



Great Plains Livestock Consulting, Inc.

500 S. 4th St.
P.O. Box 377
Eagle, NE 68347

The Great Plains News Feed



Great Plains Livestock Consulting, Inc.
"Turning Science into Money"

Phone: (402) 781-9378

Fax: (402) 781-9379

www.GPLC-Inc.com

January /February
2010

The Latest Across the Plains



Happy New Year!

We hope that everyone had a safe and wonderful Christmas despite the weather. As 2009 winds down and 2010 takes off, we hope you have a prosperous new year. Remember Great Plains Livestock Consulting, Inc. is here to help you start your new year off right. Contact us with any livestock nutritional needs you may have!

Come Take a Listen

Our nutritionists will be speaking at the following events:

- Dr. Dan Larson, (MN Beef Cow/Calf Days)
 - o Feb. 2 - Staples, MN (9:30am - 3:00pm)
 - o Feb. 2 - Bagley, MN (5:30pm - 9:30pm)
 - o Feb. 3 - Lancaster, MN (5:30pm - 9:30pm)
 - o Feb. 4 - Baudette, MN (5:30pm - 9:30pm)
 - o Feb. 5 - Grand Rapids, MN (5:30pm - 9:30pm)
 - o Feb. 8 - Mora, MN (5:30pm - 9:30pm)
 - o Feb. 9 - Glenwood, MN (9:30am - 3:00pm)
 - o Feb. 10 - Pipestone, MN (9:30 am - 3:00pm)
 - o Feb. 11 - Rochester, MN (5:30pm - 9:30pm)
- o Feb. 12 - New Prague, MN (9:30am - 3:00pm)
- o Feb. 16 - Shannon, IL (9:30am - 12:00pm)
(Dan Larson, Ph.D. and Ki Fanning, Ph.D. Eastland Feeds Winter Meeting)
- Dr. Jeremy Martin
 - o Jan. 23 - The 20th Annual Sandhills Cattle Tour in the Rose, Nebraska area (8:30am - 4:00pm)
 - o Feb. 5 - Panel Discussion at Gudmundsen Sandhills Laboratory's Whitman, Nebraska

For Your Benefit

Great Plains Livestock Consulting, Inc. is still offering its feedlot monitoring program. This service will be offered **FREE** until September 2010. As the old adage goes "you can't manage what you don't measure" and our staff has made a collaborative effort to design a program to help producers measure the performance of their feedlot cattle. For more information contact our office or your nutritionist. With sales coming up keep in mind our free classifieds on our website, whether you are planning a sale or you're looking to buy take a look!

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

Dan Larson, Ph.D.

Ruminant Nutritionist
Cell: (402) 560-4052
Dan.Larson@GPLC-Inc.com

Bill Chapman, M.S., PAS

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

Wayne Schiefelbein, M.S.

Swine Nutritionist
Cell: (515) 238-1271
waynexe@yahoo.com

Stan Smith

Office Manager
Stan.Smith@GPLC-Inc.com

Brent Nelms

Office/Marketing
Brent.Nelms@GPLC-Inc.com

Calendar of Events



- **Jan. 8-9** 40th Annual SD Pork Congress, Sioux Falls, SD.
- **Jan. 21-22** 5th Annual I-29 Dairy Conference, Sioux Falls, SD.
- **Jan. 27-28** Midwest Ag Expo, Gifford, IL.
- **Jan. 27-30** Cattle Industry Annual Convention & Tradeshow, San Antonio, TX.
- **Jan. 29-30** Kansas Cattlemen's Association Annual Convention & Tradeshow, Salina, KS.
- **Feb. 3-4** Illinois Pork Expo, Peoria, IL.
- **Feb. 7-9** 103rd Annual Minnesota Grain & Feed Association Convention and Trade Show, Mankato, MN.
- **Feb. 14-21** 33rd Annual Beef Expo, Des Moines, IA.
- **Feb. 16-21** Nebraska Cattlemen's Classic, Kearney, NE.
- **Feb. 25-28** Illinois Beef Expo, Springfield, IL.
- **Feb. 27-28** Indiana Cattle and Forage Symposium, Indianapolis, IN.



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Timely Reminders

General

- ✓ Analyze Winter Feed Supplies.

Beef

- ✓ Switch cowherd to Calving & Breeding Mineral 60 days prior to calving.
- ✓ Remember protein and energy requirements increase during the last third of gestation.
- ✓ Twine or net wrap have no nutritional value.
- ✓ Bulls and pregnant cows need 6-8 gal. water/day and lactating cows need 11-14 gal. water/day (liquid form works best).
- ✓ Knock frozen points off pen surface.
- ✓ Keep cattle bedded in harsh conditions.

Swine

- ✓ Producers should plan to test DDGS every quarter to check for variability.
- ✓ Lock in some feed ingredients on a long term basis to minimize volatility.
- ✓ Vaccinate for circo virus.

Unused Feed

- ✓ No matter who says what, don't believe it if it don't make sense.

finishing cull cows.

If the diet and feeding strategy are well designed, cull cows can be expected to gain between 3.0 and 6.0 lb/day. However, mature cows also require greater feed inputs than a typical finishing calf. Mature cull cow intake may approach 3.0% of her body weight. Feed efficiency may be as poor as 10:1. Compensatory gain is a major driver of cull cow gain and efficiency. Thus, cows fed for longer periods of time, perhaps on a lower energy diet, will rapidly become less efficient, and less profitable. However, compensatory gain is a function of fatness. Thinner cows will produce a greater average daily gain, but also require more time in the lot. It is realistic to assume cows will require at least 2 months on feed to gain 1 body condition score, or about 100-125 lbs. An appropriate implant strategy is also essential to profitable cull cow feeding. Consult your nutritionist to design a feeding and implant strategy to best fit your marketing goals.

The final portion of cull cow marketing is to produce a carcass that is acceptable. Most mature cows will fall in to one of four categories: Commercial, Utility, Cutter, or Canner. Younger cows may often achieve the Commercial grade, with older cows falling into the latter three categories. Feeding cows for at least 60 days may improve quality grade. Historical data shows improving carcass quality from Cutter to Utility during the March to June marketing window may improve market price by as much as 12%. Moreover, fat color is important in cull cow marketing. Feeding a cull cow a high grain finishing diet for at least 60 days will help change fat color from yellow to a more white color, which is more acceptable at the packer level.

Regardless of the reason, every farm or ranch will have cows that need to be culled. Culling cows is an excellent tool for genetic improvement. More importantly, if managed correctly, it can be a significant profit center. Contact your GPLC nutritionist to design a cull cow management plan that will help turn a liability into an asset.

Feeding Light Test Weight Grain

By Dr. Jeremy Martin, Ruminant Nutritionist

I'm sure we are all glad that harvest is (mostly) complete. It was certainly not achieved without challenge. Unfortunately, one of the results of a late planting season and early frost is light test weight grain. Many areas of the Midwest are reporting light test weight corn and/or milo. The severe price docks received for this grain at the elevator make it an attractive option for feeding cattle.

Light test weight grain is higher in crude protein, fiber, and mineral content compared to normal test weight grain. Increases in concentration of these fractions come at the expense of reduced starch content. Despite these compositional differences, light test weight corn or milo is comparable in feeding value (more details below) to normal grain in many situations. One challenge that must be overcome, however, is processing. Reduced kernel size makes processing light grain a challenge. Care must be taken to adjust rolls or flakers. Maintaining feeding value of light grain is dependent on

processing the grain well.

Fortunately, there is good, controlled research comparing rations containing light test weight versus normal weight corn and milo in growing and finishing cattle. Recent research conducted by Dr. Dan Larson (Dan.Larson@GPLC-Inc.com) and colleagues at North Dakota State University compared grower diets containing normal dry-rolled corn with diets where 1/3, 2/3, or all corn was replaced with 39.1 lb/bu corn. Dry matter intake and average daily gain were similar across all diets, and feed efficiency actually improved as the level of light test weight corn increased. This may be due to the increased fiber content of light test weight grain, which would be somewhat similar in nature to the fiber found in corn processed by-products. Therefore, it is not surprising that feed efficiency improved in high-roughage grower diets containing light test weight corn.

Finishing research conducted by the same group compared feeding normal corn, 47 lb/bu corn, or 39 lb/bu corn in finishing diets containing 81% dry rolled corn. Finished weight and average daily gain were similar for corn of all test weights. Dry matter intake in diets containing light corn was increased in this trial, but other research shows similar intakes independent of test weight. Unlike the growing trial, feed efficiency was reduced in finishing diets containing light test weight corn. Carcass quality grade does not appear to be dependent on test weight, but it appears that feeding corn with test weight below 47 lb/bu may reduce ribeye size and increase yield grade.

Similar growing research conducted with milo in limit-fed high concentrate diets or full-fed high roughage diets by Kansas State University determined light test weight milo had similar feeding value to normal grain. Finishing research determined that gain was unaffected by bushel weight, feed efficiency was similar for all test weights if the milo was dry-rolled, but was better for normal test weight milo if it was steam flaked. Again, it is important in dry rolled milo diets that grain be processed well. Light test weight milo is characterized by small berries that can be difficult to process. Be certain your rolls are adjusted to prevent whole berries from passing through the roller mill. Digestibility of whole milo, particularly in high concentrate diets is poor.

It is unfortunate that the fall harvest was a challenge for many, but the good news for cattle feeders is if you have homegrown light test weight grain, there is essentially no disadvantage in terms of feeding value. If you are in a position to purchase light test weight grain, you may be able to reduce cost of gain by buying the grain at a discount. Available research indicates that with either corn or milo, light test weight grain may be used to replace all of the grain in a ration. Performance and feed efficiency in growing rations are unlikely to be affected. In finishing rations, similar performance can be expected, but feed efficiency may be reduced slightly. In either case, grain should be tested to allow us to account for increased protein and fiber components.

Cull Cow Feeding and Management



By Dr. Dan Larson, Ruminant Nutritionist

When it comes right down to it, the most profitable cow is the pregnant cow. But, even under ideal conditions, 4-7% of cows come back open every year. Most likely, the open cow is going to hit the road; become a cull cow. Age, temperament, injury, and low productivity can also cause cows to fall out of the herd. Although a cull cow does represent a loss versus producing a calf, she is a profit center and needs to be treated as such. Between 15 and 25% of beef enterprise income may come from cull cow marketing. Thus, it's essential to manage and market cull cows to maximize returns. However, cull cows are often marketed shortly after weaning, or preg checking, which is coincidentally the lowest price in the yearly cycle. Cull cow prices are typically highest going into calving season. So, the challenge is marketing cull cows during the most optimum time at the best weight and carcass composition.

Perhaps the most important aspect of cull management is selecting healthy, injury cows for feeding. It's also important to ensure the cow is not pregnant. Pregnancy will increase maintenance energy requirements and reduce feed efficiency and gain. Injured cows will also reduce profitability by impacting gain and efficiency. More importantly, injured or downer cows will not be accepted by the sales barn or packing plant. A fair amount of research has been conducted to determine the most advantageous strategy for feeding cull cows. Compared to feeding calves or yearlings, cull cows will require more bunk space, between 18-24 inches per head. During moderate to cool weather, mature cows will also require between 6-8 gallons of water per day. Perhaps the most important aspect of cull cow feeding is to transition to a high-energy finishing diet as quickly as possible. A typical feedlot diet, containing byproducts and minimal roughage, is appropriate for