



Great Plains Livestock Consulting, Inc.

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The Great Plains News Feed



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The Latest across the Plains



Good Luck

Many of us across the plains and Midwest have experienced about every weather system Mother Nature has to offer and spring time is coming into sight. Some are on the downhill side of calving while others are just getting started. We hope and pray that everyone has a successful and safe calving season.

We would like to introduce Mr. Brent Nelms with this installment of the Great Plains News Feed. Many have had the opportunity to speak with Brent when calling the office tracking down a nutritionist or phone number. Brent helps our clients construct media to promote products and looks forward to learning and growing with GPLC and its clients.



Brent is the newest member of the GPLC office staff. Growing up around a ranch/feedlot operation in southwest Nebraska, Brent developed a strong interest in the beef industry. He is currently pursuing a Bachelors of Science Degree in Animal Science at the University of Nebraska. Brent assists Stan in the office with customer service, helps structure marketing tools such as brochures, and generates product information to help manufacturers connect with producers.

Try us out

For some people the first order of business in the morning is to grab some coffee and head to the computer to check their e-mail, news, and market quotes. If you are one of those people then we invite you to start the morning with us. Check us out at www.GPLC-Inc.com powered by DTN™. At the top of our webpage, above the bar of pictures, are six headings. The "Weather", "Ag News", and headlines sponsored by DTN™ take three tabs. The "Quotes" tab takes visitors to a short list of current market quotes and access to a quick reference guide to get a different quote. "Future Quotes" can be accessed and quickly retrieved just as the current quotes can be accessed. Frequent visitors can click the "Portfolio" tab and create a personalized list of quotes. Simply use the guide to reference symbols for quotes to be viewed and that quote list will be saved on your computer for your next visit. Change it as often as you want and whenever you want.

We continue to update our website with information to further assist our visitors. The newest addition is our "Livestock Sources" link which 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. You can also view this newsletter and others on the website.

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Timely Reminders

Beef

- ✓ Scrap pens as soon as possible
- ✓ Be ready to add shades if you have plans to do so.
- ✓ Beef cows calving should be in a BCS of 6 and not fall below a 5.5.
- ✓ Be sure to adjust cow nutrition to match requirements as they calve
- ✓ Spring is just around the corner, get your high-Mag mineral booked

Swine

- ✓ Make plans for summer marketing; 70-75% of yearly profits are made in summer months
- ✓ Corn prices are high, check fat levels in diets or plan when to use fat in diets for summer due to limited pig space.

Remember that DG is not the only part of your production system. The research clearly indicates potential for DG to improve reproductive performance of heifers and young cows when used as a supplemental source of protein and energy. Monitoring cow BCS is still extremely important to insure optimum production and reproduction in your herd. Age of cow, system of production, calving date, and other variables determine what the optimum BCS of a cow should be. In general, most cows should be at BCS 5 to 6 at the time of calving. First calf heifers should be a BCS of 5.5 to 6.5 at calving, and generally need to be 0.5 BCS units higher than mature cows. Weight gain or loss after calving interacts with BCS at calving to influence how soon a cow will become pregnant during the next breeding season. Thin cows need to gain weight rapidly between calving and breeding to achieve acceptable pregnancy rates.

With feed prices continuing to escalate, now is the time to contact GPLC so our nutritionists can help you design a nutritional program for your cows and heifers to insure your fall pregnancy checks go well.

temperature which the animal incurs heat stress and a wet hide will decrease the lower temperature in which the animal incurs cold stress. Additionally, the animal is able to adapt to the different seasons by eating patterns, hair length (Table 2), water intake, and daily habits.

Table 2. Lower Critical Temperature for Cattle with Seasonal Hair Coats

Hair Coat	Lower Critical Temp (°F)
Summer/Wet	60
Fall	45
Winter	32
Heavy Winter	19

Table 1. Potential Loss Caused By Mud at 21 to 39°F

Mud Depth	Loss of Gain
Dewclaw	7%
Shin	14%
Below Hock	21%
Hock	38%
Belly	35%

In summary, mud depth is the greatest inefficiency when feeding cattle. Mud can be limited by proper drainage (pens and lots), concrete (feed pads), or shelter (roof). Cattle have a great ability to adapt to cold weather provided their hair coat stays dry; however, they cannot deal with heat as easily so be sure not to block any air flow and build mounds to increase air flow. Shades are also a good idea to reduce heat stress. Always keep in mind your return on investment.

Distillers Grains in Heifer Development and Co Rations



by Dr. Jeremy Martin, Ruminant Nutritionist

The majority of replacement heifers and brood cows are supplemented with protein and energy at some point throughout the year. In forage-based diets, distillers grains (DG) have approximately 125% the energy value of corn and are nearly 30% CP, with greater than 50% of the CP as bypass protein. As the supply of DG increases, more DG are being used on the ranch. While limited research using DG in rations for beef cows and heifers is available, the research strongly indicates DG may benefit reproduction.

Martin et al., (2007 Journal of Animal Science) compared DDG versus a supplement that supplied the same level of protein, energy, and fat; fed to heifers from shortly after weaning through a synchronized AI period. An ADG of 1.5 lb/d was targeted to achieve approximately 60% of mature weight at breeding. Protein degradability of the supplements differed such that bypass protein was fed in excess of requirements for DDG heifers. Supplements were fed daily and heifers were allowed free-choice access to 54% TDN grass hay. Supplement intake was adjusted to 0.73% of body weight for CON and 0.57% of body weight for DDG heifers following each weigh date. Each group was fed their respective supplement through the last day of AI, at which time heifers were placed in a single group on pasture.

There was no difference between groups in age, initial weight, initial BCS, or weight and BCS at final pregnancy diagnosis. Final weights and ADG were similar between groups at location one but were greater for DDG heifers than CON heifers at location two. Supplement type did not influence the proportion of heifers that had achieved puberty prior to synchronization, or average age at puberty. **Conception rate to AI was greater for DDG than CON heifers (75.0% vs 52.9%).** Overall pregnancy rates following exposure to bulls were similar ($P > 0.05$) between DDG and CON heifers.

Additional research compared feeding 6.8 lb per day DDG or 7.6 lb per day soybean hulls to bred heifers for the last 90 days of gestation (Engel et al., 2006 SDSU Beef Report). No difference in weight or BCS between the heifers at any time, but heifers supplemented with DDG had 92% pregnancy rates during the following breeding season, compared to 80% for heifers fed soybean hulls.

Performance Differences due to Environmental Condition



by Dr. Ki Fanning, Ruminant Nutritionist

Many questions are raised about windbreaks and shelters. Keep in mind your objectives, better ADG and F/G in both hot and cold weather. Knowing this, build or modify your facilities to meet your goals.

The University of Nebraska (UNL) (Mader et al. 1997) conducted a three year study where cattle were finished in open lots, lots with a windbreak and lots with an overhead shelter. There were no performance differences due to wind protection or shelter in the autumn or winter; however, the cattle in the open lots had a higher marbling score (5.82 vs. 5.49) and thicker back fat (1.38 vs. 1.62 cm) than the cattle with protection. In the winter, cattle in open lots had a higher yield grade (2.64) than cattle in a shelter (2.38). Cattle with a windbreak had a yield grade (2.47) that was similar to an open lot and shelter, annually.

In the summer, cattle with windbreak or shelter resulted in a decrease in gains (0.26 lb ADG). DMI or F/G did not differ between pens, but it did between seasons. DMI as a percent body weight was 2.21, 2.19, 2.18, and 2.35% for winter, spring, summer, and autumn. F/G was 6.90, 6.01, 7.32, and 7.45 for winter, spring, summer, and autumn.

Although Nebraska has as severe of winters as the states east of it, it does not get the amount of rain and snowfall. Therefore, we must look at the performance effect of mud. Bond et al. (1970) reported that mud would reduce the ADG of cattle by 25 to 37% and increase F/G 20 to 33%. According to the NRC, four to eight inches of mud can reduce DMI of animals 5 to 15% and 12 to 24 inches of mud can reduce DMI 15 to 30%. In Table 1, UNL estimated performance loss due to mud depth. Use your energy adjuster in feedlot tracking programs. An outside lot with frequent deep mud, 1.3 times; in an outside lot mounded and bedded during cold stress, 1.1 times; and no mud with shades and good ventilation and free of cold or heat stress 1.0 times should be used.

An animal's thermoneutral zone is the range of temperature that an animal does not experience any heat or cold stress. Hahn, 1999 reported this range for cattle to be 23 to 77°F for cattle. Humidity will lower the

Body Condition of the Mature Horse



by Dr. Jason Schneider, Monogastric Nutritionist

Winter is finally coming to a close and with the new spring grass expected soon it is a vital time to examine the body condition of your horses. Body condition refers to the amount of fat on a horse's body. Typically, fat tissue serves store energy and is produced when the horse is receiving and digesting more energy than is needed for maintenance and production processes. The body then is capable of storing energy as body fat so in case of low energy intake at a later date due to environmental conditions such as drought or poor nutrition. Over time, horses consuming rations with more energy than is needed will increase body fat. Consequently, horses receiving less energy per day than is needed will use significantly increased amounts of fat for an energy source, which decreased the amount of body fat.

Much of this body fat is subcutaneous, meaning fat accumulates in layers below the horse's skin. This cover can be visibly assessed in several specific locations on the horses body (Figure). The desired level of body condition will vary between horses. As a rule, horses used in athletic performance will maintain a lower body condition than non-performing horses. Additionally, horses will vary in the optimal body condition for the functions that they perform because of individual body structure differences. For example, one horse may perform athletic competition more effectively in a thinner condition as compared with another individual performing the same task in a heavier body condition. Therefore, the optimal body condition of individual horses can vary widely due to performance and nutrition differences.

The ability to accurately assess body condition allows horse owners to make ration adjustments that maintain horses at desired fat levels. A universally used scoring system assists communication between horse owners. This scoring system ranges from 1 to 9 with 1 being very thin and 9 being extremely fat. Obviously, this system can be very subjective between individuals and takes practice to accurately score each horse.