

## **TIME OF FEEDING AND ITS EFFECTS ON TIME OF CALVING**

### **A PRACTICAL APPROACH**

D.G. Landblom and J.L. Nelson

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. plus 3 P.M. feedings. Several factors were measured; however the only one having any significant effect on daytime calvings was the calves sire.

The inconsistency of a favorable response late morning and early evening necessitates the need for further investigation into these unique phenomena. 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 164 straightbred Hereford and crossbred Angus X Hereford cows ranging in age from 2-10 years were separated into two groups. Both were fed complete mixed balanced wintering rations as close to the predetermined feeding times of 8 A.M. and 5 P.M. as possible.

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.

Parameters being evaluated include age of cow, and size, sex and birth weight of calves.

#### **Summary:**

1. A total of 164 straightbred Hereford and crossbred Angus X Hereford cows were used to evaluate the effect of morning (8 A.M.) versus late afternoon (5 P.M.) feeding on time of calving.
2. Late afternoon feeding (5 P.M.) resulted in 17% more calvings between 6 A.M. and 8 P.M., with 67.5% of all calvings occurring during the most desirable daytime hours between 9 A.M. and 6 P.M.
3. Calvings among morning fed cows were distributed throughout the 24 hour period; however the greatest concentration occurred during the evening and early morning hours between 7 P.M. and 5 A.M.
4. No differences were measured when the effects of cow age, and sex, birth weight and sire of calf were analyzed.
5. While preliminary, these initial results indicate that the number of daytime calvings can be increased with a late afternoon 5 P.M. feeding time.

Please insert feeding times graph.