

TIME OF FEEDING AND ITS EFFECTS ON TIME OF CALVING – A PRACTICAL APPROACH

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Calving time is probably the most intense period in the livestock production year. Following its discovery by a Canadian cattleman, research conducted by Agriculture Canada at Brandon, Manitoba resulted in a significant increase in daytime calvings when cows were fed at either 11 A.M. or 9 P.M. Conversely, a negative response was obtained from 8 A.M. and 3 P.M. feedings. Several factors were measured. However, the only one having any significant effect on daytime calvings was the calves sire.

To evaluate time of calving from a practical standpoint, feeding times of 8 A.M. and 5 P.M. were selected. The experiment was started during the winter of 1981-82, when straightbred Hereford and crossbred Angus X Hereford cows ranging in age from 2-10 years were separated into two groups and fed complete mixed wintering rations. Ration composition in Group I (8 A.M.) consisted of Sudan silage, alfalfa hay, wheat straw and minerals, whereas Group II received Sudan silage, alfalfa hay, corn grain and minerals.

During the winter of 1982-83, 2-year old heifers and cows of all ages were again randomized into two groups each and fed long hay rations at the predetermined times of 8 A.M. and 5 P.M. Feeding at the experimental times was started two weeks before calving each year.

Parameters being evaluated include age of cow, calf sire, sex and birth weight of calf.

Heifers and cows were wintered separately and the percentage of calvings and distribution relative to time are shown in Figures 1 and 2.

Summary:

1. A total of 263 Hereford and Angus X Hereford crossbred cows and 147 first calf heifers of the same breed composition have been used to compare the effect of morning (8 A.M.) versus late afternoon (5 P.M.) feeding on times of calving.
2. Late afternoon feeding has developed a favorable shift in the distribution of calving times. Favorable calving hours were identified as falling between 6 A.M and 8 P.M. Late afternoon feeding of first calf heifers resulted in 12.7% more calvings during the desirable calving period, and shifted 14% of the cows into the desirable time frame.
3. No differences were measured when the effects of cow age, sex, birth weight and sire of calf were analyzed.
4. Data accumulated to date strongly favors the practice of late afternoon feeding (5 P.M.) to increase the number of calvings during the desirable hours.

Figure 1. Calving percentage for cows fed at 8:00 A.M.

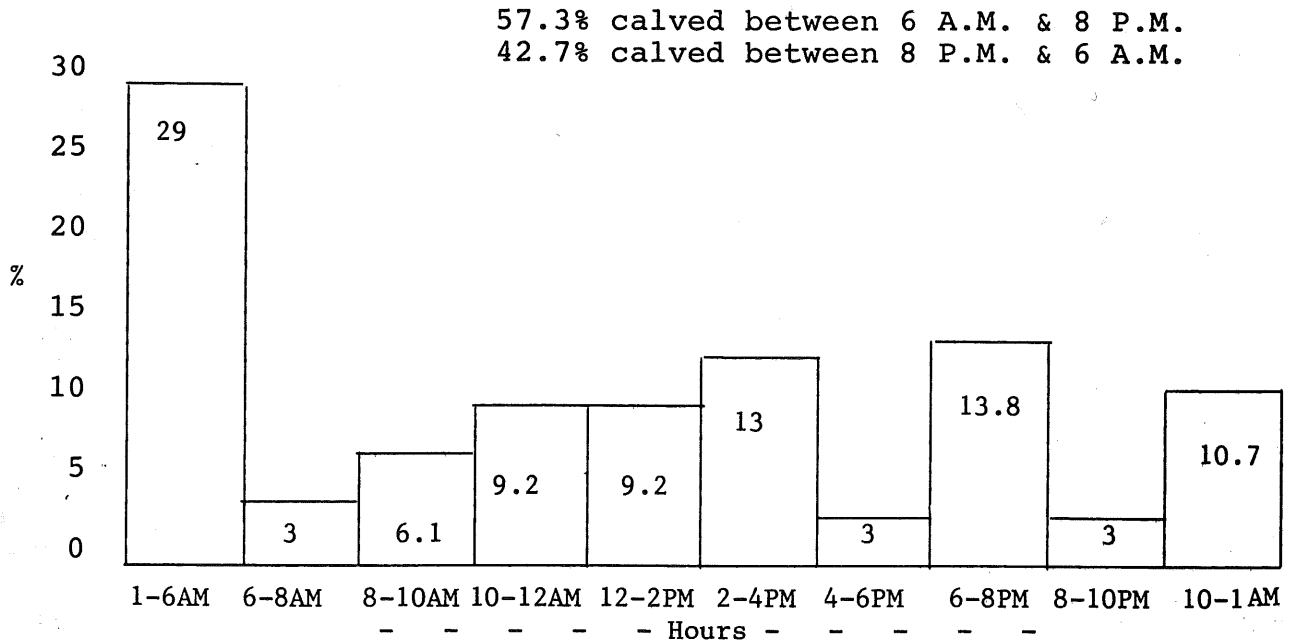


Figure 2. Calving percentage for cows fed at 5:00 P.M.

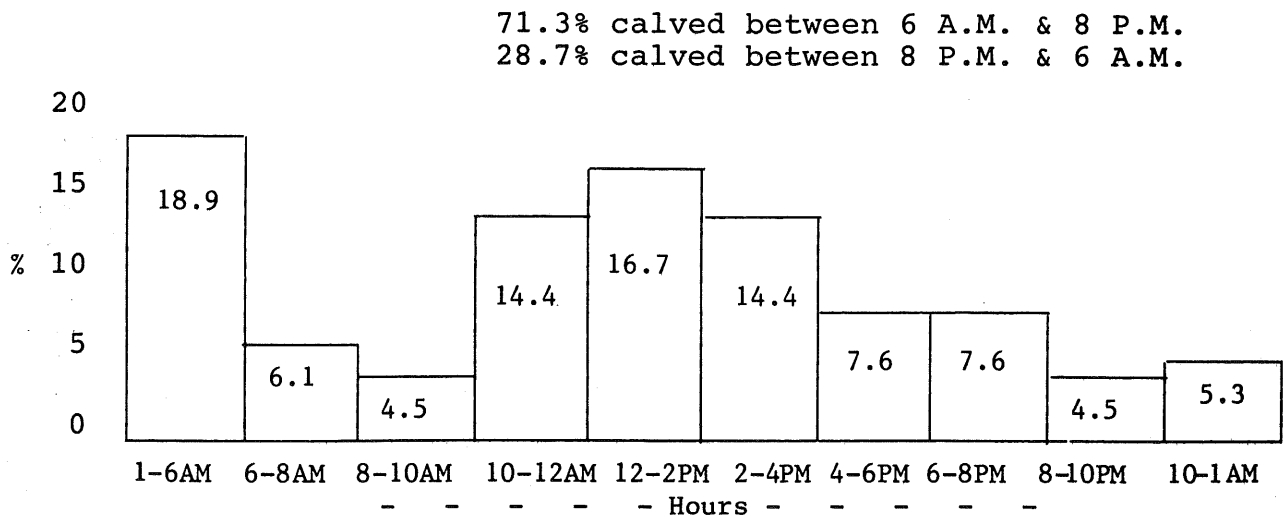


Figure 3. Calving percentage for heifers fed at 8:00 A.M.

61.7% calved between 6 A.M. & 8 P.M.
38.3% calved between 8 P.M. & 6 A.M.

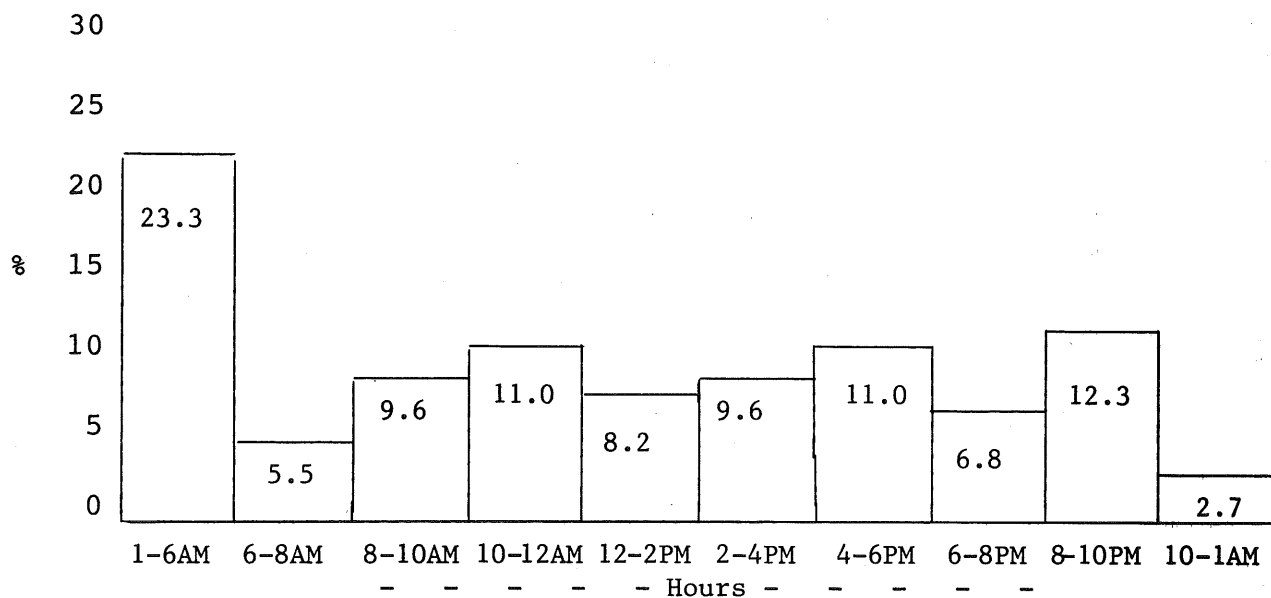


Figure 4. Calving percentage for heifers fed at 5:00 P.M.

74.4% calved between 6 A.M. & 8 P.M.
25.6% calved between 8 P.M. & 6 A.M.

