

# COW/CALF CORNER

The Newsletter

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## **Body condition score at calving is the key to young cow success**

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Research data sets have shown conclusively that young cows that calve in thin body condition but regain weight and condition going into the breeding season do not rebreed at the same rate as those that calve in good condition and maintain that condition into the breeding season. The following table from Missouri researchers illustrates the number of days between calving to the return to heat cycles depending on body condition at calving and body condition change after calving.

*Predicted number of days (d) from calving to first heat as affected by body condition score at calving and body condition score change after calving in two-year-old beef cows. (Body condition score scale: 1 = emaciated; 9 = obese) Source: Lalman, et al. 1997*

	<b>Body Condition Score Change in 90 Days After Calving</b>						
<b>Condition score at calving</b>	<b>-1</b>	<b>-.5</b>	<b>0</b>	<b>+.5</b>	<b>+1.0</b>	<b>+1.5</b>	<b>+2.0</b>
<b>BCS = 3</b>	<b>189 d</b>	<b>173 d</b>	<b>160 d</b>	<b>150 d</b>	<b>143 d</b>	<b>139 d</b>	<b>139 d</b>
<b>BCS = 4</b>	<b>161 d</b>	<b>145 d</b>	<b>131 d</b>	<b>121 d</b>	<b>115 d</b>	<b>111 d</b>	<b>111 d</b>
<b>BCS = 5</b>	<b>133 d</b>	<b>116 d</b>	<b>103 d</b>	<b>93 d</b>	<b>86 d</b>	<b>83 d</b>	<b>82 d</b>
<b>BCS = 5.5</b>	<b>118 d</b>	<b>102 d</b>	<b>89 d</b>	<b>79 d</b>	<b>72 d</b>	<b>69 d</b>	<b>66 d</b>

Notice that none of the averages for cows that calved in thin body condition were recycling in time to maintain a 12 month calving interval. Cows must be rebred by 85 days after calving to calve again at the same time next year. This data clearly points out that young cows that calve in thin body condition (BCS=3 or 4) cannot gain enough body condition after calving to achieve the same rebreeding performance as two-year old cows that calve in moderate body condition (BCS = 5.5) and maintain or lose only a slight amount of condition. The moral of this story is: “Young cows must be in good (BCS = 5.5 or better) body condition at calving time to return to estrus cycles soon enough after calving to maintain a 365 day calving interval.”

Oklahoma scientists used eighty-one Hereford and Angus x Hereford heifers to study the effects of body condition score at calving and post-calving nutrition on rebreeding rates at 90 and 120 days post-calving. Heifers were divided into two groups in November and allowed to lose body condition or maintain body condition until calving in February and March. Each of those groups was then re-divided to either gain weight and body condition post-calving or to maintain body condition post-calving. Figure 1 illustrates the change in body weight of heifers that calved in a body condition score greater than 5 or those that calved in a body condition score less than or equal to 4.9. The same pattern that has been illustrated in the other experiments is manifest clearly with these heifers. Thin heifers that were given ample opportunity to regain weight and body condition after calving actually weighed more and had greater body condition by eight weeks than heifers that had good body condition at calving and maintained their condition into and through the breeding season. However, the rebreeding performance (on the right side of the legend of the graph) was significantly lower for those that were thin (67%) at parturition compared to heifers that were in adequate body condition at calving and maintained condition through the breeding season (91%). Again post-calving increases in energy and therefore weight and body condition gave a modest improvement in rebreeding performance, but the increased expense was not adequately rewarded. The groups that were fed to "maintain" post-calving condition and weight received 4 lb of cottonseed meal supplement (41% Crude Protein; \$.175/lb) per day. The supplement cost for the 69 day feeding period was approximately \$48.30 per cow. The cows in the "gain" groups were fed 28 lb/day of a growing ration (12% CP; \$.12/lb) at a total supplement cost of \$231.84/cow. (2014 estimated feed prices were used in this discussion). Both groups had free choice access to grass hay (personal communication). The improvement in reproductive performance (67% pregnant vs 36% pregnant) of the thin two-year-old heifers may not be enough to offset the large investment in post-calving feed costs. Pre-calving feed inputs required to assure the heifers were in adequate body condition at calving would be substantially less than the \$231 per head that was spent on the thin heifers after calving.

*Figure 1. Post-calving body condition change of heifers with body condition >5 or <5 at calving and fed to gain or maintain weight. 120 day pregnancy rates (%) are indicated on the right side of the graph lines. Bell, et al. 1990*

Other data sets have shown conclusively that cows that calve in thin body condition but regain weight and condition going into the breeding season do not rebreed at the same rate as those that calve in good condition and maintain that condition into the breeding season. Make certain that the supplement program is adequate for your young cows to be in good body condition this spring.

## **Pondering 2015 Cattle Markets**

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

Cattle and beef markets are finishing 2014 at or near record levels, which is the way the year began...at or near record levels. However the advance in prices has been much more dramatic in 2014. Retail beef prices are up 15 to 20 percent, following a 5 to 6 percent year over year increase in 2013. Boxed beef wholesale values are up about 25 percent from one year ago, following a 4 to 8 percent increase in 2013. Fed cattle prices are up 28 percent after a 5 percent increase in 2013. Feeder cattle (750-800 lb. steer) prices are roughly 43 percent higher than one year ago after climbing 13 percent in 2013. Most dramatic of all, (450-500 lb. steer) calf prices are up 53 percent this year on top of a 30 percent increase in 2013.

Market conditions will be generally the same in 2015 with tight supplies continuing to be the major driver of cattle and beef markets. Beef production will decrease again in 2015 but considerably less than the 6 percent year over year decrease in 2014. Feeder cattle supplies will be tighter in 2015, at least until very late in the year. The smaller 2014 calf crop and continued heifer retention implies decreased available feeder cattle supplies, despite increased feeder cattle imports from Canada and Mexico in 2014. Cattle imports are likely to moderate in 2015, further

squeezing U.S. feeder cattle supplies. The beef trade picture can be viewed as negative to market conditions, with high U.S. beef prices and a stronger dollar pushing beef imports up and exports down in 2015. However, in a relative sense, both may be viewed as positive. Beef exports have remained strong in 2014 and are expected to show only a modest decrease in 2015. U.S. imports of beef are up sharply in 2014 and will likely increase modestly again in 2015. However, Australian beef production, which has been increasing beef production due to drought liquidation the past two years, is expected to decrease in 2015 on lower cattle inventories and improved drought conditions. Australia accounted for nearly 70 percent of the year over increase in beef imports in 2014; a pace that is unlikely to continue through 2015.

Most of the factors that could moderate market conditions despite stronger supply fundamentals relate to the demand side. U.S. beef demand remains the principal concern regarding the ability for U.S. cattle and beef prices to push even higher in 2015. Despite a sharp increase in retail beef prices in 2014, not all the current wholesale beef price pressure is reflected in retail prices. Thus, even if additional supply declines were not expected, retail prices will face additional upward pressure in 2015. More price pressure is expected from calf prices upward to retail adding additional pressure to margins at the feedlot, packer and retail levels. Feedlots already face sharply higher breakevens in early 2015 due to high feeder cattle prices. Retail beef prices will likely increase in 2015 but there is considerable uncertainty if those price adjustments will be large enough and quick enough to prevent significant squeezing of industry margins. Beef demand will face additional headwinds from larger pork and poultry supplies which add to the challenge of raising retail beef prices. Marginal drought conditions that could redevelop is the principal factor that could affect the supply side of the industry. Reemerging drought could slow down herd expansion, resulting in moderation of short term supply tightness at the expense of longer term tight supply conditions. Though no feed market issues are anticipated at this time, there is always the potential for weather to have a negative impact on feed production in 2015.

Cattle and beef markets will start 2015 with record or near record prices and carry them through the year. I see little risk of any major market break and annual average cattle and beef prices will be higher than 2014. That said, it may be hard to extend the impressive market gains of 2014 much higher. With less of an uptrend in markets generally, cattle and beef markets may follow more of a seasonal pattern in 2015. Seasonal price peaks that exceed 2014 records are possible, perhaps even likely, but may be harder to sustain. All in all, I expect 2015 to be more of a sideways market, albeit with prices close to, if not higher, than record levels.

## **We wish everyone a happy and prosperous New Year!**

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