



Great Plains Livestock Consulting, Inc.

20255 Adams Street
Eagle, NE 68347



The Great Plains News Feed



Great Plains Livestock Consulting, Inc.

Phone: (402) 781-9378

Fax: (402) 781-9379

www.GPLC-Inc.com

May/June
2008

The Latest across the Plains



Busy, Busy

It's that time of year when everything seems to be happening at once. Planting, calving, and breeding are going on along with the kids' prom, track meets, and some with preparations for graduation. It can be stressful, but know that Great Plains Livestock Consulting is here to take care of your animal nutrition needs and help put your mind at ease.

Keep Up-to-Date

If your internet homepage is set to us or somebody else you can still personalize the market quotes on our website with your own portfolio. Check us out at www.GPLC-Inc.com powered by DTN™. At the top of our webpage, above the bar of pictures, visitors can click the "Portfolio" tab and create a personalized list of market quotes. Simply use the guide to reference symbols for quotes to be viewed and that quote list will be saved on your computer for your next visit to our website to view your portfolio. Also, there is a link at the bottom of the portfolio page to get Future prices and Cash Bids e-mailed to you each morning from DTN™. Change your portfolio as often as you want and whenever you want.

Since our last newsletter was published we have seen an increase in the number of people viewing our website. We continue to update our "Livestock Sources" link with producer information, and based on your feedback we will be providing some new website information. Our "About Us" page has pictures and biographies of our nutritionists and staff. We will begin posting articles that each nutritionist has written or articles that they believe our clients and producers will find as an effective tool for improving your operation. This section may potentially grow into something more, but for now it will contain articles for your viewing.

Advertise with Us

We are expanding our "Livestock Sources" link to include advertisements from producers and businesses. We believe our website can serve as a dynamic marketing tool and reach a variety of people to help you promote products or services. To post an advertisement we need the right information. Go to our new "Classified Ads" link on our website and at the top of that page is a link to complete an advertisement form which will be submitted to us for publication. If you would like to post permanent contact information on our "Livestock Sources" link then you may submit a form via that link that will be submitted to us for publication. Please contact the office or speak with Brent Nelms with any questions.

Staff



Ki Fanning, Ph.D., PAS

Ruminant Nutritionist
Cell: (402) 890-5505
Ki.Fanning@GPLC-Inc.com

Jeremy Martin, Ph.D.

Ruminant Nutritionist
Cell: (402) 890-5507
Jeremy.Martin@GPLC-Inc.com

Jason Schneider, Ph.D.

Monogastric Nutritionist
Cell: (402) 560-4052
Jason.Schneider@GPLC-Inc.com

Bill Chapman, M.S., PAS

Dairy Nutritionist
Cell: (402) 416-3277
bill@cmpdairy.com

Stan Smith

Office Manager
Stan.Smith@GPLC-Inc.com

Brent Nelms

Office Assistant
Brent.Nelms@GPLC-Inc.com



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Timely Reminders

Beef

- ✓ With breeding season approaching, be sure to have bull's fertility checked.
- ✓ Consider addition of Rumensin, Bovatec, or Gainpro to mineral for yearlings on pasture; all will improve performance.
- ✓ Give us a call if you need help designing a synchronization program for cows or heifers.
- ✓ Feed a Mag Mineral (6-8%)
- ✓ Worm cows

Swine

- ✓ Check feed budgets to control over feeding expensive diets.
- ✓ Check feeders/waters for waste control.
- ✓ Consider using Paylean to maximize profits.

Energy is Not a Nutrient



by Dr. Ki Fanning, Ruminant Nutritionist and Dr. Jason Schneider, Monogastric Nutritionist

Energy is not a nutrient; it is an estimate of performance, usually measured in tissue accretion or milk production. Energy of a feed can be measured by feeding an animal in a metabolic chamber, which measures the energy in the urine, feces, gases, and body heat. The remainder of the unaccounted energy (retained in milk and meat production) is the Net Energy of the feed. An alternative to this method, which labs use when reporting feed nutrient analysis, is analyzing for a nutrient(s) such as ADF (Acid Detergent Fiber) and calculating energy based on ADF. This method works well on "traditional" feeds such as corn, soybean meal, and common forages, but does not work well on feeds that are relatively new to the industry or fermented feeds such as soybean hulls, wheat midds, distillers, gluten, and corn silage. The reason the energy equation of ADF does not work well for these feeds is that they contain a higher level of ADF but are also higher in digestibility than most forages would be at the same ADF level.

Since the first method is very costly and the second is inaccurate we use the energy values reported in research trials. These are determined by feeding two similar diets (control vs treatment) except one contains the feed in question which replaces corn, if it is in a finishing trial. Depending upon the performance of cattle on the treatment diet, either being better or worse than the control diet, the energy value assigned to the feed in question is greater than or less than the corn value. For example, a treatment diet with wet distillers replacing half the corn in which the cattle gain and convert better than a traditional corn/hay diet would report that wet distillers grain has a greater energy value than corn and by using regression equations an energy value can be calculated. This calculation is accurate because actual cattle gains and feed efficiency are known, and it is possible to predict how much energy it takes to produce the performance difference.

With ruminants, energy is even more complicated because of the bacteria's ability to digest forages and the animal's ability to utilize energy and protein created by bacteria. There are two major types of bacteria; fiber and starch digesters. Energy values are also dependent on the type of diet. For instance, consider soybean hulls (SBH) and corn. SBH have equal or greater energy value compared with corn in backgrounding diets or cow diets (high roughage diets); however in finishing

diets corn has the greater energy value. This is due to the SBH complementing the forage diet (does not promote starch digesting bacteria) rather than creating a negative associative affect. Likewise, if you would add more than about 10% corn to the backgrounding diet, performance could be lost because of the negative associative affect created by having both starch and fiber digesting bugs populate the rumen. In finishing diets containing mainly concentrates, corn does not create a negative associative effect, and corn has a greater energy value than SBH because of its rate of digestion.

Compared to ruminants, the energy usage of certain feedstuffs in monogastric animals is fairly straightforward. If swine cannot digest a certain feedstuff in the small intestine there is little to no energy value of that product. Since there is no or very little fermentation of fibrous feed sources in the gut, grains with high fiber content holds very little value to growing and finishing swine. However, due to the fact that swine cannot naturally cool themselves by sweating, the use of higher energy feedstuffs is much more critical to maximize growth performance. The main factor that affects growth performance in swine is the amount of voluntary feed intake during periods of high environmental temperature. Typically, the starch in corn is the main carbohydrate and energy source in most diets fed to pigs. However, when feed intake decreases due to high heat and humidity fats are added to the diet. The addition of fats have consistently improved growth rate, reduced feed intake, and improved feed efficiency by about 2% for every 1% of fat added to the swine diet. This improvement occurs because the heat given off as the body metabolizes fat is less than that of carbohydrates. Thus, swine are in a much more comfortable environment. Finally, it is important to remember to make a correction to the lysine level of the swine diet when any changes occur with the energy level of the diet.

Finishing Technologies



by Dr. Jeremy Martin, Ruminant Nutritionist

As corn prices continue to escalate and cattle feeders feel the pressure of increasing costs of gain, it is important to remember that technology is available that impacts profitability of finishing cattle. These technologies are often taken for granted, but as times get tougher we need to make use of feed additives, implants, and metabolic modifiers (Optaflexx and Zilmax) when appropriate. Remember, if you are feeding all-natural cattle you are probably not allowed to utilize these products, but programs vary widely and some allow the use of ionophores (Bovatec, Rumensin, GainPro) during part of the feeding period.

Ionophores are commonly used feed additives and probably the most common of the finishing technologies mentioned above. Ionophores select for more efficient rumen microorganisms and altering protein turnover in the rumen. The net effect is improved feed efficiency with less risk of ruminal acidosis and coccidiosis prevention. Rumensin is the primary ionophore used in the finishing phase, but both Rumensin and Bovatec are effective at improving conversions of cattle on grass. Although efficacy of ionophores varies with each situation, we expect 5-10% improvement in feed efficiency. Gainpro is another feed additive that has some similarities to ionophores. Gainpro works well in cattle on high-forage diets by promoting forage digestibility and intake. Because these

additives are federally regulated, and the approved feeding levels vary with situation, please contact us for a recommendation specific to your situation.

Growth-promoting implants have been used for a number of years, but current implant options are probably more cost-effective than ever. Lifetime implant strategies should be tailored to the biological type of cattle and market conditions. When used correctly, implants can increase hot carcass weight, improve feed efficiency, and have minimal effects on Quality grade. Return on investment with implants is very good and usually yields somewhere between \$5 and \$10 returned for each \$1 invested.

When identifying the most appropriate lifetime implant strategy for cattle, we recommend starting with a weak implant and building increasing implant potency each time cattle are re-implanted. The starting point depends on when you receive the cattle and how many implants you administer prior to harvest. Implant strategies for nursing and backgrounding calves differ from strategies for finishing cattle. Most of the time, a weak estrogenic implant is appropriate for nursing calves, and a strong estrogenic implant for backgrounding cattle. The most potent implants are strong estrogen/trenbelone acetate combination implants, and should generally be used for the final 100 days of the finishing period. Prior to the terminal implant, many feedlots use an intermediate strength combination implant for 90-100 days. This is a fairly aggressive strategy, and may reduce Quality grade slightly. Another option would be to use two intermediate strength combination implants in succession to achieve a higher percentage of Choice. In today's market, with a narrow Choice-Select spread, we recommend a strong combination terminal implant preceded by an intermediate combination implant. It is important to project the harvest date of a pen to insure that you do not "run out" of implant. Ideally, the terminal implant would be administered 100 days prior to harvest, but 120 days is acceptable. Another option that looks promising for those who do not wish to re-implant is the new Revalor XS 200 day combination implant. The XS is a strong combination implant approved for finishing steers, and utilizes a combination of uncoated and polymer-coated pellets to control hormone release for 200 days.

Optaflexx and Zilmax are β -adrenergic agonists that act as repartitioning agents to shift nutrients away from fat deposition towards lean muscle growth late in the finishing period. Although their modes of action and dosage are different, the net effect of both is improving gain and feed efficiency at the end of the finishing phase. Based on current research, we recommend feeding 200 mg/hd/day Optaflexx for 28-35 days prior to harvest or 90 mg/head/day Zilmax for 20-40 days prior to harvest. Both products are effective in steers and heifers. In order to get maximum effectiveness with these additives, the harvest date must be projected accurately. With Optaflexx, 85-90% of the return is achieved within 28 days, but performance is maintained through 42 days. Therefore, targeting a 35 day feeding period results in a 7 day allowance for selling early or late. Zilmax must be withdrawn from feed 3 days prior to slaughter, but recent research indicates withdrawal for more than 10 days diminishes its effectiveness.

As an industry, we are fortunate to have technology available that is research-proven to improve profitability of feedlot cattle. As you evaluate these options, we invite you to give us a call and let us help you design the program that is both manageable and cost-effective for your operation.