

Calving Season Preparation

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The calving season is approaching for many beef cattle producers. Mating choices such as the breed and genetic potential of the bull that was purchased, AI sire selections, or heifers that were raised or purchased will reveal their worth to each individual producer. Calving season is the most anticipated and most rewarding time of the year, while it is also the most stressful and most frustrating period of the production cycle of a cow.

The obvious financial losses related to calving difficulty are due to calves or cows that die at or soon after calving. Less noticeable losses are due to delayed rebreeding, more open females, an extended calving season and increased labor costs. While occasional dystocia is almost completely unavoidable, cattlemen can minimize dystocia through proper management. Control of both genetics and environment (nutrition) is necessary to minimize dystocia.

Factors affecting the occurrence of calving difficulties (dystocia) can be grouped into two classifications: size and shape of the calf and the ability of the dam to give birth. Most of the decisions that affect the size or shape of the calf were made prior to the breeding season, i.e. sire selections, genetics of cow or calf. Factors which determine the cow's ability to deliver a healthy calf and sustain that calf can be manipulated to some degree.

Proper nutritional management is vital to a successful calving season. Cows should enter the calving season with a body condition score of 5 and heifer should have a 5.5 – 6 body condition score for optimal reproductive efficiency in the subsequent breeding season. January or February calving herds should have an additional 0.5 body condition score.

Some producers mistakenly believe that reducing nutrient intake prior to calving will reduce calf birth weight and subsequently reduce the incidence of dystocia. Low planes of nutrition may decrease birth weight, however, calving difficulty typically increases with this practice since the cow tends to be weaker. Calves born to cows on a low plane of nutrition take significantly longer to nurse than calves born to cows on a maintenance or high plane of nutrition. The longer the calf takes to nurse decreases the likelihood that colostrum absorption will be adequate to protect the calf from disease. Lower levels of nutrition will greatly reduce the quantity and quality of colostrum which will also contribute to an increase in death loss from disease.

Proper energy and protein levels are important for cows to maintain or increase body condition. Cows should receive a balanced ration with adequate energy. Research at USU indicates that reproductive efficiency was greater in cows receiving 2 pounds of protein daily for two months prior to calving.

Adequate vitamin A is necessary to ensure that calves are vigorous and healthy at birth. Green, leafy forages and good quality green hays provide adequate vitamin A. Poor quality forages, crop residues, and weathered dormant grasses are deficient in vitamin A. Supplemental vitamin A can be given through fortified feeds, mineral mixes, or injection. Deficiencies of vitamin A will result in weak, blind or stillborn calves, as well as respiratory problems, poor reproduction, and poor gain. Vitamin E, selenium, zinc, and copper are also important to both the cow and the gestating calf.

Colostrum contains antibodies or immunoglobulins necessary to provide the calf protection from disease. Colostrum intake is critical for the newborn calf. The calf must rely on colostrum from the cow until its own immune system is totally functional. For colostrum to be most effective, the calf should receive 1 quart within six hours after birth and a total of 2 to 3 quarts within 12 hours of birth. After this time the gut begins to "close" and it becomes more difficult for the calf to absorb the antibodies found in the colostrum.

The use of colostrum from other cows or stored colostrum is sometimes necessary to ensure that each calf receives adequate colostrum. For optimum results, colostrum should be collected from cows in the same herd within 24 hours of calving and fed fresh. Colostrum can be collected at calving and stored frozen for use at a later date. To facilitate storage and thawing, store colostrum in Ziploc[®] bags or Serving Savers[®]. The bags or containers will store well in individual "servings" of 1 or 2 quarts.

Correct thawing is important to prevent colostrum from being damaged. Colostrum should be thawed slowly, either by placing frozen colostrum and its container in warm water (110°F) and stir every five minutes. To thaw colostrum in a microwave oven set the oven at no more than 60 percent power for gentle thawing. Agitate or stir the colostrum frequently to assure even thawing and warming. This is important since many microwaves do not heat material evenly. With either method, warm the colostrum to 104°F to 110°F. Colostrum should not be thawed and refrozen.

Consult with your veterinarian about a calving vaccination program. As previously mentioned, colostrum is the single most important factor in preventing disease in the very young calf. A good vaccination program utilizes the cow's immune system (via colostrum) to protect the calf. Cows should be vaccinated approximately four weeks prior to the anticipated calving date and then again two weeks prior to calving date. This allows the cow's immune system to produce the antibodies needed by the calf. Different vaccines have different requirements to ensure their effectiveness, so read and follow label directions carefully.