Drought Year Feed Options for Cow Herds

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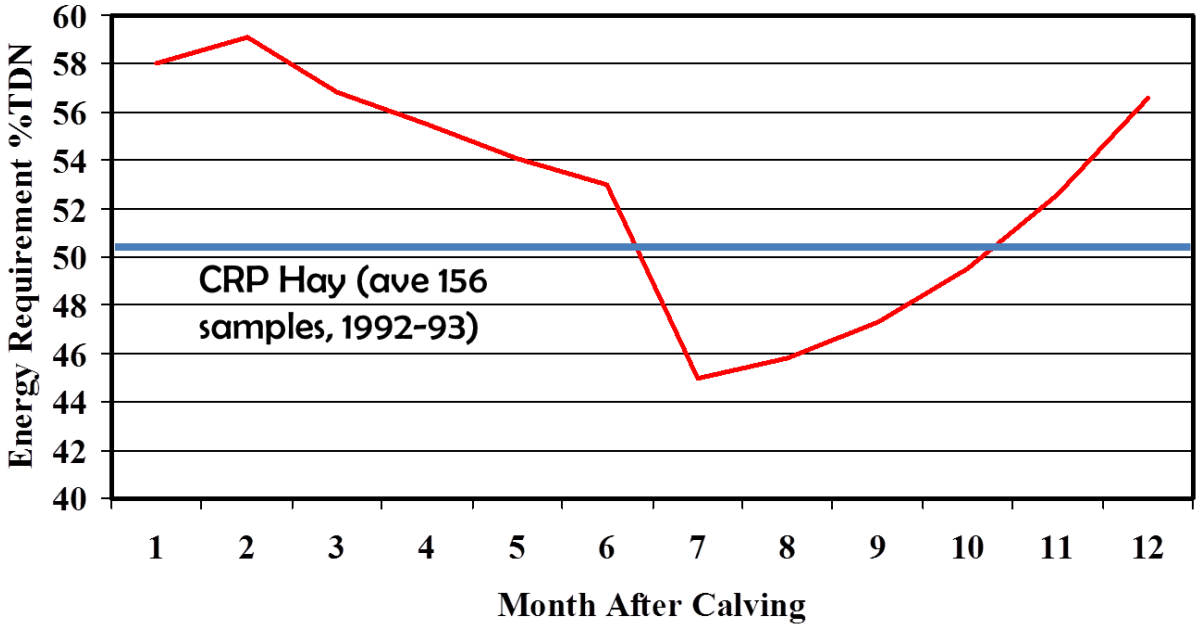
Cattlemen in Iowa and much of the country are beginning the home stretch with drought reduced feed and forage supplies from the 2012 crop. For many, hay supplies were significantly reduced or used to stretch the parched pastures and grasslands from last summer.

Nationally, ending stocks of hay were the lowest in decades and will be insufficient to meet the winter feed needs for many beef producers. Many producers were able to store salvage forage and crop residue feeds to fill in much of the feed supply gap. The good news is that haying conditions were excellent and the quality of the limited hay that was produced is superb. Hopefully some of the high quality forage was saved for the lactation period where nutrient demands are the highest. Otherwise supplementation will be the key to managing through the balance of 2013. So what are the feed options available? Here are some options that are still available for feed for cows and some tips for managing the nutrition with some of these feeds.

***CRP Hay*.** The quality of CRP hay will vary due to the species present and management. However, with an August 2 or later harvest date, it is very mature. Based on 156 samples collected in 1992 and 1993 by Iowa Beef Center staff, the average total digestible nutrients (TDN) was 50.9%. Crude protein was 9.7%. More recent samples of CRP hay have been similar on average. The fact that CRP hay is low in quality does not mean it cannot be useful in a beef cow diet. However, it should be fed during periods with the requirements of the cow are low (early gestation and after weaning), or supplementation will be required. To demonstrate this, Figure 1 shows the TDN requirements (%, Dry Matter Basis) for an average beef cow in good condition based on the stage of production (month after calving). This forage meets this cow's requirement from weaning until the last 1/3 of gestation.



Drought silage for cows. Corn silage harvested under drought conditions can be variable in nutritional value, but generally higher than most would expect. Silage that is normal height but stressed during pollination, or that would have grain yields in excess of 50 bushels per acre will have 90-100% of the feeding value of normal corn silage. Of course yields will be decreased. Only the stunted, severely stressed corn will have significantly lowered energy values, but will still be at or above the value of good quality grass hay. The reason for the greater than expected energy values is due to the fact that much of the sugar that would normally be converted to starch in the grain remains in the stalk. Some sample rations that utilize drought corn silage can be found in the publication "Feeding Drought Corn Silage to Beef Cows" on the IBC drought resources web page. Producers should be aware that drought silage has the risk to contain nitrates, which can be toxic to beef cattle at high levels. Tests in immature corn during this growing season confirmed that this was an issue. The ensiling process can reduce the nitrates that are present by 30-80%, depending on the quality of fermentation. Producers are encouraged to test silage before feeding and if it is high, blend it with other feeds to a safe level. If you are unsure, talk to your veterinarian or Regional Beef Specialist.

Corn stalks. Corn stalks will be similar in energy (TDN) to the CRP hay, but lower in protein. While there are no good statistics for this, a windshield survey indicates that more corn stalks were harvested this year than at any time in history. For producers that have the option of corn stalk grazing, this is the one single lowest cost feeding system for Iowa beef herds. The open winter and lack of fall moisture has allowed for excellent grazing conditions this fall and winter. Nitrates have been a surprising issue in corn stalks. Some rare cases of nitrate toxicity have occurred with cattle grazing corn stalks, and toxic levels have been found in some samples of harvested stalks. As with silage and green chop, the nitrates tend to concentrate in the stalk;

especially the lower stalks. In grazing situations, selectivity can limit exposure to nitrates. For harvested stalks, especially in TMR feeding situations where cows will be forced to consume high quantities of corn stalks, a nitrate test is encouraged this year. Most feed labs as well as the ISU Veterinary Diagnostic Lab offer this test. Once the level is known, dilution or supplementation to bring the total ration to safe feeding levels will often allow the forage to be utilized.

***Drought silage for growing cattle*.** If you have supplies of drought silage and are using it to background or finish out your calves, this can be a cost effective option. After testing to assure that the product is safe for feeding relative to nitrate content, diets of predominantly silage can produce daily gains of 2.0-2.5+ pounds per day. The product will require supplementation for protein and minerals. Backgrounding could continue for as few as 60-70 days, or up to 1,000 pounds or more depending on the amount to feed and the need to ration corn in the feeding program. A minimum of 70-80 days on a high energy ration will be required for cattle to produce acceptable carcass quality in normal market channels.

Commodity feeds. Soy hulls, wheat midds, hominy feed, whole cottonseed, oat byproduct, bakery byproducts all can be sources of energy for beef cattle. These commodity feeds quickly adjust in price due to market demands but occasionally can be priced competitively into beef rations. Corn processing co-products such as distillers dried grains; modified distillers grains, wet distillers grains, condensed distillers solubles and both wet and dry corn gluten feed have become among the lowest cost feedstuffs available to Iowa cattle producers over the past 5 years. Many are concerned about the availability and price of these feeds as ethanol plants reduce their production. It should be noted that given the size of the ethanol industry even at half production these feeds are still among the most abundant commodity feeds available. However, that does not mean that spot shortages or unfavorable pricing may not exist. The best advice relative to these feeds is to stay alert for opportunities and take advantage of them when they occur.

***Protein sources*.** If distillers grains and other corn co-products become priced such that they are no longer the lowest cost energy source compared to grains or other byproducts, then they will become sources of protein for beef cattle. Rather than feedlot rations that are 30 or 40% distillers grains, levels of 15-20% would likely meet this requirement. It is possible that the traditional sources of protein, soybean meal and urea will once again be lower in cost per unit of protein than distillers grains. Soybean based 32-36% protein supplements will be the likely source of complete supplements that utilize soybean meal. Urea based supplement will be non-protein nitrogen containing commercial supplements or liquid supplements, typically. Be sure to balance rations using metabolizable protein with incorporating urea into rations. The Beef Ration and Nutrition Decision Software (BRANDS) form the Iowa Beef Center can account for this.

Cattle are adaptable animals and there are many feed choices that can work. Producers are encouraged to evaluate all opportunities. Unfortunately when prices are high for corn and hay, prices are also high for most other feeds. The best program for any one producer will be very individualized and depend on local opportunities.

References

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