

Calving First Calf Heifers

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What is the optimum pre-partum weight and condition score for first calf heifers?

Many calving problems can be eliminated if heifers are of adequate size. Their weight at first calving should be approximately 85 to 90 percent of their expected mature weight.

Body condition at calving is the single most important factor controlling when a beef heifer will cycle after calving. Prepartum body condition score correlates with several factors, such as postpartum interval, services per conception, calving interval, milk production, weaning weight, calving difficulty and calf survival. Heifers should have a body condition of 5-6 at calving through breeding to assure optimal reproductive performance. Animals with excess body condition (>7) have lower reproductive performance and more calving difficulty than animals in moderate body condition (5-6). Body condition score is generally a reflection of nutritional management. However, disease and parasitism can contribute to lower body condition scores even if apparent nutrient requirements are met. A sound herd health program is an essential part of any reproductive management system.

What special management strategies should I use for first calf heifers?

Properly developed and managed beef heifers generally have a 20- to 30-day longer postpartum interval than older cows. If you breed virgin heifers 20 to 30 days earlier than the cow herd, the heifers will have additional time to return to estrus and rebreed with the older cows the next year.

It is important to manage these heifers separately for two reasons: Earlier calving will likely mean that pastures are not available as soon, and you'll need to supply additional nutrients. Also, nutrient requirements (% of ration) are higher for first calf heifers than for mature cows. Breeding heifers early will be of no benefit if they are not properly managed after calving.

What feed and management plan will assure acceptable post-partum intervals and lifetime productivity of first calf heifers?

Nutritional demands increase greatly in late gestation and even more in early lactation. Reproduction has low priority among partitioning of nutrients and consequently, heifers in thin body condition often don't rebreed.

The plane of nutrition during the last 50 to 60 days before calving has a profound effect on postpartum interval. Positive energy balance postpartum is essential for prompt rebreeding of heifers that calve in thin condition. Feeding a balanced ration the last trimester of pregnancy will decrease calving difficulty. Heifers fed diets deficient in energy or protein the last trimester not only experience more calving difficulty, but breed back later in the breeding season, have increased calf sickness, death and lower calf weaning weights. Use caution when feeding excessive amounts of nutrients before or after calving. Overfeeding protein during the breeding season and early gestation, particularly if the rumen receives an inadequate supply of energy, may lead to decreased fertility. The combination of high levels of degradable protein and low energy concentrations in early-season grasses may contribute to lower fertility rates in females placed on such pastures near the time of breeding.

What unique management procedures are used with calves of heifers vs. older cows?

Heifers obviously experience more calving difficulty than do mature cows, and calves born from a difficult birth require special attention. Calves born from a difficult birth have lower heat production, take longer to stand and nurse, and may have a compromised immune system, so it is essential that these calves receive colostrum in a timely manner.

Also, heifers that experience calving difficulty will take longer to cycle, so it is important to minimize calving difficulty in your breeding herd. When obstetrical assistance is needed, the time of intervention also affects cyclicity. Dams given early assistance have a reduction in postpartum interval, a higher percentage in estrus

at the beginning of the breeding season, require fewer services per conception, an increased fall pregnancy rate and heavier calves at weaning. Therefore, early assistance, when needed, is important to assure heifers return to estrus as soon as possible.