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AVOIDING CALVING PROBLEMS

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Beef heifers experience calving problems, or dystocia, more frequently than do mature cows. Dystocia is characterized by prolonged or difficult labor caused by heavy birth weight of the calf and/or small pelvic area of the dam. Death of these calves, and sometimes their dams, reduce the calf crop and potential profits. It also contributes to reproductive failure through lower rebreeding rates in cows experiencing dystocia.

Causes of Dystocia

Several factors contribute to dystocia, but fortunately most of them can be overcome through good management practices. Proper selection and management of replacement heifers aid in the reduction of dystocia. Small, underdeveloped heifers generally experience dystocia which is attributed to their small pelvic openings. Larger, heavier heifers have larger pelvic openings and consequently, fewer calving problems. To ensure proper growth (1.25 to 1.75 pounds of gain per day), select heavy heifers and feed them.

Research indicates feed levels prior to calving do not influence dystocia as much as once thought. Experiments show the need for balanced rations during gestation because they contribute to proper growth. Starving calving difficulty out of a herd is not possible. Low feed levels prior to calving have not reduced calving difficulty; however, it does reduce body condition at calving which is proven to reduce subsequent rebreeding rates.

Mature cows generally do not have dystocia unless improper calf posture (turned head or feet, breech presentation) arises. To avoid the age factor, many producers have tried breeding their replacement heifers to calve at three years of age rather than at two. This helps, but never totally eliminates their problems and is not recommended because it may reduce the cow's total lifetime productivity.

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Improper calf posture during delivery can cause calving problems, but these can be corrected by providing assistance at birth. Calf posture can change at any time for undetermined reasons, even during the very early period of delivery. Calf posture cannot be influenced except during delivery.

A common belief is that exercise for the dam during gestation is needed to reduce calving difficulty. An experiment in which heifers were forced to move and travel during gestation revealed that no advantage was gained through exercise. Without further testing it can be concluded that exercise does not influence the incidence of dystocia.

The primary cause of calving problems is heavy birth weight. As birth weight increases, so does the intensity of the problem. When calves with heavy birth weights are born to heifers with small pelvic openings, the incidence of dystocia is certain to increase.

Causes of Heavy Birth Weight

Three factors which contribute to birth weight are sex of the calf (male calves are heavier), nutrition level of the dam during gestation and the effect of the sire. Obviously, sex of the calf cannot be controlled easily. Methods are currently being developed in the embryo transfer industry, not for the purpose of controlling the incidence of dystocia, but to offer the purebred breeder a choice of gender in the calf crop as an aid in increasing marketing options. Although the dam's nutrition level during gestation can influence birth weight, attempts to influence the incidence of dystocia through nutritional change have been futile.

The easiest and perhaps the most effective way to influence birth weight, and consequently reduce the incidence of dystocia, is to choose a bull known to sire calves with light birth weights. Mating these bulls to properly selected and developed heifers eliminates calving problems almost entirely with the exception of those associated with improper calf posture at delivery. Because the incidence of improper posture is low, using sire selection should effectively reduce calving problems.

Finding the Desired Bull

Some breeds have developed the reputation of being difficult calvers which is unfortunate because within every breed there are "easy calving" and "hard calving" bulls. Breeds intensely selected for growth without regard to calving ease have a higher percentage of bulls that are "hard calvers". This doesn't mean these breeds do not have any easy calving bulls nor is it warranted to suggest a breed is either a hard-calving or easy-calving breed. Crossing bulls of a breed with light mature weights to females of a breed with heavy mature weights may reduce the incidence of dystocia, but random mating of that same breed of bulls to females of the same breed may or may not increase the incidence of dystocia. Finding a sire, within a given breed, which is virtually assured of being an easy calver is possible through a good set of progeny records. A record program is essential to indentifying the easy calving bulls. Some breed associations stress record keeping programs which make the task of locating an easy calving bull easier for the buyer.

Bull buyers need to see birth weights of offspring from the bull in question and birth weights of the bull's half sibs. Compare those birth weights against unrelated offspring within the same herd. If the birth weights of the bull's offspring and his half sibs are below the average birth weight of the unrelated herdmates, he is probably an easy calving bull from that herd.

The calving ease ratings for the bull in question and for his sire are also important. Breeds which have selected their cattle for performance require producers to measure for calving ease and birth weights so try to choose bulls from these breeds. Do not expect to find large numbers of easy calving bulls and

remember that within any breed there are bulls that fit specific needs.

A breed that has intensely selected for performance has several sires that have records on a high number of offspring. As offspring numbers increase, the accuracy of a sire's predicted performance increases. Look for accuracy figures (given in fractions such as 0.5 to 1.0) in the performance data. As the accuracy figure approaches 1.0, the predictability of the sire increases. A low accuracy figure for any trait means the bull has not been intensely tested for that trait and performance cannot be accurately predicted.

Buyers should also request calving ease records for the maternal sire line of the bull in question. The paternal sire history may be acceptable, but the maternal sire history may not. Young bulls with this kind of history are a greater risk than those with acceptable histories in both the paternal and maternal sire lines.

Breeds that do not utilize performance testing make it difficult to predict the performance of a sire for any given trait. Bull sellers should supply buyers with performance figures to assure him he is getting the product he wants and to assure the seller of a repeat customer.

Summary

To avoid calving problems, select the heaviest heifers for replacements. These heifers will have the largest pelvic openings and are least likely to experience calving problems. Feed them to gain 1.25 to 1.5 pounds per day for proper growth prior to breeding.

Mate these heifers to bulls selected for ease of calving. Finding these sires is less risky when buying from herds that have accurate progeny records available.

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