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Value of Early Pregnancy Detection

As I set down to look at my annual “pull the bulls” date on the calendar, it got me thinking about a timely topic to write about. Every operation has a different timeline for breeding, calving, weaning, marketing... name the subject; but one thing that can be useful sooner rather than later is to know which animals are bred and when in the calving season they are expected to calve. Knowing this information early can help direct management decisions.

There are a number of reasons ranging from shortage of forage resources to marketing opportunities that proves the value in knowing when a cow is pregnant. That information can be used to identify early bred replacements or open females to remove from pasture, in order to extend the grazing season. Heifers confirmed pregnant to an AI sire likely can bring premiums. A group of yearling heifers pregnant with heifer calves would be expected to have less calving difficulty and may be worth more than those carrying males. Looking at the cull side, the cull cow market historically declines the deeper into fall aligning with the common weaning times of spring calving herds. The more cows being culled, the bigger the impact of timely marketing. Whatever the reason, you have to check to know what the status of the females and can then make decisions with that information.

Rectal palpation is the most commonly available tool for pregnancy determination. Experienced technicians can be comfortable with distinguishing 35 to 40-day pregnancies. In the hands of a trained person, a fairly high degree of accuracy in stage of pregnancy can be determined up until 100 -120 days of gestation, before the uterus descends over the pelvic rim. It is becoming more common place for bovine practitioners to offer ultrasound detection. Embryos can be identified as early as 25 to 28 days of age, but 30 days makes a more practical lower age limit. Fetal sexing requires additional experience with ultrasound to gain higher accuracy, but is a benefit to this method. The earliest time to fetal sex is around 55 days but due to variation in development, a time period of 60 to 100 days is generally targeted.

Commercial blood tests are also available to determine pregnancy status. The tests detect one of a number of pregnancy specific proteins produced by the placenta. Depending on which protein and test provider, earliest detection date varies from 28 to 30 days of gestation and proteins remain in the system up to 75 to 90 days after calving. A disadvantage of the blood test is that since the proteins remain in the animal’s body after any fetal loss occurs, a positive test indicates both if the female is OR was pregnant and could now be open.

Some embryonic and fetal loss is normally occurring, from 1 to 2% by the second trimester to term is considered normal. Mostly this loss is seen before day 30, but some cows pregnant at 30 days will not be pregnant at day 60. Although early pregnancy loss is not uncommon, and is generally not caused by the process of pregnancy checking, it does mean if performed relatively early it may need to be repeated.

Your local veterinarian can discuss timing and options that best fit your production situation and goals. Stage of pregnancy can be very valuable information when making decisions related to pasture management, adjusting winter feeding plans and trying to take advantage of market opportunities. Processing cattle through a working facility in the heat of summer, may not be high on your wish list of things to do, but giving pregnancy detection, especially early detection, might be worth considering. Your business will be in a better position to adapt to variation in weather and markets with detailed information on pregnancy status and stage of fetal development.