



**Great Plains Livestock Consulting, Inc.**

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# The Great Plains News Feed



**Great Plains Livestock Consulting, Inc.**  
*“Turning Science into Money”*

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2010

## The Latest Across the Plains



### **Cattlemen's College**

We would like to thank everyone who attended the 2<sup>nd</sup> Annual Cattlemen's College conference. The conference covered important topics in the cattle industry such as implanting, feedlot monitoring, medications, mineral nutrition, probiotics, vaccination protocols, and new by-product feeding research. If there are any questions you have from the conference that were not answered, please feel free to contact any of our nutritionists. They will be glad to assist you in any way they can. We were pleased that nearly 200 guests made it to the conferences from a nine state region. If you didn't make it out this year, there is always next year!

### **Feedlot Monitoring**

Many have taken advantage of our feedlot monitoring program, Beef Profitrac, and have seen first-hand what a useful tool this can be for managing feedlot inputs. This program has taken off and with time will be essential to feedlots across the United States. For those of you involved in the program, we will officially start charging for the service October 1. Those new to the program will receive their first six months free. If you have not tried the program yet, we highly suggest you do, since you can't manage what you don't measure. If you would like more information contact your nutritionist or Brent Nelms.

### **School is in Session**

Fair season is finishing up and fall is creeping in, with this summer's heat it will be a relief. Many are sending kids back to school, getting ready to wean calves, and preparing feedlots that will be filling quickly. We know everyone will be busy, but keep Great Plains Livestock Consulting, Inc. in mind for any weaning or feedlot nutrition needs. We wish everyone the best of luck this fall.

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## Calendar of Events



- **Sep. 7** IPPA Regulatory Update Conference, Ames, IA.
- **Sep. 8** Mid-Plains Beef Practicum University of Nebraska, Virginia, NE.
- **Sep. 12-18** NCBA Fall Legislative Conference, Washington, D.C.
- **Sep. 14-16** Husker Harvest Days, Grand Island, NE.
- **Sep. 15** Midwest Pork Conference, Danville, IN.
- **Sep. 23-26** NDSA Convention and Trade Show, Minot, ND.
- **Sep. 28-Oct. 2** World Dairy Expo, Alliant Energy Center Madison, WI.
- **Oct. 8-9** 2010 Nebraska Sheep and Goat Conference, Clay Center, NE.
- **Oct. 23** Independent Cattlemen of Nebraska 5<sup>th</sup> Annual Convention, North Platte, NE.
- **Oct. 31-Nov. 3** Packer Expo International, Chicago, IL.



# The Great Plains News Feed



## Timely Reminders

### General

- ✓ Get commodities and byproducts booked and contracted.
- ✓ Have us test hay and silage (silage greater than 4 weeks after harvest).

### Beef

- ✓ Prepare supplies and pens for weaning calves.

### Swine

- ✓ Check ventilation and heater settings for winter months.

### Unused Feed

- ✓ The good Lord didn't create anything without a purpose- but mosquitoes and gnats come close.

### Mineral composition of wheat forage in comparison to calf and cow requirements.

	Ca	P	Mg	K
<b>Comp., % of DM</b>	<b>0.35</b>	<b>0.25-0.4</b>	<b>0.15</b>	<b>3.0-5.0</b>
<b>#1-Req't, %</b>	<b>0.56</b>	<b>0.26</b>	<b>0.1</b>	<b>0.65</b>
<b>#2-Req't, %</b>	<b>0.26</b>	<b>0.21</b>	<b>0.1</b>	<b>0.65</b>
<b>#3-Req't, %</b>	<b>0.36</b>	<b>0.26</b>	<b>0.1</b>	<b>0.65</b>

Source: 1984 Beef Cattle NRC

As seen in the table, the growing steer calf (#1) is more likely to be deficient in calcium than any other macro mineral presented. The same is also true for a nursing cow (#3). Hence, the mineral of most importance in these grazing scenarios should be calcium. Aside from meeting the requirements for maintenance and growth in cattle, calcium has also been theorized to have another significant effect in cattle grazing lush pastures.

During certain times of the year, bloat becomes a serious issue to deal with on lush pastures. While there are a few approved and/or accepted methods for controlling bloat in these situations, calcium is seldom considered. However, as suggested by Dr. Gerald Horn and others from Oklahoma State University, there may be a relationship between ruminal motility (the ability of stocker cattle to eructate ruminal gases) and the calcium status of the cattle (Wheatland Stocker Conference proceedings, 2001). Calcium is involved in muscle contraction and expansion, and since the rumen is a big muscle that is constantly contracting and expanding to mix the contents inside, Dr. Horn suggests that a subclinical or mild deficiency of calcium could compromise this activity and not push gas out of the rumen to be expelled from the animal. In turn, cattle might bloat up because of this. While this won't prevent bloat every time, it does make a good case for feeding a balanced, complete mineral supplement for cattle grazing all types of small grain and other lush forages; even fescue. The use of ionophores in these situations can also be advantageous and is easy to do with a mineral supplement. With the fall grazing season fast approaching, now is the time to contact Great Plains Livestock Consulting so our nutritionists can help you design a mineral program for your cattle herd that will give you the best chance of a successful grazing season.

likely to get sick. If the calves have the first round of shots and are eating creep feed, they are less likely to have problems at weaning.

To prepare for new arrivals, make sure the manure is cleaned out of the pens, the waterers are clean (clean weekly), fences are fixed and cables are tight, sharp and toxic objects are removed from the pen, and bunks are clean and straightened. Newly weaned or received calves should have 24 inches of bunk space and 2 to 4 inches of waterer space. If the calves have been creep fed, pull the creep feeder into the pen for a few days and also feed some of the creep feed over long stem hay in the bunk. The goal is to wean the calves off the cow and have feed they are used to eating available. Put extra waterers and feed or lick tubs by fences to get calves walking the fence interested in drinking water and eating some feed.

After three to five days, begin introducing the starter ration. Calculate how much the calves should consume daily and feed at about half that level, quickly working them up to the target intake. An intake guide can be found in the front of each *Great Plains Livestock Consulting, Inc.* ration book. The starter should contain palatable ingredients. Silages are an acquired taste and should be introduced slowly. Electrolytes, a probiotic, organic trace minerals, high levels of antioxidants, and AS700 or CTC are beneficial for stressed cattle. I prefer CTC at 1 gram per hundred weight (i.e. 500 pound calf should get 5 gm of CTC per day) for five days because of its effectiveness and low cost. Since the CTC is being introduced on day 3 or 4 and fed for 5 days, the calves should be eating the ration well and will get the correct amount of the drug into their system. After 5 days of CTC, the CTC is to be removed from the diet for 1 to 5 days and then put back into the diet for an additional 5 days. This process can be repeated as many cycles as needed, at least two for low risk calves and five cycles for high risk calves.

Once the calves are eating the ration and settled down, give them the second round of shots including an implant. The implant should be an intermediate implant for 500 to 900 pounds or a terminal implant for cattle over 900 pounds (see our March/April 2010 news letter or contact us directly).

Changing one thing at a time is the best plan. Realistically, that is not always possible. However, the closer you follow a weaning or receiving program that makes slow and gradual changes, the less problems you will have and the heavier the calves you will produce. If your goal is to sell the calves, keep in mind that feedlots do pay a premium for weaned calves. Health problems cost feedlots a lot of time and money. In fact, many feedlot owners are aware of the research from Oklahoma State University showing a calf treated once is at best going to break even. A calf treated twice is nearly impossible to make money on. Healthy calves make money. We can help get them off to a good start so give us a call.

## Grazing Small Grain Pastures Requires Mineral Supplementation



By Zeb Prawl, Ruminant Nutritionist

With cooler temperatures finally arriving in the Great Plains area, several producers are starting to think about wheat and other small grain pastures. While some areas of the country are seeing less small grain pasture acres grazed by stocker cattle, there still is a tremendous opportunity to put weight on calves in an economical manner by grazing these pastures. While protein and energy needs are easily met with lush small grain and cool-season pastures for calves, we still need to pay attention to the mineral nutrition of these animals.

The biggest objection to grazing small grain pastures is the high value of grain. While farmers try to do everything to maximize the yield from their fields, most overlook the chance for extra profit by grazing. Research has shown that grazing wheat fields with stocker calves typically reduces grain yields by 3-10 bushels/acre, provided that cattle are taken off at the appropriate time. In the current wheat market, this could equal \$20 - \$70/acre in lost yield. In a more average market, that loss will be \$15 - \$40/acre. However, the cash gained by grazing can be as much as \$80/acre for just a 90 day grazing period. If conditions are right, that grazing period can easily be stretched out another 30 days, adding another \$26 to your pocket.

When one considers grazing wheat and other lush forage, the first mineral that comes to the mind of most producers in terms of immediate need is magnesium. This was illustrated in a survey conducted in the southwest in the early 2000's. Producers were asked which mineral was the most important in supplementing stocker cattle and 84% replied with magnesium. When asked the same question for cows, 89% said magnesium. However, a shortage of magnesium in these pastures is very rare. Rather, it is an abundance of available nitrogen (protein) and potassium in the forage that actually lowers the availability of the animal to absorb the magnesium that is in the forage. In fact, the incidence of grass tetany occurring in stocker cattle due to magnesium deficiency is quite low. While it can be more of a problem for cows, its prevalence is still few and far between.

For example, the macro mineral composition of wheat pasture forage is given in the following table, relative to requirements of a 1) 400 lb steer calf gaining 2 lb/day, 2) a 1200 lb cow in the last 3<sup>rd</sup> of gestation and 3) a 1200 lb cow 3-4 months postpartum.

## Weaning and Receiving



By Dr. Ki Fanning, Ruminant Nutritionist

It is hard to believe the fair is over, kids are in school, and football season is here. We need to start thinking of weaning and/or receiving calves. Difficulties can be reduced by planning ahead to introduce changes to calves gradually. In other words, do not separate the cows and calves, work the calves, move the calves to a different location, and feed them a different ration all at the same time. Rather, spread those changes over a few weeks. The following are some tips on weaning and receiving calves.

Prior to weaning, give the calves a round of vaccinations, dehorn, worm, and then put them back with the cows. This will reduce the stress on the calves and allow them to mount a greater immune response to the vaccinations, reducing the chances of them getting sick. It is beneficial to creep feed the calves for at least 4 weeks prior to weaning. This will increase the energy intake of the calves prior to and during weaning. Calves that know how to eat out of bunk are a lot less



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