

Gestation Length: Calves Arrive Sooner Than They Used To

Justin Rhinehart- UT Extension

What is the gestation length of a cow? This question usually gets the answer of “it averages 283 days.” A better answer is “it can range from about 265 to as much as 295 days.” For breeds that have focused on low birthweight genetics for several generations, the average gestation length has shortened. But, there are several other factors that can shorten or lengthen gestation notwithstanding genetics.

Before considering those factors, it is important to learn what actually triggers the calving process. Since the calf has to be fully developed and ready to thrive as soon as it is borne, a mechanism is built in to make sure the cow does not give birth too soon. One of the last systems to fully develop in a calf is the system that produces stress hormones (cortisol is one of those). It is believed that the fetus starts to run out of room in the cow’s uterus toward the end of the pregnancy. So, once the stress response system is fully developed, it releases those stress hormones that lead to many other changes that culminate in birth of the calf.

There are several factors known to affect the length of gestation in cattle. One of those is sex of the calf. On average, bull calves arrive later than heifer calves for cows bred on the same day. Calving season can also affect the length of pregnancies. Calves born in a conventional fall calving season (late August – October) generally arrive sooner than the same genetics would in a conventional spring (January – March) calving season. Some breeds and breed types are also known to have shorter or longer pregnancies than the overall average of 283 days.

With those (and several other) factors being the same, genetics of the sire and dam also influence the length of gestation. Cattlemen have selected for low birthweight genetics for many generations now. With that, has come an associated selection for shorter gestation. If a bull sires pregnancies that are calved just a few days shorter, it can dramatically reduce the birthweight and improve calving ease. Fetal calves are gaining between 1 to 1.5 pounds per day at the end of a pregnancy. So, shortening that process to 276 days can result in as much as 10 pounds less birthweight compared to 283 days.

Bulls were actually selected for siring shorter pregnancies before calving ease was the focus. In an interesting article written by Heather Smith Thomas and published in the January 2014 edition of “Hereford World”, Buddy Westphal describes his search for bulls that sire shorter pregnancies. In that case, he was interested in shorter gestation so his cows would have longer to breed back and have a calf the same time the next year. He noted that when he was able to find bulls - from a Canadian research trial - that shortened gestation length, it also took care of most of his calving difficulties.

What is the moral of this story? Don’t let the start of calving season catch you off guard. For herds that have selected for low birthweight for several breeding seasons and retained replacement heifers with those genetics, it is not uncommon for calves to drop as early as two weeks before the calculated due dates. Using “curvebender” bulls (low birthweight but aggressive growth to weaning and yearling) through artificial insemination can result in calves being born three weeks earlier than the calculated due date from AI. In fact, many cattlemen report having all their calves from timed AI on the ground before the 283 day mark.

These early calves are usually fully developed and thrive even at an extremely low birthweight. But, make sure to account for this on the calendar so someone will be ready to tag, weigh and process calves

that get here sooner than expected; especially during cold and damp weather. More than that, think about whether low birthweight genetics are a primary selection criteria for your goals. Certainly, having a live calf unassisted is extremely important. But, balancing that with other criteria like growth, reproductive performance and value to the feeder and packer is also important for optimizing economic efficiency.