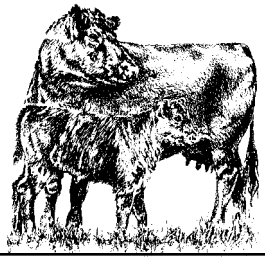

Western Beef Resource Committee

Fourth Edition

Cattle Producer's Handbook

Management Section 780

Effect of P.M. Feeding on Daytime Calving

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Watched pots never boil and heifers calve on their own schedule. These two old sayings are only partially true. Given enough time and heat a watched pot will boil, and feeding cows in the p.m. will cause about 70 percent of the cows to calve during the daylight hours.

Gus Knoefal, a purebred breeder from Manitoba, Canada, was one of the first individuals to investigate the possibility of changing calving time by manipulating feeding time. He established two different feeding programs for his cows: one group was fed 11 a.m. to noon and from 9 to 10 p.m. The second group was fed from 8 to 9 a.m. and again from 3 to 4 p.m.

Knoefal continued these feeding regimes from 1 month before the start of calving. He recorded the time of day when each calf was born (Table 1). Cows fed later in the day had more calves born during the daylight hours compared to cows fed earlier in the day (80 vs. 38 percent, respectively).

Iowa State University conducted a survey of 15 cattle producers who fed either early in the day (before noon) or late in the day (5 to 10 p.m.). Cows fed late had 85 percent of their calves born during the day while only 15 percent were born at night (Table 2). Only 49.8 percent of the cows in the morning-fed group calved during daylight hours.

In a 3-year study conducted at the Livestock and Range Research Station (LARRS) at Miles City, Montana, researchers found that approximately 67 percent of the cows fed early (7 to 9 a.m.) calved from 6 a.m. to 10 p.m., and 33 percent calved at night (10 p.m. to 6 a.m.) (Table 3). In the cows fed late category (5 to 6 p.m.), 78.1 percent calved during the day and early evening hours and 21.8 percent calved at night.

In the Knoefal study and Iowa survey, feeding occurred as late as 9 to 10 p.m., whereas cows in the LARRS study were mostly fed at 5 to 6 p.m. in the late feeding group.

Table 1. Influence of feeding time on calving time.*

		Calving time	
Feeding time	**# calvings**	**7 a.m.-7 p.m.**	**7 p.m.-7 a.m.**
Fed 11 a.m. to noon and 9 to 10 a.m.	44	80%	20%
Fed 8 to 9 a.m. and 3 to 4 p.m.	39	38%	62%

*Reported by R. S. Stagmiller and R. A. Bellows (1981) from data by Gus Knoefal, Arborg, Manitoba.

Table 2. Effect of feeding time on calving time.*

		Calving time	
Feeding time	**# calvings**	**6 a.m.-6 p.m.**	**6 p.m.-6 a.m.**
Morning-fed only (before noon)	695	49.8%	50.2%
Evening-fed only (5 to 10 p.m.)	1,331	85.1%	14.9%

*Reported by R. S. Stagmiller and R. A. Bellows (1981) from data by Iowa State Extension Service, C. Iverson.

Table 3. Effect of feeding time on time of calving at the LARRS Miles City, MT.*

		Calving time	
Feeding time	**# calvings**	**6 a.m.-10 p.m.**	**10 p.m.-6 a.m.**
Early-fed (7 to 9 a.m.)	334	66.9%	33.3%
Late-fed (5 to 6 p.m.)	347	78.1%	21.8%

*Summary of 3 years of data. Reported by R. S. Stagmiller and R. A. Bellows.

This 3 to 4 hour difference may account for more cows calving during the daylight hours in the earlier studies.

Advantages are many to calving during the day. Producers can more easily observe the herd and assist with calving during daylight hours. With fewer cows struggling through the night to calve on their own, fewer calves are lost. Newborn calves get off to a better start when sunshine is immediately available to warm them and the possibility of hypothermia is reduced.

Predator losses usually occur in the nighttime hours. Calving at night might reduce perdition losses. Feeding cattle just before the colder nighttime temperatures might actually aid in body heat preservation of the animal because of heat generated by rumination and retention of heat as fill in the rumen.

Feeding cows in the evening has shown to increase the number of cows calving during daylight hours; however, this has not eliminated nighttime calving. Standing forage and over feeding cows will lower the success rate of daytime calving for obvious reasons. Therefore, beef cattle producers still need to observe their cows during the late night and early morning hours.

A drawback to getting daylight calves is producers will probably be feeding hay in the dark. But which would producers rather be doing in the dark, throwing out hay or pulling calves?

References

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