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FEEDING THE BEEF HEIFER ---

DURING PREGNANCY AND DURING THE FIRST WINTER

Abstract: Cutting back on feed for heifers during her first winter as a weaner and during pregnancy is false economy and costs the rancher in the long run.

The following article appeared in the September issue of Agricultural Research magazine.

"Cattlemen are prone to heated debates when the subject turns to feeding first-calf heifers. Each seems to have his own answers as to the way and how of feeding. Calf birth weight, calving difficulty, and post partum reproduction of the heifer are all matters of general concern.

To help resolve these problems, ARS physiologist Robert A. Bellows, studied two groups of first-calf heifers at Miles City, Montana. Sixty-two Angus-Hereford crossbred heifers were bred artifically to the same Angus bull. Ninety days before calving, they were placed in two groups--one fed at a high level (Group H) and the other at a low level (Group L). Group H received 20 pounds of hay and 5 pounds of grain per day, while Group L received only 15 pounds of hay.

Though the heifers entered the experiment at about the same weight, group H heifers weighed 100 pounds more than those in the other group before and after calving.

Calving difficulty was the same for both groups but Dr. Bellows warns that excessive feeding resulting in fat heifers can cause severe calving problems. Problems that may have stemmed from the high-level diet were avoided in group H by providing adequate nutrition without overfeeding.

Calves from group H heifers weighed only 4 pounds more at birth and continued to weigh more while on the cow. When weaned, they averaged 14 pounds heavier than the calves from group L heifers.

The most striking effect of gestation feed levels, however, was on the number of cows in heat before the next breeding season. In group H, 97 percent of the cows came into heat before the regular breeding season, whereas only 68 percent of those in group L did so. Breeding at that time means an earlier calving date.

Dr. Bellows has shown that adequate nutrition of first-calf heifers, though perhaps slightly more costly at first, is the most profitable in the long run.

"The first winter after a heifer is weaned may be the most important season of her life. Nutrition during that time can condition her to be a high or low lifetime producer.

Poor winter feeding is false economy. ARS physiologist Robert A. Bellows, at Miles City, Montana, found that a heifer probably will not conceive early in the breeding season if she is not in good condition. Heifers in good condition, on the other hand, usually conceive early in their breeding season and continue to do so during their subsequent productive years.

Dr. Bellows studied the effects of winter weight gains on 89 crossbred Angus-Hereford heifers. Winter gains in three groups were held at 0.5, 1.0, and 1.5 pounds per day by adjusting feed levels. After the winter feeding study, all heifers were pastured together for the summer.

Marked differences were noted in heifers at breeding time. The high-conditioned group reached puberty at an average age of 388 days as compared with 434 days for low-conditioned heifers and 412 days for the middle group.

To be good producers, heifers must conceive early in the breeding season. Dr. Bellows found that 83 percent of the high-conditioned heifers were in heat before the breeding season and 17 percent during the breeding season. This meant a possibility of a 100-percent calf crop.

On the other hand, only 7 percent of the low-conditioned heifers were in heat before and 73 percent during the breeding season. The other 20 percent did not come into heat until after the breeding season had ended. This meant only the chance of an 80-percent calf crop. All of the high-conditioned heifers were bred, but only 80 percent were bred in the low-conditioned group.

During the fall following the breeding season,87 percent of the high-conditioned heifers were pregnant while only 50 percent of the low-conditioned heifers were--a big difference in profit when the calves arrive.

Dr. Bellows concluded that a heifer's chances of being a productive animal are very much lessened if she is not in condition to conceive early in the breeding season."

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