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The Great Plains News Feed

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The Latest across the Plains

Happy New Year!

The holiday season is winding down and a new year is upon us. Many are still recovering from the good food we ate and the good food we should not have. Great Plains Livestock Consulting hopes 2007 was great and wishes everyone a blessed and prosperous 2008!

We would like to introduce Dr. Jason Schneider with this installment of the Great Plains News Feed. Many have had the opportunity to meet Dr. Schneider and know he represents the quality and integrity that GPLC insists all its employees demonstrate and convey to its clients.

Dr. Schneider grew up on a farm in Iowa where he developed an interest in the swine industry. Dr. Schneider received his M.S. in monogastric nutrition from Oklahoma State University where he was involved in determining the metabolizable energy supplied by different varieties of corn and determining the effects of enzymes and ractopamine HCL inclusion on carcass quality. At Kansas State University, he received his Ph.D. for conducted research focused on the development and productivity of gestating gilts and sows, amino acid titration studies in nursery pigs weighing between 20 to 50 lbs, studying different feeding schedules and their effect on the welfare of group housed sows, and evaluating the accuracy of different sow gestation feed drops. Dr. Schneider enjoys the diversity, both geographically and on a business scale, of the clientele that he works with at Great Plains Livestock Consulting, Inc. and he enjoys bringing new ideas and technology to producers.

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Check it out…Again!

We continue to update our website with information to further assist our visitors. Check us out at www.GPLC-Inc.com. The GPLC website has a new look and has been improved for our clients and visitors. Visitors can learn how GPLC is "Turning Science into Money" and get to know our staff. Visitors can contact the GPLC staff or stay informed with the latest market quotes. The newest addition is our **"Livestock Sources"** link. This link directs visitors to a list of auction barns, commercial feeders, seed stock producers, cattle buyers, swine sources, and sheep sources that we feel can assist producers.

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Timely Reminders

Beef

- ✓ High quality mineral supplements, including chelated trace minerals, are proven by university research to reduce morbidity and mortality in stressed calves after weaning.
- ✓ Keep cattle bedded in harsh conditions.
- ✓ Test forages for nitrate levels.
- ✓ Maintain a cow BCS of 6.
- ✓ Take winter forage inventory.
- ✓ Knock frozen points off pen surface.

Swine

- ✓ Producers should plan to test DDGS every quarter to check for variability.
- ✓ Be prepared for a downturn in the market (or bottom line) due to high feed cost and low market price (glut of pork).
- ✓ Lock in some feed ingredients on a long term basis to minimize volatility.
- ✓ Vaccinate for circo virus.

Animal Welfare Status in the U.S.

by Dr. Jason Schneider, Monogastric Nutritionist

As a scientist that specializes in swine nutrition and production, I have been questioned many times about animal welfare and its impact on swine production in the U.S. Animal welfare is a persistent issue in many modern day societies and production agriculture in the developed world. This may be particularly caused by the misconception of husbandry practices in the swine industry. Presently, one of the most controversial issues of conventional pig production is the individual housing of gestating sows. This is evident by the recent citizen initiated ballot measures in Arizona and Florida banning gestation crates. Additionally, the decision by Smithfield Foods, Inc. and Maple Leaf Foods to replace sow stalls with group housing has been an influence. However, evaluating how housing affects the welfare of gestating swine is difficult because every system has strengths and weakness with respective consideration to the nutrition program, production system, and management practices of the swine. Therefore, to counteract the growing criticism of production agriculture and in an attempt to establish objective measures by which animal welfare could be measured the British Farm Animal Welfare Council developed the Five Freedoms to give a conceptual guide for designing animal environments. These criteria include the following: 1) freedom from hunger and malnutrition, 2) freedom from thermal or physical distress, 3) freedom from fear, 4) freedom from disease and injury, and 5) freedom to express most normal behaviors. This is a relatively straightforward procedure to strive for improved animal welfare. However, the last freedom is the only one that seems to be controversial. This may be because the fifth freedom: 1) does not demand that specific, undesirable physiological, health, or psychological states are prevented, and 2) does not distinguish the different version of normal or natural behavior associated with individuals thoughts. Thus, the boundaries of this freedom are not fixed and open to interpretation as it requires a general freedom for all kinds of behavior from the animal. For instance, the main argument against a gestation stall is swine are very social animals and stalls prevent the sows from interacting within a social group. However, the performance of natural behavior does not necessarily make a positive contribution to the welfare of farm animals. Recently, a swine welfare report pointed out that behavior such as establishing dominance in a group setting is natural, but decreases the welfare of individual sows and their pen mates by causing severe injury to feet, legs, skin, and vulva areas. Another area of concern for animal welfare is the political pressure some counties have put on these issues without any objective measurements by which to evaluate a production system. A case in point is an article in the Pork magazine in which a well respected animal welfare scientist named Dr. John McGlone evaluated a swine farm in Sweden. In a political move, Sweden has outlawed gestation as well as lactation crates and uses this farm as an example of excellent welfare of their swine population. However, as the article explains further this particular farm has a sow mortality rate of 15% and a prewean piglet mortality of 25%. Furthermore, Dr. McGlone noted sows recently weaned from their piglets and introduced back into the herd had severe cuts and abrasions due to fighting for their social status. A review of the overall herd showed that the injury rate was more than five times that in the United States. Normally, if I were to look at these production settings on any swine producer's operation in North America, I could easily tell there were significant problems in their system. Yet, because Sweden has outlawed crates in general, they believe their animal welfare issues have been solved. Nonetheless, I believe the article gets it right when it further states that "in some nations the perception of welfare has overshadowed objective welfare measure". Without objective measurements the biggest losers in the animal welfare debate will be the animals themselves.

Nutrient Requirements of Beef Cows – Why They Are Important and How They Change Throughout the Year

by Dr. Jeremy Martin, Ruminant Nutritionist

Cost-effective feeding programs begin with a clear understanding of animal nutrient requirements. Pregnancy and lactation are the primary factors that influence beef cow nutrient requirements. Environmental conditions also play a large role, but are more difficult to plan for. The majority of fetal growth occurs during the last 90 days of gestation, causing energy and protein requirements of the cow to increase. During mid-gestation a 49-50% TDN, 8% CP diet is sufficient to maintain cow condition. As calving approaches, those same cows need a diet containing 53-54% TDN and 8.5-9% CP. However, the highest nutrient requirements of the production cycle occur during peak lactation, about 60 days post-calving. A diet containing 60-65% TDN and 10-12% CP, depending on milk production, is necessary to maintain body condition of lactating cows. This illustrates why it is critical to manage body condition score prior to calving. Increasing cow condition during mid-gestation is inexpensive due to low nutrient requirements of the cow at that time, increasing cow condition during late gestation is more expensive but possible, increasing cow condition between calving and breeding is more difficult and usually very expensive. If your spring-calving cows need to gain condition prior to calving, please contact us as soon as possible so we can help design a nutrition program for these cows to optimize your resources.

Precision Minerals

by Dr. Ki Fanning, Ruminant Nutritionist

Great Plains Livestock Consulting, Inc. has been conducting mineral nutrition research for beef cows. Due to rising costs of phosphorus, special attention was paid to phosphorus requirements; phosphorus levels in grasses by month, type of grass, and region of the country. The availability of phosphorus and other minerals in grass have also been estimated. We have evaluated the research from local universities. After twelve months of work we have made some modifications to the current mineral program and have renamed it **The Precision Minerals**. The basic minerals still being used are a "Calving and Breeding Mineral", "Gestation Mineral" and Co-Product Mineral". All of the minerals are fed at 4 oz daily. We included salt at the animal's requirement because the manufacturer buys bulk salt and it is the cheapest carrier available, so using a different carrier would increase the mineral cost. Additionally, the producer would still have to buy and handle salt.

The **Precision Calving & Breeding Mineral** should be fed 2 months prior to calving, through breeding. The phosphorus increases the dietary level of phosphorus above the animal's requirement, even in severe conditions. This mineral contains organic trace minerals and a probiotic for improved health and production. The organic zinc, manganese, and copper improves hoof, eye, hide conditions, and conception rates. An increase in vitamin A, D, and E improve hide and eye health, calcium and phosphorus absorption, and immune status. If CTC is added to the Calving & Breeding Mineral, we have named it **Precision Fescue Mineral**. An endophyte binder is still available for the Precision Fescue Mineral.

The **Precision Gestation Mineral** should be fed 60 days after the bulls have been turned out until 60 days prior to calving. It is formulated according to the animal requirement and the available nutrients in the grass. The result is a lower level of expensive nutrients, thereby reducing the cost of mineral supplementation.

The final mineral is the **Precision Co-Product Cow Mineral** that should be fed during supplementation of high phosphorus feeds such as corn silage or by-products. This mineral is a calving and breeding mineral that is void of phosphorus.. We have increased the zinc and copper levels to offset the increased antagonists that come from the by-products such as sulfur and iron. Also, extra thiamin is added to this mineral to prevent any deficiency due to the sulfur level.

All of the minerals are void of potassium because the forages have enough and it works against magnesium which prevents grass tetany. All the minerals include a maintenance level of magnesium to improve forage digestibility and the magnesium level in the body. An increased iodine level was added to improve hoof strength. In most cases, options can be added such as CTC, Magnesium, Bovatec, Rumensin, Fescue Mate Plus, IGR, or Rabon.

In 2008 we will continue sampling grasses and researching mineral levels required by cattle. Please contact us if you would like your grasses sampled to evaluate your pasture and the compatibility of these minerals.