The Latest Across the Plains

Timely Reminders

General

- Water is the most important nutrient, and needs to be available in the liquid form.

Beef

- Keep cattle bedded during harsh conditions.
- Remember before and during a storm to put finishing cattle on storm ration or back up one ration.
- Talk to your nutritionist about a highly fortified breeder mineral to improve conception rate.
- Switch cowherd to Calving & Breeding Mineral 60 days prior to calving.
- Vaccinate cows for scour protection.

Unused Feed

Timing has a lot to do with the outcome of a rain dance.

Save Money $$$ Test Your Feeds

Tests are relatively inexpensive, usually costing less than $18, for the information derived. Contact our office to set up an appointment to have us pull feed samples if we have not done so yet.

What's New in the Industry

China has rejected some shipments of corn and DDG.

We want to hear from you...

Do you have a question you would like one of the nutritionists to address in depth in our newsletter? Just submit your question through our website www.GPLC-Inc.com and we will get to work on it.

Calendar of Events

- **Jan 24 - 26** Power Show Ohio, Columbus, OH
- **Jan 28 - 30** International Production & Processing Expo, Atlanta, GA
- **Jan 28 - 30** Iowa Power Farming Show, Des Moines, IA
- **Jan 29 - 30** Midwest AG Expo—Illinois, Gifford, IL
- **Feb 4 - 5** Minnesota Grain & Feed Convention & Trade Show, St. Cloud, MN
- **Feb 4 - 6** Spokane AG Expo and Pacific Northwest Farm Forum, Spokane, WA
- **Feb 4 - 7** Natl. Cattlemen's Trade Show & Conv., Nashville, TN
- **Feb 5 - 7** Southern Farm Show, Raleigh, NC
- **Feb 9 - 6** Iowa Beef Expo, Des Moines, IA
- **Feb 11** UNL Beef Feedlot Roundtable, Bridgeport, NE
- **Feb 11 - 13** World Ag Expo, Tulare, CA
- **Feb 12** Eastland Feed & Grain, Inc. Beef Meeting, Shannon, IL
- **Feb 12** UNL Beef Feedlot Roundtable, Lexington, NE
- **Feb 13** UNL Beef Feedlot Roundtable, West Point, NE
- **Feb 12 - 15** National Farm Machinery Show, Louisville, KY
- **Feb 15 - 23** Nebraska Cattlemen's Classic, Kearney, NE
- **Feb 20 - 21** USDA Agricultural Outlook Forum, Arlington, VA
- **Feb 20 - 23** Illinois Beef Expo, Springfield, IL
- **Feb 21 - 23** Western Farm Show, Kansas City, MO
- **Feb 27 - Mar 1** Commodity Classic, San Antonio, TX

The Great Plains News Feed

Meeting Your Cow Condition Target Efficiently, Old Paradigm, New Shift

By Dan Larson, Ph.D., Nutritionist

It may seem a bit late to many to be reconsidering how to winter cows with January upon us. However, recent changes in feedstuff, especially protein, prices and the winter up to this point has many a producer scrambling to find alternatives and additional feeds. Without question, feed cost is the single largest line item in a cow budget. However, skimping on nutrition is considerably more costly. The exceptionally cold winter many have experienced has left producers wondering how much additional feed they will need and the most cost effective sources to rely upon.

Energy and protein are the two most limiting nutrients in a cow nutrition program. Traditional cow nutrition programs relied on high quality hays and silage, however, these programs have fallen out of economic favor due to the high cost. In their place, high fiber, relatively poorly digestible feedstuffs, such as corn stalks, soybean stubble, and low quality hays have taken their place. In order to provide adequate nutrition, nutritionists have used high protein corn co-products to meet both energy and protein needs. In the past few years, these feeds have been both cost effective and relatively abundant. It is of no minor significance that meeting protein requirements with corn co-products also met energy needs in many cases, eliminating the need for silages or high quality alfalfa. However, as referenced by Dr. Fanning's article in this same newsletter, corn co-product prices (down 10-15%) have not come down relative (2012 to 2013) to corn (down 43%) or hay (25-35%) prices. Rather, co-product prices have followed protein prices and remained elevated. They are still a good value per unit of protein compared to soy or commercial protein sources, but should only be used to supply protein in many cases, not energy. Urea (NPN) has been proven useful in beef cow rations, especially where low quality forages are the base ingredient. However, urea provides no energy, similar to many commercial protein supplements. A better strategy may employ a combination of corn co-products, NPN, and energy supplements such as high quality forages, grass silages, grain silages, or even corn. Regardless of the source, be certain to keep energy in mind when designing a cow feeding program.

Throughout the course of the most recent drought and subsequent aftereffects, the importance of mineral and vitamin nutrition has become more evident. Low quality forage sources are not only deficient in energy and protein, but relatively devoid of vitamins and trace minerals. The availability of trace minerals in most forage sources is very poor, but may help mask some of the signs of deficiency in the absence of commercial mineral supplementation. However, when low quality forages are utilized, the symptoms become rapidly evident without appropriate vitamin and mineral supplementation. Be certain to work with our nutrition staff to design the best cow mineral program to suit your individual cow feeding program.

The best gauge of a cow nutrition program is body condition score (BCS). The most common BCS system runs from a 1 to a 9 BCS. This can be determined visually and by palpation or by a combination of methods. In order to ensure that a cow becomes pregnant every 365 days, she must meet her BCS target prior to calving. Young cows (2-4) should achieve a BCS 6 prior to calving, while a running age cow should meet a BCS 5.5. The target of course depends on your environment and milk production. However, a cow who calves in too low a BCS will not resume cyclic activity in time to rebreed and calve in a 365 day window. The extreme cold many areas of the country have experienced is certainly a stressor. Lower critical temperature (LCT) is the temperature at which energy requirements increase due to environment. However, a cows LCT is influenced by insulation, namely haircoat, bedding, and shelter. The LCT for a beef cow with a heavy, DRY, well groomed, winter coat is 18 F. The LCT for a cow with a wet haircoat is 59 F. For every 1 degree F drop below the LCT, maintenance energy requirements increase by 1%. Therefore, a cow with a dry winter coat at 17 F will require 1% more energy, whereas a cow with a wet coat requires 42% more energy at the same temperature. Bedding in cold weather is essential to reduce maintenance energy by keeping cows dry, as is a wind break. Obviously wind reduces ambient temperature, increasing energy requirements. Under normal circumstance, cows will increase intake to meet higher energy requirements . However, it may be more economical to increase ration energy density in times of extreme cold. A nutritionist is your best re-

source to take advantage of the huge number of options to maximize profit in your cow enterprise, talk to us today!

What Level of By-Products Should Be Fed?

By Ki Fanning, Ph.D., PAS Nutritionist

For the last two decades we have been using by-products to meet the protein needs, and in many cases some of the energy needs, of beef cattle. Feeding corn gluten feed and/or corn distillers grains has been very economical for both the cow/calf industry as well as the feedlot industry. Feeding corn gluten feed or distillers grains has alleviated several problems, such as bunk management due to slower fermentation rates, availability of roughage due to the ability to feed corn stalks, and purchasing cattle too high by lowering feed costs. However, during the last two years, the price of gluten feed and distillers grains relative to corn has narrowed making the economics of using them much less profitable. In fact, over the last several months in certain areas of the country, gluten feed and distillers grains have become higher priced per unit of energy than corn and in a few instances are higher priced per unit of protein compared to urea. As by-product pricing changes relative to corn, the level of both by-products and corn used in the diet should also change in order to maintain cost effective rations

Currently, in some cases, it is cheaper to use urea and corn as protein and energy sources than to incorporate gluten and distillers grains into the diet (we will be glad to help you do an economic analysis on this strategy). However, we do not recommend meeting all the animal's protein needs by feeding urea (NPN = non-protein nitrogen) as the sole protein source. In fact, Kansas State University trials show that feeding a combination of urea and natural protein out-performs a diet with only all natural protein or one with only NPN.

Although corn/urea based diets were commonly fed 20 years ago, there are a few management practices that many of us need to tighten up to ensure we minimize digestive upsets if we go back to feeding cattle without byproducts. Bunk management is the top priority. Each bunk should be read in the same order and at the same time (within ±15 minutes) every day. Additionally, each pen of cattle needs to be fed at the same time every day, and cattle should have the bunks slicked up 2 to 8 hours prior to the next feeding, depending on the number of feedings per day. The cattle should not be charging the bunks in most situations.

Feed processing is another area that will need stricter management. If the grain is rolled, the rollers need to be in good repair so that it produces a tight particle size distribution and does not create much dust. If the grain is flaked, the flake density should be 28 pounds per bushel. Moisture consistency is extremely important so the amount of corn, on a dry matter basis, is consistently delivered. If possible, use multiple processing methods (i.e. dry rolled corn and high moisture) to create a wider distribution of fermentation rates. This reduces large spikes in acid production, minimizes cases of bloat and may improve feed efficiency. The roughage length needs to be between 0.5 and 2.0 inches long to prevent animals from sorting feed, which is one of the many causes of acidosis/bloat. In order to achieve this length of grind on corn stalks or CRP hay, the screen size in the grinder needs to be two 3 inch screens or one 3 inch and one 4 inch screen. If it is very dry and tender alfalfa hay, then an inch larger screen is recommended.

Starting cattle on feed without wet by-products in the ration is more challenging, and you need to be sure you have a plan for receiving and starting the cattle. See the Sept/Oct GPLC newsletter for an article devoted to this topic.

In summary, feeding a ration without corn gluten feed or distillers grains requires greater bunk management, more focus on feed processing, and greater diligence when starting cattle. With proper management and a disciplined purchasing program, profitability can be maintained. Let us help you with diet and supplement formulation as well as profit projections to aide in your cattle feeding success.

As always, please give us a call with any questions or concerns that we might be able to help you with. Additionally, we at Great Plains Livestock Consulting, Inc. hope you had a Merry Christmas and wish you a happy and prosperous 2014.

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The Great Plains News Feed

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January/February 2014