COW/CALF CORNER

The Newsletter

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Herd rebuilding will be a slow process

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The latest USDA data provides some indication that herd expansion may be beginning but more clearly shows that herd rebuilding will be a long process and a slow one, at least initially. Not surprisingly, the July Cattle report shows estimates of herd inventories that are down in most all categories compared to the last report in 2012. Since no 2013 report is available for comparison, it is not clear whether inventories are higher or lower than last year for the various categories but it is likely that most are lower. However, it does seem that the beef cow herd is stabilizing and is likely only slightly lower than last year.

The July 1 estimate of beef replacement heifers was down from July 2012 despite the fact that January 1 estimates of beef replacement heifers increased each of the past three years. The ratio of the July 1 beef replacement heifers to the January inventory of replacement heifers is the lowest since the July estimates began in 1973. This ratio typically rises during herd expansion and decreases during liquidations. This indication of additional herd liquidation is somewhat in contrast to the heifers on feed in the July Cattle on Feed report which is down 4.6 percent from year earlier levels. The year over year decrease in July 1 heifers on feed is consistent with modest levels of initial herd expansion. Quarterly estimates of heifers on feed have posted year over year decreases for the past 8 quarters with an average decrease of 6.8 percent.

So far this year, heifer slaughter is down 7.9 percent; a significantly larger decrease than steer slaughter, which is down 2.9 percent for the year to date. Beef cow slaughter is down 16.4 percent so far this year compared to the same period last year. These decreases in female slaughter strongly suggest that herd expansion is beginning. Aggregate herd balance numbers suggest that the capacity for herd expansion is greater than what is observed thus far.

There are several factors that may be limiting herd expansion in these early stages. The record high feeder cattle prices that will eventually stimulate herd expansion may, in the short run, increase the temptation to sell heifers rather than retain them for breeding. This is particularly true for producers still recovering financially from drought and other economic difficulties. For some older producers who are considering retirement, current market prices may provide the incentive to sell out and exit the industry. While new producers will, in most cases, replace the older producers, there may be a lag in herd growth during the transition. Additionally, the record high prices that cattle sellers currently enjoy also imply high prices for breeding females that may be a deterrent to expansion, at least initially, for some producers. Regional factors may be moderating herd expansion as well. Much of the eastern half of the country has lost pasture and hay acreage as crop production has expanded in recent years and less herd rebuilding is expected in this area. In much of the Plains and Western regions, where proportionately more herd expansion is likely eventually, drought conditions persist in some areas and herd rebuilding may be moderated for several months to several years to allow recovery of pasture and range.

The biology of cattle production implies a strict limit on how fast cowherd expansion can take place. Herd expansion will start slow from the current low herd base under the best of circumstances. It appears that herd expansion is being further restricted at this time in some regions due to producer age and expectations; financial limitations; regional shifts in cow-calf production; continuing drought conditions; and recovering pasture/range conditions.

The "positive associative effect" of high protein supplements

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The eastern two-thirds of Oklahoma has substantial standing forage in many pastures as we go into late summer. As the day length shortens, plants become more mature and lower in protein content. However, the protein requirements for growth, milk production, and body weight maintenance of beef cattle do not decrease as the "dog days of summer" arrive.

The micro-organisms in the rumen of beef cows and replacement heifers require readily available protein to multiply and exist in large enough quantities to digest the cellulose in low quality roughages. Protein supplementation of low-quality, low protein forages results in a "***positive associative effect***". This "positive associative effect" occurs as supplemental protein available to the "bugs" in the rumen allows them to grow, multiply, and digest the forage more completely and more rapidly. Therefore the cow gets more out of the hay she consumes, she digests it more quickly and is ready to eat more hay in a shorter period of time. Data from Oklahoma State University illustrates this (Table 1). The prairie hay used in this study was less than 5% crude protein. When the ration was supplemented with 1.75 lbs of cottonseed meal, retention time of the forage was reduced 32% which resulted in an increase in feed intake of 27%. Because hay intake was increased, the animal has a better chance of meeting both the protein and energy requirement without supplementing other feeds. Because retention time was decreased, one could postulate the protein supplementation in this situation also increased digestibility of the hay.

Table 1. Effect of Cottonseed Meal Supplementation on Ruminal Retention Time and Intake of Low-Quality Prairie Hay

	Daily Supplement of Cottonseed Meal		
	None	**1.75 lb**	**Change**
Rumen Retention Time, Hr	74.9	56.5	-32%
Voluntary Daily Hay Intake, % of body wt.	1.69	2.15	+27%

As producers prepare their late summer, fall, and winter feed strategies, they can see the importance of providing enough protein in the diet of the cows to feed the "bugs" in the rumen. If the forage is low in protein (less than 8 % crude protein), a small amount of supplemental protein such as cottonseed meal, soybean meal, or one of the higher protein by-product feeds, could increase the amount and digestibility of the forage being fed. This strategy requires that ample forage is available to take advantage of the "positive associative effect". As the table above illustrates, properly supplemented cows or replacement heifers will voluntarily consume about 27% more forage if they were provided adequate protein. As long as enough forage is available, this is a positive effect of a small amount of protein supplement.