



Cow Camp Chatter

by **RON TORELL**, *long-standing educator and advocate of agriculture*

The second trimester: Opportunity!

Opportunity can best describe the second trimester of a cow's pregnancy. Of the four biological periods of the beef cow's cycle, the second trimester is the least demanding of nutrients. This means that the second trimester of pregnancy is an opportune time to improve the body condition of cows through the use of high-roughage standing forage. By stockpiling body condition, we are lowering the winter feeding cost and setting the cow up to succeed in next year's production cycle. This is a win-win situation.

At the beginning of the second trimester (94 days) the fetus will weigh from 3 to 6 ounces (oz.) and be 5 to 6 inches (in.) in length, approximately the size of a rat. Both uterine horns will be swollen and fluid-filled at approximately 4-5 in. in diameter. Cotyledons can be palpated $\frac{3}{4}$ in.-1 in. across. The uterine artery is $\frac{1}{8}$ to $\frac{3}{16}$ in. in diameter. By the end of the second trimester (188 days), the fetus will weigh from 20 lb. to 25 lb. The nutritional requirements of the fetus

to this point have been relatively small.

The second trimester begins on day 94 of pregnancy and extends to day 188. For March- and April-calving cows, the second trimester could begin as early as Sept. 1 to as late as Nov. 1. A short breeding period (60 days or less) places more of the cattle in a herd at the same stage of production at the same time. This simplifies management. Having all of the cattle in the second trimester of pregnancy at the same time makes it easier

to stockpile body condition on a herd basis rather than on an individual basis. This stockpiling of body condition can be done with high-roughage, low-cost feed, provided lactation has ceased and

all cows are in this production stage of low nutritional demand.

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Cows that are entering Day 94 of pregnancy are nursing calves that are 177 days of age, provided the cow re-bred 83 days postpartum. The cow has lactated for the entire 177-day period, with peak lactation occurring during the 94-day postpartum period. At 177 days of age, the calf has a fully functional rumen and is capable of growth without the aid of its mother. Weaning can and should occur over the next 30 days, particularly if forage conditions are poor and/or body condition of the cow is declining.

Remember the nutrient partitioning order of the cow? The cow takes care of her maintenance requirements first, followed by growth, milk production, and lastly reproduction. It is this order of nutrient partitioning

that makes the second trimester of pregnancy such an opportune time to stockpile body condition. The cow's maintenance requirements are at an annual low. Mature cows have no growth requirements, but young cows do. If the calf is weaned, there are no lactation requirements. Nutrient requirements for fetal development are minimal during the second trimester. Take advantage of this situation. Wean the calf and stockpile body condition during this period of low nutrient demand.

Under restricted nutritional conditions, such as those found on desert rangelands, the smaller-framed, lower-milking, easy-fleshing cow is favored. If your cow herd is made up of primarily larger-framed and heavier-milking cows than actually fit your feed resources, it is imperative to take advantage of the management opportunities that the second trimester of pregnancy has to offer. On the opposite extreme, if nutrition is abundant, as would be on

irrigated pasture, body condition and reproduction are more easily sustained. Weight production on the calf is more important, and these higher levels of frame size and milk may be economically tolerated. Producing milk from grass and then converting that milk to calf weight is inefficient, particularly as the calf gets older and as feed resources decline in value. Under these conditions, milk and, ultimately, calf weight is often at the expense of cow body condition, which, in turn, is at the expense of next year's production levels.

Research has shown that cows producing the most milk continue to have higher energy requirements even after lactation has ceased. This is mainly due to an increase in the size of the metabolic machine or organ size required to process the increased energy for milk. In addition, larger-framed cows have higher maintenance requirements even during the second trimester of pregnancy. As a long-term aid, selecting a moderate-framed, lower-milking cow should be

considered, particularly in areas where cattle will be grazed on lower-quality and limited feeds.

The second trimester of pregnancy is the period of a cow's annual biological cycle that offers ranch managers an economical means to prepare for her production in the years to come. Too often they do not recognize or act on this opportunity. Instead they choose to let cows slip during this period of low nutrient demand as a money-saving effort. Long term, the opposite often occurs.

That's enough for this month. As always, if you would like to discuss this article or simply want to talk cows, do not hesitate to contact me at 775-385-7665 or send an e-mail to rtbulls@frontier.com.



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