

Management

What are the Factors that Influence Weaning Weights of Calves?

By John Paterson, Executive Director of Producer Education



Calves are usually weaned when they are between 7 and 8 months of age. However, the ideal time should probably depend more on the body condition of the cow and not the age of the calf. One recommendation has been to wean calves before the cow's body condition score drops below a 4.

In a study by Jack Whittier, PhD of Colorado State University, he described several reasons for the traditional weaning age of 7 to 8 months: 1) for spring calving cows the decline in forage quantity and quality in the fall, 2) the possibility of early winter storms, 3) the beef cow's lactation curve has declined substantially, and 4) fall weaning gives the cow time to prepare for her next calf in the spring. Unacceptable weaned calf performance may be the result of inferior genetics, poor dam milk production, calf illness, or a combination of these factors. Environmental effects such as sex, age of dam, season of birth and creep feeding influence weaning weights.

The National Health and Monitoring System (NHAMS) routinely conducts national surveys to determine production practices of beef cattle producers. The emphasis areas of the last survey were to determine the numerous management

practices utilized by producers.

One specific area of interest was to determine the management factors cattlemen consider when weaning calves. Fifty four percent of producers indicated that the number one reason to wean

calves was calf age and weight, followed by tradition (11 percent). Other factors considered were physical condition of the cow (9 percent), forage availability (8 percent) and other factors (6 percent).

Sixty two percent of the calves were weaned between 170 and 230 days of age and replacement heifer calves had an average weaning weight of 532 lbs while bull and steer calves had an average weaning weight of 559 lbs. Always remember that the lower the calf stress level during the weaning process, the better performance will be.

Time of weaning can be altered to manipulate cow body condition in order to maintain high reproductive rates and reduce winter feed requirements. Cows nursing calves for a longer or shorter period of time than is traditional can decrease or increase their body condition. Often when a cow is declining in body condition the calf is not growing at optimal efficiency. Age of the calf at weaning is affected by both the date of birth and the date of weaning. Changing either the calving date or the weaning date can have an influence on cow body condition.

In certain situations when forage conditions are favorable, cows may actually be gaining weight late in lactation. And in some cases calves may also be gaining body weight. The relative performance depends on forage conditions which will depend on year and forage management. The efficient utilization of forages by beef cattle is essential for optimum economic production in a cow-calf operation.

Francis M. Rouquette, PhD of Texas A&M conducted a study that showed forage quantity as determined by stocking rate can also have a significant effect on cow and calf performance. Forage availability is one of the primary variables that can influence weaning weights. According to the Texas A&M research, season of birth and stocking rate had a greater effect on weaning weight of steers than of heifers. Fall calving in the humid southeastern United States resulted in heavier calves at weaning compared with winter or spring calving.

Results of a 14 year study from Texas A&M showed that one of the greatest determinants of profitability in a cow-calf operation was reproductive rate. Open (non-pregnant) cows are a drain on resources. They consume feed, forage, and other resources without producing a marketable calf to contribute to expense payments. Cows that are open at the end of the breeding season should be at the top of the cull list, research from Mississippi State University conducted by Jane Parish, PhD shows. Findings from research on an Oklahoma State University fall calving cowherd showed that producers could benefit from matching weaning date to cow age. In their research it was more advantageous to delay weaning of calves born to dams 4 years or older (300 days) while maintaining a more normal/earlier weaning date for dams 3 years or younger at the time of calving (210 days). Late weaning had no detrimental effects on the performance of mature cows.

When you are determining the efficiency of your ranch's production, keep in mind that factors such as weaning weight/number of cows exposed to the bull, calving percentage, weaning percentage and heifer replacement rates are good estimates for your yearly score card of profitability. 🐾



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