

What special care, if any, do you give your replacement females when they are pregnant? Up to this point in our “Replacement Female” series, we have discussed various management recommendations for the virgin replacement female. Though this is beneficial information, it is equally important to continue to properly care for that female throughout every stage of production- including gestation. This week we will specifically focus on the impact that nutrition can play in the female during her pregnancy, and how it impacts the productivity of both the female, and her calf.

Two weeks ago we stated the importance of making sure that your replacement females are meeting their nutritional requirements. This is a critical step in producing cattle that will be profitable in your operation. If an animal is deficient in a particular area, it will not perform as efficiently as an animal that is receiving adequate nutrition. If you expect your females to be efficient and productive in your operation it is critical that you help them meet their nutritional requirements. Studies show that females who did not meet their nutritional requirements had lower fertility than those whose requirements were met. More specifically, adequately fed heifers (those whose requirements were met) reached puberty 19 days sooner than females that were restricted (those that did not meet their requirements). Further, pre partum nutrient restriction can lead to a delayed onset of estrus after calving, and may result in lower milk production.

It may be tempting for some producers to over supplement their cattle to be **sure** that their requirements are met. Although this may seem to be a safe form of insurance, it can prove to be just as detrimental as under supplementing. Over supplementing your cattle so that they receive more nutrients than required may create cattle that are overweight, which potentially creates a new set of issues. Similar to underweight cattle, overweight females are more likely to be infertile. If an overweight female successfully conceives, she may still have problems ahead of her, as she is likely to experience dystocia at calving due to the excess fat build up in her reproductive tract and pelvis area. Dystocia of replacement females may be reduced by keeping a close watch on the nutrient intake of the cattle. Cattle bred to calve in April and May are the most susceptible to dystocia due to the increase in forage quality and quantity at that time of year. To reduce instances of dystocia in your herd, do your best to have your cattle calved out before these months of increased nutrition so that over supplementation does not occur.

A good method to measure whether or not the nutritional requirements are being met is to look at the body condition of the cattle. By evaluating the female’s Body Condition Score (BCS), a producer can quickly gauge whether or not more nutrients should be provided to the female. Research shows that the most efficient, and therefore “ideal”, BCS is a score of 4, 5, or 6. Often, cattle scoring lower or higher than this are less productive. Females that are in this moderate range often reach post partum estrus in 60 days or less compared to poorly conditioned females that came in heat an average of 78-110 days after calving. That is, it often takes fewer days for a properly conditioned female to breed compared to one that is under or over conditioned. Though each female is different and may not require the same amount of nutrients as her herd mates, a BCS 5 in each female is a good rule of thumb to maintain. This, on average, can help achieve goals of speeding up how soon cows come in heat after calving, maximizes pregnancy rate, and increases the net calf crop which in turn increases income for the producer.

Maternal nutrition is not something that simply benefits or hinders the cow and stops there. The nutrition received before, during, and after pregnancy has the power to alter not only the dam's performance, but the performance of her offspring as well. Some of the many factors that are affected by maternal nutrition include birth weight, health, growth, reproductive ability, carcass weight, and carcass quality. Early gestation nutrition restriction affects placental development, and late gestation restriction affects the development of organ systems and the nutritional uptake by tissues that is needed for growth and reproduction. Further, the lactating performance of the female is critical in determining calf immunity. If the female does not properly lactate the calf may not receive the immunity needed to fight off potential health issues throughout its life.

Though a large amount of expectation is placed on the female to provide proper nutrients to her calf, **all** of the responsibility for this to actually take place falls on the producer's shoulders. It is his job to ensure that he is providing all of the nutrients his cows need so that they can pass those nutrients to their offspring. Regardless of the economy or other situations that may arise, there is never a good time to short-change the cows nutritionally. Provide your cattle with the nutrition they require so that they can perform at their best, producing more income for you in return.

Thanks,

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