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The Great Plains News Feed

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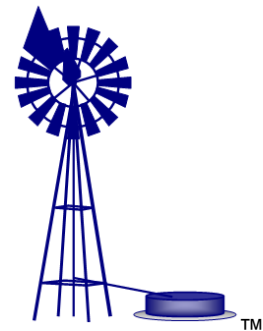
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**July/ August
2012**

The Latest Across the Plains

Fair Time!

No doubt that everyone's kids have every 4-H project completed, every calf leads with no problems and the hogs never pick fights... yeah right. There never seems to be enough time to get things ready for the fair. Gardens will be picked, livestock loaded, and hopefully there are some flops from baking projects to eat. As far as livestock is concerned remember we work with livestock in their working clothes and show clothes too.

Summer High School Interns

If you have called into the office this summer you might have talked with Jacob Wenger or Trevor Spath. Both are learning about cattle nutrition and what it takes to run an office. Jacob and Trevor will be returning to high school soon as sophomores. Many thanks for all their help this summer.

We want to hear from you....

Do you have a question you would like one of the nutritionists to address in depth in our newsletter? Just submit your question through our website www.gplc-inc.com and we will get to work on it.

Be Safe Around Silage

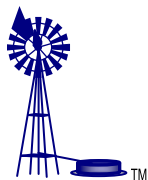
Precautions to take while packing silage

- ❖ Use a tractor with a rollover protective structure (ROPS)
- ❖ Wear your seat belt
- ❖ Only experienced operators drive the packing tractor
- ❖ Set the tractor's wheels wide apart
- ❖ Pack the forage at a maximum slope of 3:1 – pack 3 feet of silage horizontally for each foot that you pack vertically
- ❖ When packing on steeper slopes, back the tractor up the slope
- ❖ In a trench silo, pack forage evenly in both directions so that you can drive off the wall onto the ground
- ❖ Using two tractors – establish a driving procedure to prevent collisions
- ❖ Do not overfill the bunker; it could cause an avalanche
- ❖ When covering a bunker, trench or pile work from the edge to the center
- ❖ Do not be complacent on safety.... it only takes one time! (Schoonmaker, 2000)

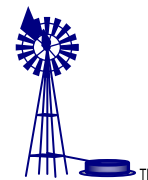
Schoonmaker, K. (2000). Four ways to be safe around Silage. *Dairy Herd Management* , 58,60,62.

Calendar of Events

- **Aug 2-7** Wisconsin State Fair in West Allis
- **Aug 9-19** Illinois State Fair in Springfield
- **Aug 9-19** Iowa State Fair in Des Moines
- **Aug 9-19** Missouri State Fair in Sedalia
- **Aug 13-19** Indiana State Fair in Indianapolis
- **Aug 16** Central Plains Beef Industry Days Howells, NE
- **Aug 16** Forage Nitrates Workshop at Weaubleau High School, Weaubleau, MO
- **Aug 23-Sept 3** Minnesota State Fair in St. Paul
- **Aug 24-Sept 3** Colorado State Fair in Pueblo
- **Aug 24-Sept 3** Nebraska State Fair in Grand Island
- **Aug 28** Building Better Heifers, at Dalebanks Angus, Hosted by KS State University, Eureka, KS
- **Aug 28** 2012 Feeding Quality Forum, Grand Island, NE www.CABpartners.com
- **Aug 29** Building Better Heifers at Bar Arrow Cattle Co., Hosted by Kansas State University, Phillipsburg, KS
- **Aug 30-Sept 3** South Dakota State Fair in Huron
- **Aug 30** 2012 Feeding Quality Forum, Amarillo, TX www.CABpartners.com
- **Sept 7-16** Kansas State Fair in Hutchinson
- **Sept 13-23** Oklahoma State Fair in Oklahoma City



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Timely Reminders



General

- ✓ Clean water sources on a weekly basis.
- ✓ Lock in at least part of your by-product needs. Keep an eye on commodities contract prices the next two months
- ✓ Have us sample hay and silage to test for nitrates (silage greater than 4 weeks after harvest).
- ✓ Harvest for forage; failed corn and soybeans.

Beef

- ✓ Start thinking about weaning calf diets.
- ✓ Contact your nutritionist for creep feeding options.
- ✓ With high feed prices re-implant cattle.
- ✓ Spring calving herds should be pulling bulls soon.

Swine

- ✓ Check feed budgets.
- ✓ Evaluate optimum slaughter weights.

Equine

- ✓ Keep an eye on hay/forage quality.

Unused Feed

- ✓ Never kick a cow chip on a hot day. ~Proverb

Harvesting Drought Stressed Forages



By Ki Fanning, Ph.D., Ruminant Nutritionist

This year is proving to be challenging, with the drought area more wide spread and the hay and corn crop likely to be reduced. When combined with low ethanol prices, the result is reduced ethanol production, thus limited distillers grains supply. From a cattle feeding perspective, byproduct feeds are likely to be priced higher relative to corn, and availability could be a concern. Therefore, rations changes may be necessary, and producers should look for opportunity ingredients such as buying failed corn for silage or hay, but the nitrate level may need to be considered.

Nitrate accumulation is caused by low light conditions, severe weather and/or herbicide application. Photosynthesis converts nitrates into plant proteins so a reduction in photosynthesis will allow nitrates to build up. Low lighting conditions such as cloudy days reduce photosynthesis and allow a greater level of nitrates to build up. Likewise, hail will damage and strip leaves that are the main area of photosynthesis. Cold temperatures, disease, and insects all damage and reduce a plants growth and allow for a buildup of nitrates. Herbicide applications such as 2, 4-D temporarily disrupt a plant's normal metabolic processes. Drought conditions may cause high nitrates but soil moisture must be present to allow the plant to take up nitrates.

The levels of nitrates vary by plant species, stage of maturity, part of the plant, and the amount of nitrogen applied as fertilizer.

Pigweed, kochia, lambsquarter, sorghum, oats, millet, and sudangrass are notorious for high nitrate levels but other plants can also accumulate nitrates to a dangerous level. A young plant is growing fast and taking up a lot of nutrients so younger plants have a greater chance of being high in nitrates. Nitrates are greatest at the lower part of the plant and least at the top. A field fertilized heavier with nitrogen fertilizer has more nitrogen available to be converted to nitrates in the plant.

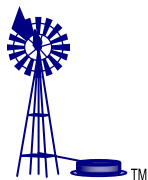
To reduce the nitrates harvested, raise the cutter head so that the most nitrate-dense part of the plant is left in the field. Cut hay or silage on a sunny day starting after lunch when the plant has had time to convert accumulated nitrates to proteins. Do not harvest forages the first two days after a rain because the rain water will stimulate plants and allow for greater nitrogen uptake.

Manage around nitrates by ensiling the feed if possible, test for nitrate level, dilute high nitrate feeds in the ration to limit total ration nitrates, and feed a balanced diet. The ensiling process will reduce the nitrate level by 40 to 60%. Avoid feeding green chop silages that have been allowed to heat. Heating, without ensilation, converts nitrates to nitrites which are more toxic. Be certain silages have had at least 30 or 45 days to ensile completely prior to feeding. Test the forage to determine an approximate nitrate level but remember the level is of the sample taken not the whole (i.e. there could be pockets or bales of high nitrate feeds). Dilute the feed high in nitrates so the total diet nitrate concentration is safe for the class of animal you are feeding. Feeding a balanced diet will maximize rumen function and allow for better conversion of nitrates by the rumen microorganisms. This means that urea does not complicate the problem but may help if the diet is low in protein. Likewise, the risk of nitrate poisoning is less in high-energy rations than low-energy rations. Ruminants can be acclimated to a high nitrate level by slowly increasing the total dietary nitrates, much the same way feedlot cattle are adapted to a high grain diet. Feed your lower nitrate feeds to pregnant animals and your higher ones to growing animals.

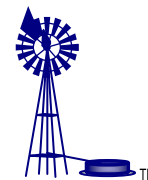
From past experience we know that ensiling failed corn can be an excellent feed. In fact if done correctly, the silage will have an energy value close to that of normal corn silage. The energy density of the forage part of a plant decreases with maturity so harvesting the failed corn as silage needs to be done at an earlier maturity than normally harvested. The whole plant moisture content should be 65%. This will maximize the fermentability and ensure a reduction in nitrates. Without the grain in the forage, it is even more important to use an inoculant and cover the silage pile.

Grazing can be an option but is higher risk because the animals do not naturally select against feeds high in nitrates. If you have to graze forages that could be higher in nitrates be sure to not overstock the pasture or strip graze. Supplement the animals on the pasture (more at the beginning to acclimate the animals). Graze a week after a killing frost, if possible, to prevent additional nitrate accumulation.

If you have more specific questions or want to design a feed budget around the available feeds you have in stock please contact one of us. We will be glad to help.



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Drought Causes a Cow/Calf Producer to Adapt



By Zeb Prawl, M.S., Ruminant Nutritionist

For cattle producers in the south that suffered through last year's drought, there has been little relief in terms of rainfall and temperatures this year. Unfortunately, almost 2/3 of the country now is experiencing some form of that same heat and drought. It is more evident than ever that drought in the south doesn't affect the grain markets much, but drought in the Corn Belt will make everything go crazy! With a continually shrinking cow herd and calf supply, it is anyone's best guess between whether or not cattle prices will continue their downward slide due to the high cost of feed, or if the supply will be so tight that it will make them worth more. Whichever the case, we need to be making the right decisions now in terms of taking care of light calves and making sure we keep cows in good enough condition to breed back and have another calf next year.

A common strategy to stretch pastures and decrease the milking pressure on the cow while maintaining calf gains is to creep feed those calves. Usually when feed is cheap, it pays very well to creep feed calves. In times when feed prices increase, more consideration should be taken into account. If pasture supply is short, but there is nowhere else to go with the cattle, then creep feeding can help. If your calves are contracted and aren't going to make the weight goals, creep feeding can help. Or if cows are becoming thinner by the day and need a little less nutrient demand from milk production placed on them, creep feeding can help with that too. One of the best reasons for creep feeding in times like this might be the way it lets a producer train the light calf to come to the bunk to eat, and thus set them up for an easier transition if the need arises to early wean those calves.

Early Weaning in a drought can very well be a necessity. When forage supply is gone, ponds dry up and cows are losing condition, one should take drastic measures to salvage not only this year's calf crop, but next year's as well. A thin cow will not breed back well, if at all. If she hasn't gotten bred within 80 days of calving, she will be losing money.

On the other end, early weaning a calf crop is not an easy job. It requires additional labor, facilities and feed resources. Because lactation pressure roughly doubles the energy and protein requirement for a typical beef cow, it might be necessary to give her a break this year and still put some weight on the calves by getting them on feed.

One of the biggest considerations for an early weaning program for calves will be the diet. Feeds that are low in protein and available energy (and sometimes cheaper) will not do a good job at starting early weaned calves and keeping them going. These diets need to be higher in protein (16-18% crude protein, DM basis), and moderate in safe, useable energy levels. By-products like DDG, soy hulls, wheat midds and even corn gluten feed work very well in this situation, whereas diets high in corn should be used much more cautiously because they tend to be

overfed, leading to metabolic issues and health problems in the calf as well.

Work from Oklahoma State University illustrates the effects of early weaning not only on cow performance, but also on calves when weaned as early as 8 weeks of age:

	Normal Weaned	Early Weaned
Cow weight, lbs		
At early weaning (5/19)	816	832
End of breeding (7/9)	922	968
At weaning	920	1040
Condition scores		
At early weaning	5.04	5.07
End of breeding	5.69	6.29
At weaning	5.99	6.82
Days to first observed estrus	81	46
Pregnancy rate, %	83	100
Calf weight, lbs		
At birth	71	68
At early weaning	145	155
At weaning (205 day)	347	435
ADG, Early weaning to 205 days, lbs	1.27	1.77
Average Daily Feed, lbs	-	8.84
Feed/Gain, lbs	-	4.9

Although climate and market conditions are not favorable in most producers' opinions right now, there still is a chance to adapt to the situation and make the most out of it. It's not too late to still do some early weaning for spring calving herds and maintain cattle performance, and if the general lack of rain continues through the fall, there will be a lot of fall calves that will need to be early weaned and fed too in order for all to survive. Contact us at Great Plains Livestock Consulting so we can help you determine the best way to implement a plan for your operation.