



Great Plains Livestock Consulting, Inc.

500 S. 4th St.

P.O. Box 377

Eagle, NE 68347

The Great Plains News Feed

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

Zeb Prawl, M.S.

Ruminant Nutritionist

Cell: (620) 243-3846

Zeb.Prawl@GPLC-Inc.com

Luke Miller, M.S.

Ruminant Nutritionist

Cell: (660) 299-0798

Luke.Miller@GPLC-Inc.com

Brent Nelms

Feedlot Tracking

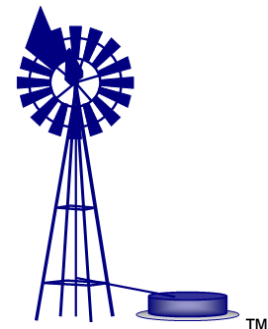
Brent.Nelms@GPLC-Inc.com

Bill Chapman, M.S., PAS

Dairy Nutritionist

Cell: (402) 416-3277

bill@cmpdairy.com



**Great Plains Livestock
Consulting, Inc.**

“Turning Science into Money”

Phone: (402) 781-9378

Fax: (402) 781-9379

www.GPLC-Inc.com

**November/December
2011**

The Latest Across the Plains

Save Money \$\$\$ Test your Feeds

Feed is more expensive than ever and does not look like it will change for the better in the near future. As a result, margins are slim in all sectors of the beef industry. These are two very good reasons to have your feeds tested for their nutrient content and have us formulate a set of diets specific to your operation based on those analyses. By testing the feeds we can make sure you are not over or under supplementing your livestock, therefore maximizing your operation's performance. 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. As always, we want to thank everyone for their business and friendship; and wish everyone a Merry Christmas and Happy New Year.

Have you thought about Zilmax?

Take a look at some closeout yields from some of our clients who have tried it! Research shows when used correctly Zilmax has the ability to increase yields.

Animal	HCW, lb	Unit Increase in Dress %
Steers	+ 30	+1.2-1.5
Holsteins	+25	+1.0-1.2
Heifers	+24	+1.0-1.3
Cull Cows	+34	+1.3-1.6

*To see an economical benefit cattle should be sold in the Meat or Grid

*Must be fed for **at least 20 days** with a **3-10 day withdrawal** period

***Can** reduce choice cattle

*Some packers *will not accept* cattle fed Zilmax

*Zilmax, ROI
Steer

- 31 lbs @ \$195.00/ CWT = \$60.45
 - o Zilmax Cost = \$35.00
 - Zilmax ROI = \$25.45
 - 1.7:1 in 20 days

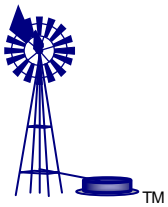
Location	Harvest Date	Yield (%)
Greater Omaha	7/1/11	64.39
Greater Omaha	7/16/11	65.52
Greater Omaha	8/15/11	67.00
Greater Omaha	8/17/11	65.75
Greater Omaha	9/14/11	66.11
Greater Omaha	9/16/11	65.53
Greater Omaha	11/4/11	66.03
Tyson	6/16/11	61.97
Tyson	10/7/11	67.01
Tyson	10/28/11	68.31
Swift	5/6/11	64.88
Swift	5/7/11	64.37
Overall Average		65.57

ATTENTION SEEDSTOCK PRODUCERS if you would like your sale date printed in the GPLC newsletter Calendar of Events, please contact Tiffany Wright at Tiffany.Wright@GPLC-Inc.com or (402) 781-9378 so it can be included.

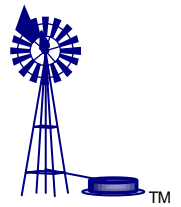
Calendar of Events



- **Nov. 5-18** The 38th North American International Livestock Exposition, Louisville, KY.
- **Nov. 11** Veterans Day
- **Nov. 18-19** Kansas Cattlemen Association Annual Convention & Trade Show, Hutchinson, KS.
- **Nov. 19-21** Nebraska Youth Beef Symposium, UNL, Lincoln, NE.
- **Nov. 22** Illinois Commodity Conference, Bloomington, IL.
- **Nov. 29** Range Beef Cow Symposium, Mitchell, NE.
- **Nov. 24** Thanksgiving
- **Dec. 6-8** South Dakota Cattlemen Association Annual Convention, Pierre, SD.
- **Dec. 7-9** Nebraska Cattlemen Convention & Trade Show, Kearney, NE.
- **Dec. 10** Winter Classic, Lansing, MI.
- **Dec. 12-14** Iowa Cattlemen Association Annual Convention, Altoona, IA.
- **Dec. 13-15** WSGA Winter Roundup, Casper, WY.
- **Dec. 16-17** Missouri Cattlemen Association Annual Convention & Trade Show, Columbia, MO.
- **Dec. 17** North Dakota Stockman's Foundation Ball Ramkota, Bismarck, ND.
- **Dec. 25** Christmas Day



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Timely Reminders



General

- ✓ Contact us about feeding light weight corn. It still has good feed value or can be put up as high moisture corn, depending on moisture content, and priced better; talk with neighbors to see if they have any.
- ✓ Analyze Winter Feed Supplies.

Beef

- ✓ Wean Calves –contact us about setting up backgrounding diets.
- ✓ Prepare supplies and pen conditions for weaning calves.
- ✓ Keep pens scraped and get manure hauled.
- ✓ Fall is a great time to deworm cows with a white dewormer.

Equine

- ✓ Keep an eye on hay/forage quality.

Unused Feed

- ✓ “In times of rapid change, experience could be your worst enemy.” – J. Paul Getty

Mineral Supplementation for the Gestating Cow



By Luke Miller, Ruminant Nutritionist

Cow vitamin and mineral supplementation is always a concern as we get into the calving season and begin thinking about getting cows bred back. Getting cows pregnant has one of the largest impacts on a cow/calf producer's bottom line. However, maintaining that pregnancy and having a healthy calf hit the ground at springtime is just as important. Many times we get so busy later in the year with getting feed put up for winter, harvest, and weaning that the cow herd tends to take a back seat. Research has shown that mineral supplementation during gestation can have a large impact on the health and development of the growing fetus.

Mineral supplementation plays a key role in energy utilization. Many different physiological pathways are responsible for taking the energy a cow consumes and allowing her to use this energy for fetal development, growth, heat production, immunity, and various other metabolic processes. Vitamins and minerals are the key elements allowing these pathways to function effectively. Calcium is one of the cheapest ingredients in a mineral supplement and typically is not deficient as long as cows have access to it. Due to the fact that calcium is crucial for smooth muscle function, calving difficulty, retained placentas, and prolapses are usually a few signs of a calcium deficiency. Also, keep in mind that a cow's calcium requirement increases by 22% from mid to late gestation, and by another 40% after calving. Phosphorus works hand-in-hand with calcium for bone and tissue development as well as milk production. Forage tests from Great Plains Livestock Consulting, Inc., as well as an extensive amount of university research, have shown that phosphorus availability in forages in many areas is much higher than we have typically given

them credit for in the past. The increasing cost of phosphorus over the last few years, along with the utilization of by-product feeds, has caused the industry to re-think phosphorus supplementation. Typically, a range mineral containing 3-6% phosphorus is sufficient for a gestating cow not consuming any by-product feeds.

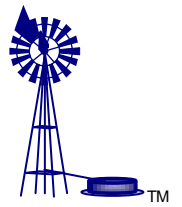
Copper, Zinc, and Selenium are a few trace minerals that we often pay close attention to, and rightly so. These trace minerals play an active role in enzyme activation and function. These enzymes are involved in the metabolism of energy and protein, among other physiological activities constantly occurring at the cellular level. Organic forms of copper and zinc, referred to as chelates, are often recommended to be used in breeder minerals and also when weaning or receiving high risk cattle in a backgrounding or feedlot situation. Chelated trace minerals have been shown to be many times more available than inorganic sources, but are also much more expensive. Using organic trace minerals in conjunction with inorganic sources can be a cost effective method of ensuring cattle are able to utilize the minerals they are consuming, especially when antagonists such as sulfur are present. Mid to late gestating cows probably do not require the added expense of using an organic trace mineral supplement in most cases, but it is definitely something to keep in mind as you get closer to the breeding season. Because there is an extremely complex web of interactions between individual minerals, it is crucial to feed a balanced mineral supplement. For example, copper and zinc are absorbed at the same location in the small intestine; over-supplementation of one can cause an antagonistic effect of the other resulting in a deficiency.

Vitamins A and E are two of the more costly ingredients involved in a mineral supplementation program. Vitamin A supplementation has been shown to have a large impact on fetal brain development during mid-gestation. Weak, unthrifty, and blind calves are often a sign of Vitamin A deficiency during gestation. Vitamin E plays a role in membrane development and disease resistance. It works along with Selenium as an antioxidant. White muscle disease in young calves is often a sign of a selenium and/or Vitamin E deficiency. Other symptoms of Vitamin E deficiency are weak calves and impaired suckling ability caused by poor development of tongue muscles. The interactions between the courser ingredients in a mineral supplement, such as calcium and trace minerals, can have a negative interaction with the more delicate vitamins. Because vitamins are expensive and play such an important role, we recommend paying special attention to the manufacturing date of your range mineral. Often this can be found on the tag, although sometimes it may be in code. Many of the manufacturers we work with make mineral on an “as needed” basis, which keeps these products fresh and the ingredients more available to the animal. Feeding a supplement that is six months old or older may not provide as much benefit as one only a month or two old or less.

A calf's immune system typically starts to develop at 150 days of gestation. Utilizing a balanced mineral supplementation now not only helps to ensure that a healthy calf hits the ground in the spring, but that he is also less likely to run into health problems later in life. However, don't forget that energy and protein work hand in hand with mineral supplementation, and one does little good without the other so let us test your forages and put diets together for your herd.



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Footrot



By Dr. Jeremy Martin, Ruminant Nutritionist

Footrot is a common problem in both feedlot and grazing cattle, and is not only annoying, but costly. The bacteria *Fusobacterium necrophorum* or *Bacteroides melaninogenicus* are the causative agents of footrot. Both bacteria are common in the environment and *F. necrophorum* is present in the rumen and feces of normal cattle. Footrot outbreaks are variable, may be seasonal, and are more likely when injury to the pad occurs. Analysis of data from cattle treated for footrot have revealed serious production and economic costs associated with the condition.

Griffin et al. (1993) collected and analyzed pull and treatment data from five feedlots and determined that lameness was responsible for 16% of feedlot treatments. The authors determined a case of footrot resulted in nearly a \$60 loss including treatment, loss of performance, and overhead. In other words, footrot contributed nearly \$10 per head to the average cost of the entire population of cattle in the feedlots. Brazle (1994) analyzed performance of yearling steers on native grass pasture and compared gain of those treated for footrot with untreated cattle. Over a 3-year period, cattle treated for footrot gained 0.44 lb per day less than untreated cattle. In today's yearling market, that is a \$60 loss, conservatively.

The most comprehensive piece of research addressing the effects of footrot was conducted by Tibbetts et al. (2006). The authors analyzed performance of 7,100 steers fed for 200 days or more at the Meat Animal Research Center in Clay Center, NE. Footrot cases were classified as occurring during the starting (1-60 days on feed), growing (61-120 days on feed), and finishing (121 or more days on feed) periods. Over the course of the study, 6.5% of the cattle were treated for footrot. Steers that were affected by footrot during the starting phase did not experience a reduction in average daily gain. However, steers treated for footrot during the growing phase gained 0.07 lb per head per day less than untreated cattle. But most importantly, steers treated for footrot during the finishing phase averaged 0.11 lb per day less gain than untreated cattle. The reduction in gain is averaged over the entire feeding period – resulting in cattle treated during the finishing phase being fed an average of 14 days longer to reach their endpoint. Assuming a treatment cost of \$25/hd, and current market prices for feed, feeder cattle, and fed cattle, the resulting loss on cattle treated for footrot amounts to more than \$100 per head. So again, the average cost of footrot over the entire population is nearly \$10/head.

While it is unrealistic to think you can prevent footrot from ever happening, it is entirely possible to minimize its occurrence. This time of year can be difficult because moist pen surfaces that freeze at night and thaw during the day are hard to manage. Make every effort to keep frozen pens smooth and prevent sharp surfaces from causing injury to the hoof. In particular, aprons and the area immediately behind aprons should be graded as needed to keep them smooth. Alleyways and processing facilities should be maintained so cattle that are moved and/or processed do not

experience damage to the hooves. Do not allow standing water to accumulate in feedlot pens, which softens the hoof and increases the chance of footrot developing.

Recently, researchers and veterinarians have noted an increase in cases of hairy heel warts in feedlot cattle. These warts may appear to be a case of footrot at first glance, but whereas footrot begins at the bottom of the foot and swelling works its way up, hairy heel warts begin in the soft tissue just above the back of the hoof and swelling works its way down into the hoof. Typically, hairy heel warts appear as red, irritated areas surrounded by long hairs. Warts are infectious, and if treated as footrot, will not heal. Producers should be aware of hairy heel warts so they can be treated properly and not mistaken for footrot.

From a nutritionist's standpoint, the best tools to prevent footrot are organic iodine and organic zinc supplements. Both are readily available and relatively inexpensive. The amount of iodine fed is FDA regulated, and thus we recommend to feed the maximum approved dose as a preventative measure. Organic zinc is available in several forms, the most-researched being Zinc Methionine, from Zinpro Corporation. Supplementing Zinc Methionine as a footrot preventative costs approximately \$0.02 per head daily, and research indicates a positive impact on performance with 30% to 57% reduction in footrot cases. As compared to the time, labor, frustration, and treatment costs these solutions are simple, easy, and inexpensive. Give us a call if you have any questions about footrot and would like to take more preventative measures in the future.



“Turning Science into Money”