



Great Plains Livestock Consulting, Inc.

500 S. 4th St.
P.O. Box 377
Eagle, NE 68347

The Great Plains News Feed



Great Plains Livestock Consulting, Inc.

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**January/February
2009**

The Latest across the Plains



Happy New Year!

One more year has come and gone while another begins. We hope everyone's Christmas went well and want to wish everyone a wonderful and prosperous 2009. A new year means new beginnings and fresh starts. Great Plains Livestock Consulting, Inc. is starting 2009 in a new office. We will ONLY be changing our address. All phone numbers, fax number, website, and e-mail addresses will remain the same. Below is our new address.

NEW Address

500 S. 4th St.
P.O. Box 377
Eagle, NE 68347

We officially moved at the end of 2008 and are now settling into our new office. We apologize for any delay in service during this transition. We were without a fax line and email for a couple days and appreciate your patience and understanding. We are now conducting business as usual and will continue to provide the customer service you have come to rely on and expect from Great Plains Livestock Consulting, Inc.

Side Note

We invite everyone to check out the new movie *All Roads Lead Home*. The movie was filmed at the equine center on Stonecrest Farms where Great Plains Livestock Consulting, Inc. serves as consultants. The manager/trainer at Stonecrest is a son to our office manager, Stan Smith. Check your local movie rentals for this family movie.

Staff



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Office/Marketing

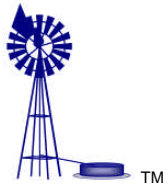
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"Turning Science into Money"

Calendar of Events



- **Feb 3-4** Illinois Pork Expo, Peoria, IL
- **Feb 5** Dairy Days Workshop, Ryan, IA
- **Feb 6** Cattlemen's Day and Trade Show, Gudmundsen Sandhills Laboratory Wagonhammer Education Center, Whitman, NE
- **Feb 6-7** Kansas Cattlemen's Assoc. Annual Convention, Salina, KS
- **Feb 10-12** World Ag Expo, Tulane, CA
- **Feb 11-12** Missouri Pork Expo, Columbia, MO
- **Feb 12** KSU Dairy Days, Seneca, KS
- **Feb 13** South Dakota Cattlemen's Ranchers Workshop, Highmore, SD
- **Feb 19-22** Illinois Beef Expo, Springfield, IL
- **Feb 24-25** Missouri Cattlemen's Young Cattlemen's Conference
- **Feb 25-27** Nebraska Cattlemen's Young Cattlemen's Conference
- **Feb 26** KSU Dairy Days, Whiteside, KS



The Great Plains News Feed



Timely Reminders

General

- ✓ Please note our new address listed on the front

Beef

- ✓ Switch cowherd to Calving & Breeding Mineral 60 days prior to calving
- ✓ Remember protein and energy requirements increase during the last third of gestation
- ✓ Twine or net wrap have no nutritional value
- ✓ Bulls and pregnant cows need 6-8 gal. water/day and lactating cows need 11-14 gal. water/day (liquid form works best)

Unused Feed

- ✓ Always take a look at what you're about to eat. It's not so important to know what it is, but it's sure crucial to know what it was.

requirements of cattle with wet coats also increase much more rapidly than requirements of cattle with dry coats. For every degree the wind chill is below 59 degrees, cattle that are wet require 2% more energy to maintain body temperature and body weight. See Table 1 for a direct comparison of how moisture affects energy requirements of cattle during cold weather.

As cold stress increases maintenance energy requirements of cattle, nutritional management must compensate for increased energy requirements in order to maintain performance or body condition score. The appropriate strategy depends greatly on the type of cattle and feeding situation.

Feedlot cattle on rations designed for maximum gain are consuming high levels of energy compared to their maintenance requirements. Therefore, managing cold stress in feedlot cattle is more likely to be done with management than ration changes. Dry matter intake of feedlot cattle increases during cold weather, compensating somewhat for the effects of temperature. In extreme cases of cold where cattle do not want to come to the bunk, it is wise to "back up" a ration before cattle come aggressively to the bunk. Increasing the roughage by one step limits the potential for digestive disorders. However, this should be reserved for extreme situations. If cattle are being fed on schedule and consumption is not limited substantially by weather conditions, there is no need to use a storm ration.

Cows in a drylot will generally eat more in cold weather, and simply delivering more feed is a viable option to minimize the effects of cold stress. Grazing animals often have reduced intake during cold snaps, especially if they must be exposed to wind in order to graze. Energy supplementation can help maintain body condition score in grazing situations. We recommend fiber-based energy supplements such as soybean hulls, gluten feed, distiller's grains, etc. to provide energy without reducing forage digestibility. If weather conditions prevent cows from grazing, enough hay should be fed to keep cows full. Avoid the temptation to feed cows more than 0.3% of body weight in corn or other grain during cold stress, unless your diet is specifically designed to do so. Although concentrates contain more energy, forages produce more heat in the rumen and aid cows in maintaining core body temperature.

matted down. Hopefully this last summer or fall they were cleaned and the manure spread on crop ground; however, if that is not the case any chance to scrape the pens and remove the manure this winter will help the animals' performance and health. Table 1 shows the loss of gain with increasing depths of mud.

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

University of Nebraska, Animal Science Department.

If the pens were muddy prior to this cold weather and the surface area is rough and hard to walk on, it is a good idea to smooth the surface of the pens with a blade, scraper, or drag. This will increase the number of times that cattle will visit the waterers and bunks, resulting in better efficiency and gains, and may even reduce digestive upsets.

If it snows, the bunks should be blown or scooped out so that the feed does not freeze in the bunks when the snow melts. It will also improve intakes if the cattle are not trying to eat feed that is placed in snow or frozen down.

With erratic weather patterns, intakes are bound to be variable, and it is very important to feed the cattle within 15 minutes of the same time each day. This will minimize the chances of the cattle bloating and reduce the swings in intake.

We suggest bedding cattle in sub-zero conditions when the ground is muddy or snow covered. Lying on cold, wet ground quickly robs cattle of body heat and makes it more difficult for them to maintain core body temperature. Bulls should be bedded in extreme cold weather to prevent frozen testicles.

Windbreaks are an often-overlooked part of cold weather management. The wind-chill is ultimately the temperature that affects cattle, so anything you can do to reduce the effects of wind are helpful. Make sure grazing cattle have access to some topography feature to block the wind. Cattle in a feedlot benefit from mounds, silos, etc., but if you have pens that are unprotected, think about how you can provide protection to those cattle. Something as simple as stockpiling hay or manure to provide a windbreak for outlying pens can pay big dividends.

If cattle are in pasture or grazing crop residue, make sure that access to water is adequate. There must be more than a small hole in the ice for the cattle to drink from. The cattle should not be permitted to walk out on the ice, giving them the chance to fall through. Pregnant cows fighting around water are bound to abort a calf, and yearlings will have reduced gains if they must fight for water.

If it is not muddy or if the ground is frozen, feeding pasture cattle in different areas of the pasture will reduce disease and will spread the manure out as opposed to concentrating it in a single area. It will also prevent grass from being trampled out in one spot. The body condition score of grazing cattle should be monitored closely because cold weather can change their grazing behavior and thus their ability to acquire energy from the forage. The amount of feed fed needs to be adjusted depending on snow and ice cover, animals' body condition score, and available forage remaining.

My final thoughts: a sincere thank you to all willing to endure the extreme weather conditions. Your commitment helps feed families nationally and internationally.

Winter Weather Effects on Nutrient Requirements of Cattle



by Dr. Jeremy Martin, Ruminant Nutritionist

Most of us have had a little taste of winter weather in the last few weeks, more than we would really like in most cases. Cold weather also affects cattle, and most of us don't have the resources to clothe all our cattle in cold weather. The real issues for cattle producers are:

- 1) At what temperature does cold stress begin?
- 2) What affect does moisture have on cold stress?
- 3) How do energy requirements change in response to cold stress?
- 4) How should cattle nutrition programs change to compensate for cold weather?

Lower critical temperature is the temperature at the lower end of the thermoneutral zone, at lower temperatures cattle must compensate by increasing heat production, and thus they have higher maintenance energy requirements. The lower critical temperature for cattle with dry, winter coats is generally considered to be about 30 degrees Fahrenheit (including wind chill). The lower critical temperature is dependent on body condition, coat thickness, wetness, and ability to find shelter from the wind. Below this temperature, energy requirements of cattle increase approximately 1% for each degree the wind chill is below 30 degrees. Therefore, if the actual wind chill is 0 degrees, maintenance energy requirements have increased by 30%.

Table 1. Comparison of Wind Chill Effects on Energy Requirements of Cattle with Wet or Dry Coats

Wind Chill (deg F)	Increased Energy Requirements of Cattle with Dry, Winter Coat	Increased Energy Requirements of Cattle with Wet Coat
59	0%	0%
32	0%	27%
15	17%	44%
0	32%	59%
-20	52%	79%

Moisture has a tremendous effect on maintenance energy requirements of cattle during cold weather. The lower critical temperature for cattle with wet hair coats is generally considered to be 59 degrees Fahrenheit. Dry hair coats trap air and provide a layer of insulation to help cattle cope with cold stress. As their coats become wet, the hair lays flat and the cattle are deprived of their layer of insulation. Energy



Thanks to Gary Tibbets, Zinpro Corporation for the photo of cattle on a research project, taken at the University of Nebraska West Central Research and Extension Center many years ago.

Cold Weather Management



by Dr. Ki Fanning, Ruminant Nutritionist

Cold stress in cattle is a reality many of us have faced in the last few weeks, and it can be very detrimental to performance if not managed correctly.

In a feedlot, it is very important to keep the pens in top condition through the winter so that the cattle's hair coat is not