



**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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November/December  
2010

## The Latest Across the Plains



### Happy Holidays!

Winter is right around the corner! Another season has gone by and now we will prepare for the upcoming holidays and delightful winter weather. Cattle pens will fill quickly and the end of corn harvest has come into sight. We wish everyone the best this holiday season and hope everyone takes time to stop and enjoy family and friends without getting caught up to much in the hustle and bustle that comes along with this time of year. Have a safe and happy holiday and please find the enclosed calendar as a thank you from the staff at Great Plains Livestock Consulting, Inc.

### ProfiTrac – Feedlot Monitoring

The ProfiTrac program that started a year and a half ago continues to evolve into a tool built to fit your needs. We would like to thank all of those who have taken advantage of this service for their time, interest, and use of this management tool. We are going to start charging for the service **January 1, 2011**. Any cattle that start on the ProfiTrac program **before January 1, 2011** will **NOT** be charged a fee at all and will be closed out free of charge. However, any cattle started on the program after January 1, 2011 will be charged a fee. In the table below you will find the pricing structure for the service. If you have any questions please give Brent Nelms or your nutritionist a call. Again, we appreciate those utilizing the ProfiTrac program and hope to continue working with you through this service.

Pricing	Terms	Price
\$0.25 /head/month	Feed sheets submitted are faxed in, mailed to our office, or the cattle are on a self-feeder.	<b>\$0.25 x 1 head x 6 months = \$1.50/ head/ 6 months</b>
\$0.15 /head/month	Feed sheets submitted are emailed in using the ProfiTrac Microsoft Excel spreadsheet.	<b>\$0.15 x 1 head x 6 months = \$0.90/ head/ 6 months</b>

## Staff



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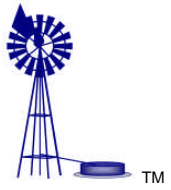
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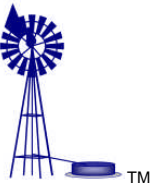
## Calendar of Events



- **Nov. 6-19** North American International Livestock Exposition, Louisville, KY.
- **Nov. 17-19** CCA Mid-Winter Conference, Colorado Springs, CO.
- **Nov. 19-20** Kansas Convention & Trade Show, Great Bend, KS.
- **Nov. 25** Thanksgiving
- **Nov. 29** What's Under the Hide? Beef Grid Marketing Workshop, Edgewood, IA.
- **Dec. 1-2** SDCA Convention and Trade Show, Aberdeen, SD.
- **Dec. 2-5** North Star Classic, ND Winter Show Bldg., Valley City, ND.
- **Dec. 8-10** Nebraska Cattlemen's Annual Convention, Kearney, NE.
- **Dec. 10-12** Winter Classic Beef Show, Lansing, MI.
- **Dec. 12-15** 2010 WSGA Winter Roundup, Casper, WY.
- **Dec. 14-16** 6<sup>th</sup> Annual Nebraska Ag Classic, Kearney, NE.
- **Dec. 17-18** Missouri Cattle Industry Convention & Trade Show, Columbia, MO.
- **Dec. 25** Christmas



# The Great Plains News Feed



## 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 to pastures.

### Swine

- ✓ Check ventilation and heater settings for winter months.

### Unused Feed

- ✓ It don't take a genius to spot a goat in a flock of sheep.

## Feeding Facility Design – Fighting Mud



By Dr. Dan Larson, Ruminant Nutritionist

By anyone's yardstick, last spring and summer were wet and mud was a serious management headache for cow/calf producers and cattle feeders alike. While there is nothing we can do to eliminate mud completely, appropriate facility design and maintenance can make a huge difference in the effect mud has on performance. Mud is one of the biggest enemies of productivity in a feeding operation; 3 inches of mud reduces ADG by 7% while mud to the hock reduces gain by 28%. Perhaps more importantly, environmental regulations are increasingly strict and will dictate cattle housing in the future to varying extents. Below are some suggestions for designs we have seen work well. However, consult local EPA officials for state-by-state regulations.

The obvious choice to limit environmental concerns is to put up a confinement shed. There are three common types of feedlot buildings; gabled roof, monoslope, and the hoop barn. Regardless of building type, appropriate design and orientation are critical. The most successful sheds are oriented east to west to take advantage of sun in the winter and shade in the summer on the bunk lines. Well designed buildings also maximize airflow by leaving north and south faces open, with an optional curtain on the north to block wind in the winter. **Sheds designed with a solid wall spanning either a portion of, or the entire vertical face of the north wall, lack adequate airflow.** This will result in a hot building during the summer and a wet pen surface year around. A feedlot shed should be designed to keep cattle dry and block sun in the summer. The monoslope concept has gained popularity in recent years due to improved airflow and usage of sunlight for heating. These buildings are designed with a 20-25 ft high south face and a 14-18 ft high north face. Likewise, the hoop building is popular due to the height of the building for cooling in the summer and the ability of the sun to warm the building in the winter.

The pen floor of the shed should either be concrete or stabilized with fly ash or lime. If a dirt floor pen is chosen, the first 12 feet behind the bunk line should be concrete to allow for scraping. The 12-foot apron can also serve as a drover's alley if the feed driveway is outside. A short 3-4 inch step

behind the bunk is useful if starting young, small calves. In many situations, H style bunks promote less feed wastage than J style bunks. Concrete bunks last longer and are easier to clean than wooden bunks, although they are more expensive initially. Regardless of bunk type, growing cattle should have a minimum of 12 inches and finishing cattle a minimum of 6 inches of bunk space per head.

If you choose to feed cattle outdoors, appropriate pen design can help limit mud, and its effect on performance. In areas prone to high yearly precipitation or with heavy soil, allow 400 to 600 ft<sup>2</sup> per calf. Less area (<300 ft<sup>2</sup>) is acceptable in well drained or impermeable earthen lots. Concrete or covered lots require substantially fewer square feet (<100 ft<sup>2</sup>) per calf, depending on type. Pen surface stabilization using lime or fly ash will substantially reduce mud, if applied appropriately. Runoff control and environmental protection must also be a component of outdoor feedlot design. Appropriate soil type is essential. Runoff control depends on head count and local regulations. Contact local authorities on regulations in each state.

Wind protection and/or bedding are integral in areas prone to cold winter temperatures. Windbreaks need to have at least 20% open space as solid windbreaks create undesirable air currents, which reduce the effectiveness of the windbreak. Place windbreaks on the north and west side of the lots. Removable windbreaks, such as round bale stacks, are ideal to allow maximum airflow during the summer months. Research has shown that even modest bedding in cold climates can improve animal performance by up to 25%. Similar to feeding in a shed, managing the bedding pack outdoors is critical in order to avoid creating a muddy, wet area in the pen. Plan to use approximately 2 bales of corn stalks to bed one calf through the growing and finishing phases in a shed.

The decision to feed indoors or out is regional and depends on weather conditions and environmental regulations. Whichever facility is chosen should be foremost designed to keep cattle comfortable in all weather conditions. Keep in mind, maintenance energy requirements of cattle increase when the temperature falls below 18°F and wind compounds the problem. Conversely, temperatures above 86°F cause heat stress and wind helps alleviate this problem; humidity compounds the problem. Adequate water space is also critical to manage heat stress and promote gain. Allow at least 1 inch per head during the winter and 2-4 inches per head during the summer. It's clear that an appropriate feedlot design is critical for optimum comfort and performance. Visit with your nutritionist and let us help you design or revamp your facility.

## Feeding Distillers Grains in Feedlot Diets Can Eliminate Need for Urea



By Zeb Prawl, M.S., Ruminant Nutritionist

As the federally mandated demand for ethanol continues to increase, production of corn by-products such as Distillers Grains continues to increase as well. Remember that about two-thirds of the corn bushels used in ethanol production are actually recovered as ethanol. The other third is the by-products that the cattle feeding industry has grown to love, due to the high level of energy and protein they can economically add to a diet in place of corn. When it comes to balancing beef cattle diets using Distillers Grains, there usually is a shortage, on paper at least, of Degradable Intake Protein (DIP). DIP is needed in the

rumen to feed bacteria so that they may continue to proliferate and take an active role in feed particle breakdown. These bacteria are living organisms themselves that need a constant supply of both protein and energy to survive. Because some fractions of protein in different feedstuffs are unavailable for breakdown in the rumen by these bacteria, it is important to balance diets making sure we have enough DIP for these bugs to continue to thrive.

Urea is an excellent source of DIP because it is so easily broken down in the rumen and able to be utilized by rumen bacteria as a protein source. Conversely, Dried Distillers Grains (DDG) typically contain only about 28% DIP, relatively low compared to the 45% usually found in corn. With these numbers, one would expect that we have a shortage of DIP when we replace corn in the diet with DDG. However, work that has been done by the University of Nebraska would suggest otherwise.

Heifers were finished using diets that contained either 10 or 20% DDG with and without added urea in this study. Both diets without added urea had calculated values that indicated a shortage of DIP in the diet. However, researchers found in this study that not adding urea to the diets had no negative effects on cattle performance or carcass characteristics.

### Performance measurements for finishing diets containing DDG with or without supplemental urea.

	10% DDG	10% DDG + Urea	20% DDG	20% DDG + Urea
DMI, lb	24.5	24.9	23.9	24.6
ADG, lb	3.51	3.68	3.55	3.60
Feed/Gain	7.02	6.79	6.82	6.95

Source: Degradable Intake Protein in Finishing Diets Containing Dried Distillers Grains; Vander Pol, et al. 2005

Furthermore, when blood was sampled for Blood Urea Nitrogen (BUN), all cattle in the trial showed a level present in their blood which was at least 50% above what is considered to be the minimum level of BUN needed to maintain optimum performance. This indicated that adequate DIP was provided to the rumen and cattle performance in this trial confirmed it.

Implications from this work could be beneficial for many cattle feeders. Typically urea has been used as an economical protein source for cattle. However in recent years with the higher costs of nitrogen, this is not so true anymore. With the addition of Distillers Grains to cattle diets in place of corn, we typically don't need to supplement additional protein to meet the animal's needs. Studies like this confirm that performance can still be maintained without the urea. It's also good news for anybody that has had to beat their urea-containing supplements out of an overhead bin! To find out if this research can be applied to your cattle feeding operation, contact Great Plains Livestock Consulting so our nutritionists' can take a look and evaluate your feeding programs.



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