

Post Rock Extension District Column

By Blaire Todd

K-State Research and Extension-Post Rock District

Livestock Production Agent

Planning for the Third Trimester

The third trimester of pregnancy is a crucial period because of the rapid growth the fetus undergoes and because it is our opportunity to improve cow body condition prior to calving if needed. It is easy to forget those things when we can't see the growing fetus and a growing winter coat may be deceptive when it comes to body condition.

As a reminder, if you began breeding on May 15, the third trimester will begin on November 20th, for breeding beginning on June 1, the third trimester begins December 7th, and for a start date of June 15 for breeding, the third trimester will begin December 21st.

Fetal growth is exponential during this time with blood flow increasing 3 to 4-fold from mid to late gestation. In the last 60 days, 75% of growth occurs, or 60 pounds of an 80-pound birth weight. The total weight of the pregnancy with fetus, fluids and membranes at calving is around 100-150 pounds total.

Early in pregnancy, the placenta, organs and limbs develop. Muscle fiber growth starts early as well, and the number of fibers is largely determined by the 7th month of pregnancy. The size of muscle fibers and formation of fat cells that produce marbling occur later in gestation and nutrient restriction at this time can reduce the size of muscle fibers and formation of fat cells that produce marbling. The impacts on muscle fiber size have been demonstrated in heavier calf birth weights (no change in calving difficulty), weaning weights, and carcass weights. Additional marbling is not as consistently evident across studies however by harvest time many additional factors may come into play.

As little as 1 pound of a 28% protein supplement per day during late gestation for cows grazing native range has been shown to be beneficial to calf weights and heifer performance. This level of restriction in the un-supplemented cows was not enough to reduce pregnancy rates compared to supplemented cows.

Feed costs are high this year, but strategic supplementation can pay off in calf weaning weight. Pay particular attention to first calf heifers that are growing themselves in addition to the fetus.

Thanks to Sandy Johnson, Extension Beef Specialist, for sharing information related to preparing cows for their third trimester of pregnancy and for further information, contact me at any Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne, or Smith Center.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Blaire may be contacted at blairet@ksu.edu or by calling Beloit 738-3597, Smith Center 282-6823, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us on Facebook at "Post Rock Extension" along with our website www.postrock.k-state.edu.