News Column

Stacy Campbell

K-State Research & Extension

October 30, 2015

Cow herd cost cutting tips

The months of August and September have been exceptionally dry for most of western Kansas. We were fortunate to have received an abundance of precipitation in May and July which may have resulted in some cattle operations having more than usual standing dry grass in a pasture or two at the conclusion of the summer grazing season.

If you have this situation, whether it is planned (stock piled) or by accident, and can take advantage of grazing this dormant standing grass, by all means you should do so. Grazing winter range or pastures has many benefits. It can save as much as a dollar a day per cow compared to feeding expensive hay. It removes old growth so pasture is fresher next spring and summer. And some weeds may be eaten that cattle won't touch during summer. Plus, there is little risk of damage to your dormant pasture. Be sure to leave adequate forage to protect the soil and improve infiltration rate from precipitation.

If your goal is to feed as little protein supplement as possible while winter grazing, then you must make sure your stocking level is light enough so cattle can select just the higher quality plant parts to eat.

If you do need to supplement protein to the cows while winter grazing, research at the Hays Ag Research Center on pregnant cows showed that performance was similar when protein supplement was fed less often, every 3 or 6 days. One key component is to be consistent on your feeding interval whether it is every 3 or 6 days.

When it comes to selecting protein supplementation for the cow herd there are many options available. To get the best bang for your buck it is recommended that you compare the cost per lb. of crude protein on a dry matter basis. For example if dried distillers grains (DDG) is 90% dry matter multiply 1 ton 2,000 x .90 = 1,800 lbs. dry feed. It is 32% crude protein (also on a dry basis) so multiply 1,800 lbs. x .32 = 576 lbs. of crude protein. If DDG is $150 per ton divide 150 by 576 = .26 cents per pound of protein. If you do this comparing several different types of protein supplements you might be very surprised in the significant price spread, especially if you compare it to self-fed sources of protein. If the protein supplement contains non-protein nitrogen the cost calculation may need to be adjusted for poor utilization on NPN when fed with low quality forages.

Producers may be surprised to know the large differences in protein supplement needed to meet the cow's requirement depending on the quality of forage that makes up the majority of the diet. Below is a table of the pounds of 40% protein supplement needed daily for small-moderate-sized (1100 pound) beef cows in different stages of production and consuming differing quality of grass hays. (Table is adapted from Richard, Lalman, and McKinney; *Cattleman's Management Record Book.*)

Needed 40% protein supplement (lb/hd/day) to meet protein requirement of 1100 pound mature beef cow			
	Hay Protein Concentration (%)		
Stage of Production	4%	6%	8%
Mid Gestation, Dry	2.2	1.1	0
Late-Gestation, Dry	3.1	1.7	0
Early Lactation	4.7	3.3	1.5
Late Lactation	3.5	2.1	0.4

Larger cows and cows that produce above average milk production will consume more forage and need even more supplement to match their requirements. The table above describes the protein-only needs of the beef cow. Energy deficiency may occur and result in some weight and body condition loss. Energy needs will be increased if cows are already in thin body condition and must be improved before calving this spring. Also winter weather conditions can greatly increase energy needs. In many instances, the energy requirements can be met with lower protein supplements (for example 20% protein range supplements) fed at about twice the rate as noted for the 40% CP supplement in the table above.

In summary some costs cutting measures that every cattleman can apply include: 1) if you are fortunate enough to have adequate dry standing grass try to take advantage of it, 2) cows only need protein supplementation delivered every 3 to 6 days with no effect on cow and calf performance, 3) pricing protein on a cost per lb. of crude protein on a dry matter basis only involves a simple calculation and 4) the importance of getting your forage tested for protein. While you are at it you might as well test for nitrates if the forage is from the sorghum family, since fertility imbalance can also cause high nitrates.