, fresh water catfish oil has been shown to increase fiber digestion and feed intake. This may be especially beneficial on first and second parity heifers. Because Fully Fortified™ Suga-Lik® supplements containing catfish oil are extremely palatable, limit feeding may be appropriate.

Supplemental starch or sugar also affects fiber digestion. As long as adequate soluble nitrogen is available to rumen microorganisms, starch and sugar supplementation have both been shown to improve fiber digestion and hence digestible energy. With adequate soluble protein, starch has been shown to improve fiber digestion in low quality forage by approximately 2%; whereas the sugars found in molasses and Fully Fortified™ Suga-Lik® supplements have



been shown to increase fiber digestion by approximately 8%. Again, synchronization of presenting protein (nitrogen), supplemental starch or sugars, and the minerals essential for the optimum growth of rumen microorganisms is very important to optimal fiber digestion and forage utilization.

At U.S. Sugar we're diligent to assist you in achieving optimum energy utilization from your forages. Our Fully Fortified™ Suga-Lik® supplements contain optimum levels

of soluble protein, essential minerals, and sugars to assist you in getting the most out of your forages. The quality and quantity of vitamins essential to your cattle performance goals are also included. In addition, Fully Fortified™ Suga-Lik® supplements are designed to be fed free choice thus assuring the "synchronized" presentation of nutrients to rumen microorganisms.

References to this information are available upon request.

Improve Consumer Confidence - Feed Certified Feed

Pat Whidden, PAS

This past spring's "Canadian BSE cow incident" got the media all fired up! Most news purveyors were on a mad cow alert!! Interestingly, East Coast lounge fires this year have killed more people than v-CJD, world total. At this writing (mid June), I hope that it's the last time the media has any reason to report about BSE.

Today, there is no BSE in the U.S. The recent multi-year risk analysis published by Harvard University says, "The U.S. is highly resistant to any introduction of BSE." Further it said, "Measures taken by the government and industry make the U.S. robust against the spread of BSE to animals or humans should it be introduced." Perhaps the most significant measure was the federal FDA's 1997 rule banning the feeding of most mammalian proteins to ruminants. Shortly after that, many of you asked for and received assurance from your feed suppliers that this was so.

Can you know for certain? You can be darn sure if your supplier is FCI certified! The Facility Certification Institute (FCI) is an independent, third party certification organization (you might think of it sort of like the Good Housekeeping Seal of Approval) for the feed industry. Your feed supplier may not want to use banned protein products; he may tell you he's not. But to be sure, he should be inspected and certified. The FCI inspection process is more rigorous than the FDA inspection. FCI inspection is annual, whereas the government's isn't. If your feed supplier displays the FCI seal, you can be assured he's had to pass a stern inspection of his facilities, processes, procedures and paper work.

As a cattleman, you should also understand the rule. *For example*, if you're feeding bulk commodities, you should be sure the truck did not haul any prohibited protein products. I'd advise against feeding pet food, poultry feed, and poultry litter to cattle. You should assure yourself that you're doing all you can to be a responsible feeder.

I advise you to look for the FCI seal. That's one way to know for certain. For a list of FCI approved facilities, check the website www.certifiedfacility.org. By feeding products produced in an FCI-approved facility, you can safely assure your customers that you're abiding by the rule.



DEALERS

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Owens Liquid Feed
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West FL Farmers Co-op
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Phil McClure's Feeds
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Mayo Fertilizer & Farm Supply
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Myakka Farm Supply
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