



The Great Plains News Feed



Great Plains Livestock Consulting, Inc.

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The Latest across the Plains



Holiday Season

Another year is winding down as families make plans for the busy holiday season all while cattle fill pens and the end of corn harvest comes in sight. We wish everyone the best this holiday season. Amidst all the confusion and stress this year has brought, it is important to take time and reflect on what is most important in life and everything we are thankful for. 2008 was Great Plains Livestock Consulting, Inc.'s celebration of ten years of commitment to customer service. We thank all who have made GPLC a success and appreciate all the support and business from the finest people in agriculture. We look forward to continuing our commitment in the years to come.



New Website

Some may have noticed that our website has changed. If you have not then we invite you to view our new website. We have changed our web hosting providers to structure a website better suited to our clients' needs. The process has taken some time to get things changed. We thank you for your understanding as we make this transition. Some previous features are not present at this time, but will become available in the near future. If you have suggestions or comments regarding the website then feel free to contact Brent Nelms in our office.

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"Turning Science into Money"

Calendar of Events



- **Nov. 24** 35 Annual Farm Income Tax School, Durant, IA (ISU Extension)
- **Nov. 24** Beef Marketing Seminar, Stuart, IA (ISU Extension)
- **Nov. 27** Thanksgiving
- **Dec. 2-3** Robert Taylor Memorial Beef Symposium, Fort Collins, CO
- **Dec 5-6** Missouri Livestock Symposium, Kirksville, MO
- **Dec. 8** Grazing Conference & Exhibitor Fair, Freeport, Illinois
- **Dec. 10 12** Nebraska Cattlemen's Annual Convention, Kearney, NE
- **Dec. 11-12** National Pork Board Pre & Post Harvest Meeting, Des Moines, IA
- **Dec. 12-13** Missouri Cattle Industry Conv. & Trade Show, Springfield, MO
- **Dec. 13** Illinois Heifer Development Program Bred Heifer Sale, Greenville Livestock Auction, Greenville, IL
- **Dec. 25** Christmas



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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.

Beef

- ✓ Wean Calves – Calves and feed are cheaper; contact us about setting up backgrounding diets.
- ✓ Prepare supplies and pen conditions for weaning calves.
- ✓ Keep pens scraped and get manure hauled to pastures.

Swine

- ✓ Check ventilation and heater settings for winter months.

Unused Feed

- ✓ Never approach a bull from the front, a horse from the rear, or a fool from any direction.

Dry Matter Intake



by Dr. Ki Fanning, Ruminant Nutritionist and
Dr. Jeremy Martin, Ruminant Nutritionist

Dry matter intake is one of the most misunderstood and undervalued components of animal nutrition. DMI is the amount of feed, excluding moisture that an animal eats on a daily basis (i.e. the amount of feed consumed minus the moisture). DMI is important for a number of reasons. Adequate DMI is necessary to achieve maximum performance. For example, if 8 lb of feed is required to meet a steers maintenance requirement, an additional 8 lb of feed may produce a gain of 2 lb per day (feed:gain 8:1). However, the next 8 lb of DMI (24 lb total DMI) could easily produce an additional 2 lb per day of gain, or a total 24 lb to gain 4 lb per day (feed:gain 6:1). As you can see, DMI is critical because it takes a certain amount of feed each day to meet maintenance requirements, and anything above that is utilized for production. DMI is limited by either physical fill or energy intake. In cattle on forage diets, rumen capacity is the first limiting factor for DMI. In feedlot situations, DMI is typically limited by energy intake and ruminal acid production.

To calculate average DMI, take the pounds of feed fed to a pen of cattle multiplied by the percent dry matter of the ration, and then divide it by the number of head in the pen. This is the average individual DMI. You should then go one step further and divide it by the average body weight of the animals, which gives you the DMI as a percent body weight. Then compare it to the DMI charts we provide with diet formulations to see if the DMI's are above or below average.

There are many factors affecting DMI, including: water intake, NDF (neutral detergent fiber) level of the diet, cattle health, environmental conditions, pen surface conditions, consistency of feeding schedule, diet formulation, genetics, physiological status, management, bunk space, and pen space. To achieve the most DMI, focus on the factors you can control. Among the most important factors are consistency of feeding time, management of water sources, cattle health, and pen conditions.

Focus on developing a consistent routine for feeding cattle and try to feed cattle within 10 minutes of the same time at each

feeding. A consistent feeding schedule will reduce fluctuations in meal numbers and meal sizes resulting in a more consistent ruminal pH and fewer acid spikes. Since acidosis becomes somewhat more likely as DMI increases, management techniques to minimize fluctuations in intake will greatly reduce the possibility of acidosis. Waterers should be cleaned weekly with a small amount of bleach. Water intake and DMI are positively correlated; increases in one will usually increase the other. Healthy cattle feel like eating and sick ones do not; and likewise, cattle that do not eat, get sick. The cattle should have their vaccinations and boosters up-to-date and should not be purchased unless they do. The most important factor in controlling sickness in unweaned calves is getting them to the bunk. Cattle that achieve their target DMI within a few days of entering the feedlot are much less likely to make a trip to the sick pen.

Pen conditions affect cattle performance by influencing both DMI and efficiency of energy utilization. Outside pens should be scraped regularly to avoid situations where pen conditions prevent cattle from wanting to come to the bunk. During cold weather, frozen pens still need to be smoothed to prevent sharp pen surfaces that make it challenging for cattle to approach the bunk. Cattle housed inside should have a dry place to lay down either by regularly adding bedding or removing old bedding and replacing with new. Wet hides and/or mud require more of the DMI to be used for maintenance of the animal, leaving less available for gains. Using our previous example; if the lots are muddy and the cattle are wet hided, a 50% increase in maintenance requirement is possible. If the cattle continue to eat 24 lb DMI, gain would be reduced to 3 lb per day instead of 4, and conversions would move from 6:1 to 8:1. Worse yet, the reality is that their maintenance requirement does go up and they do not eat as much feed. Frozen ground that is hard to walk on will discourage animals from walking to the bunk or water for an extra meal or drink. Cows and newly weaned or limit fed calves should have 24 inches of bunk space feedlot cattle should have 12 inches. By reducing these numbers timid cattle may be too nervous to go to the bunk as they wish resulting in a reduction in DMI. Pen space is important to help ensure a dry place to lie down and to be able to move around freely. In wetter areas 400 ft² is recommended and in very arid areas 200 ft² may be adequate.

DMI in animals on forage diets is also closely related to performance. On forage diets, physical limitations in rumen size tend to limit DMI, so quality of forage largely determines animal performance. As forage matures and fiber content increases, rate of passage through the rumen is reduced, and thus forage intake is reduced. This is why we often insist on testing forages before formulating cow and heifer rations. In cows and bred heifers, physiological status plays an important role in DMI. Late in pregnancy, fetal growth impedes rumen capacity to the point DMI may be below 2% of body weight. On the other hand, cows fed high-quality forage may consume more than 2.5% of body weight during lactation.

Two closing thoughts to keep in mind:

1. Track the cattle's DMI and use it for an early warning system that something is wrong.
2. Be diligent on the management practices that we discuss, the cattle you buy, and the time you spend training employees.

Don't Leave Out the Extra Nutrients with Feed Additives



by Dr. Jason Schneider, Monogastric Nutritionist

In the past year the feed costs of swine producers has more than doubled and the cost to produce the pork that consumers crave it will likely remain high in the future. Combine this with a volatile grain market and it is no wonder that producers are trying to squeeze out every penny they can find. One way to evaluate not only your nutritional program, but also potentially lower feed cost per ton is to determine the extra nutritional components that are available with feed additives.

Typically when feed prices get high producers tend to pull out feed additives in an effort to lower the cost of gain while not diminishing the return on investment (ROI) of their nutritional program. However, this thought may not always be correct. The use of organic acids and organic trace minerals are good examples of some feed additives that are usually pulled out of swine diets when prices are high.

These feed additives are usually added in small amounts and may not be able to play a significant role in decreasing the use of certain ingredients; however, every bit of saving does add up. For instance, organic acids are typically added to the rations of nursery pigs to increase digestibility and to promote gut health. Some of these organic acids are phosphoric acid based diet acidifiers. The phosphoric acid in organic acid is the same phosphoric acid that is used to make Dicalcium phosphates and Monocalcium phosphates. To further illustrate the point, the organic acid would contain approximately 19-20% available phosphorus. Thus, inclusion of some organic acids may replace the equivalent amount of inorganic phosphorus source and change the economics of this certain feed additive. For example, Dicalcium phosphate is currently costing about \$1000/ton and the inclusion rate of organic acids is approximately 4 lb/ton. Therefore, adding 4 lb/ton of an organic acid will lower the cost of Dicalcium phosphate by \$2/ton of complete feed, which makes the organic acid more price competitive. Additionally, some organic trace minerals are bonded to certain amino acids such as Methionine as a way to increase absorption rate into body tissue. When these types of products are "piggybacked" onto other products they greatly increase the competitiveness of their products in an ever increasingly uncompetitive world.



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