BUILDING HERD FERTLITY

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A high percent calf crop is fundamental to profitable cow-calf production. It results from a high level of cows becoming pregnant within a limited breeding season and delivering calves that survive to marketing. While biologically and financially unfeasible to achieve 100%, several components of herd fertility can be measured as bench marks. Greater than 90% of cows should become bred within 60-70 day breeding season. Lost pregnancies over winter should be minimal (less than 2-3%), and the survival rate to weaning, approaching or exceeding 95%. More specifically we wish for at least 65% of calves to be born in the first heat cycle and third cycle calves to less than 10%.

When these targets are not being met, management of herd health, nutrition, and genetics should be examined. Poor herd health status, parasitism, and infectious disease can contribute large pregnancy and calf losses. Herd (cows, bulls, heifers, calves) vaccination, strict culling, and biosecurity of new additions will minimize disease risks from Johnnes, BVD, Leptospirosis, Vibrio, and Trichomoniasis that result in low conception, abortion, late repeat breeding, stillborn and weak calves. Strong immunity passed from cow to calf via colostrum is the best protection for newborns against disease challenge.

Cattle partition the nutrients consumed to first survive, then grow, lactate and finally reproduce. Therefore cow nutritional status is a major factor in expressed fertility. A simple assessment of nutritional status is by evaluating body condition (degree of fleshiness). Data supports maintaining cows in moderate condition to minimize postpartum anestrus, improve conception, and pregnancy rate. A minimum BCS of 5 at calving is considered needed to achieve pregnancy rates above 90%. Maintaining body condition is achieved by providing the quantity and quality of feed through grazing or feeding to meet animal requirements. Not be overlooked are vitamin/minerals and water.

From a genetic standpoint, most traits relating to fertility in the cow are considered to be lowly heritable (10% of differences seen attributed to genetics) and slow to change through selection. However, genetics is still a key factor due to the economic value of reproduction and the interaction of genetic merit to nutritional needs. Yearling bull scrotal circumference is a useful indicator trait associated with bull fertility and early puberty. Calving ease associated with easily born progeny is indirectly related to breed back. High breeding soundness exam scores evaluate structure and seminal traits. Daughters retained of bulls with high EPDs for heifer pregnancy and stability puts selection pressure on fertility as does culling open and late breeders and imposing a short limited breeding season on heifers.

If subpar breeding rates are associated with thin cattle, especially young cows; corrective action may include both genetic change and nutritional management. Optimal mature cow size and milking ability may have been exceeded for available feed resources addressed by selection to bring levels down. Or cost effective feed resources might be available to be directed to groups sorted by need or strategically given to utilization major feed resources. Tradeoffs in size, milk, and calf weight need to be considered. Big heavy calves are not as important as having a high percent of cows maintained produce a marketable calf.

Generally the greatest drag on calf crop percentage is from cows failing to breed or breeding out of season. This in turn leads to high culling and costly replacement. High herd fertility can be achieved over time by management that builds herd health, meets cows needs through grazing and feeding, and selects and culls for reproduction.