

FOR IMMEDIATE RELEASE

For more information contact, Wendie Powell
Livestock Production Agent, Wildcat Extension District
wendiepowell@ksu.edu, (620) 784-5337

The Un-Obvious Important Date

The third trimester of pregnancy is a crucial stage; the fetus is growing rapidly and it's the last chance to improve body condition prior to birthing. The start of this critical stage is easily missed; the growth of the fetus isn't totally obvious, and livestock are putting on their winter coat this time of year, making body condition deceptive.

The third trimester start date is based on the date the female was exposed to the herd sire. So, if a bull was put in with cows on May 1, the critical date could be November 6, depending on actual conception, based on the 283-day gestation period of cattle. Sheep and goats have a 150-day gestation period, and swine gestate for around 114 days (about 3 and a half months). The critical date can be nailed down further by pregnancy checking, either by palpation or ultrasound.

Fetal growth is exponential during the third trimester, with blood flow increasing three to four times from mid to late gestation. In the final third of pregnancy, 75% of the fetal growth occurs, which is 60 pounds of an 80-pound birth weight. The total weight of a bovine pregnancy with fetus, fluids and membranes at calving ranges from 100-150 pounds total!

Early in pregnancy, the placenta, organs and limbs develop. Muscle fiber growth starts early as well, the *number* of fibers is largely determined by the seventh month of pregnancy in cattle. The *size* of muscle fibers and the formation of fat cells that produce marbling occur later in gestation. Nutrient restriction in late pregnancy can reduce the size of muscle fibers and impair formation of fat cells that produce marbling. While there has been no impact shown on birthing difficulty with increased muscle fiber size, these newborns do weigh more and will continue to weigh heavier throughout their life.

As little as one 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. In un-supplemented cows, pregnancy rates were not reduced due to nutrition restriction.

Not only is dam nutrition important for fetal development, but also for nurturing the newborn upon its arrival into the world. Research shows that mothers in good body condition have considerably higher valued colostrum. And the energy consumed by the mother will affect the vigor of the newborn.

In goat herds, pregnancy toxemia is a condition to be avoided. This occurs when the pregnant doe uses more nutrients than she consumes, drawing heavily on body reserves. In general, energy requirements for a doe carrying a single kid increases by 50% over her maintenance requirements, while twins increase her needs 75%.

While feed costs are high, strategic supplementation will pay off in pounds of weaned livestock. Pay particular attention to first time mothers that are growing themselves in addition to the fetus.

To learn more about building rations for your herd, contact Wendie Powell, Livestock Production Agent, (620) 784-5337, wendiepowell@ksu.edu.

###

Kansas State University Agricultural Experiment Station and Cooperative Extension Service
K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of K-State Research and Extension, Kansas State University, County Extension Councils, Extension Districts.