

MODIFYING CALVING AND LAMBING SCHEDULES

It is easy to remember the gestation of sows, which lasts three months, three weeks and three days. Then, it seems, baby pigs are usually born at three in the morning. What an inconvenient hour to have duties as “mid-wife” in the farrowing barn. It appears cows and ewes have a similar preference. They frequently deliver their calves and lambs during the night, usually when it’s darkest and quite often when stormy.

A recent article by Rick Rasby, beef specialist with the University of Nebraska-Lincoln, suggests a simple management strategy that can make a rancher’s life easier and potentially save more calves during the birthing process. Rasby quotes several studies to support the recommendation of feeding pregnant beef cows at dusk. The result has been an increased number of cows calving during daytime hours when it’s easier for ranchers to observe and potentially assist cows that may be having difficulties delivering their calves.

In a Canadian study of 104 Hereford cows, 38.4 percent of a group fed at 8:00 a.m. and again at 3:00 p.m. delivered calves during the day as compared to 79.6 percent of a group fed at 11:00 a.m. and 9:00 p.m. A British study utilizing 162 cattle on four ranches compared the percentages of calves born from 5:00 a.m. to 10:00 p.m. to cows fed at different times. When cattle were fed at 9:00 a.m., 57 percent of the calves were born during the day compared to 79 percent when feeding occurred at 10:00 p.m. In additional field trials by cattlemen utilizing night feeding, 35 cows and heifers were fed once daily between 5:00 p.m. and 7:00 p.m. Happily, 74.5 percent of the calves were born between 5:00 a.m. and 10:00 p.m. Daytime calving made it easier for mother cows and busy ranchers to take care of duties when the sun was shining to warm and welcome baby calves into the world.

In the most convincing study to date, 1,331 cows on 15 Iowa farms were fed once daily at dusk. That protocol resulted in 85 percent of the calves being born between 6:00 a.m. and 6:00 p.m. It did not seem to matter whether pregnant cows were started on the night feeding the week before calving began in the herd or two to three weeks earlier. Either procedure resulted in more daytime births, which also led to more live births. Researchers concluded that the easiest and most practical method of inhibiting nighttime calving is by feeding pregnant cows at dusk or during early nighttime hours.

The obvious question is why this actually happens. The physiological mechanism is yet unknown, but some hormonal effect appears to be involved. Rumen motility studies indicate the frequency of rumen contractions falls a few hours before the birthing process begins. Intraruminal pressure begins to fall in the last two weeks of gestation, with a more rapid decline during calving. It has been suggested that night time feeding causes intraruminal pressures to rise at night and decline in the daytime, thus a higher percentage of calves are born during daytime hours.

Ewes are also creatures of habit and some believe that taking advantage of the ewe’s conditioned diurnal cycle will concentrate lambings to a more convenient period of time. That cycle can be influenced by feeding the ewes every day at mid-morning and by not providing any stimuli during the night that will confuse the cycle.

Shepherds at Maple Lawn Farm in Manitoba, Canada claim unusual success in conditioning ewes to deliver their lambs during daytime hours. Managers at that farm shifted to feeding ewes their hay at mid-morning, along with some grain at 5 p.m. They reported that 90 percent of their lambs are born in the daytime or early evening hours. They also point recommend minimal activity in the barn during the night hours to minimize night births. They suggest no unnecessary noise and no bright lights, with all checking done very quietly, with a flashlight. Managers at Maple Lawn Farm also agree that different feeds, breeds, climate, or barn setup may alter the success others may enjoy.

An abstract in the Journal of Animal Science, written by the reverend R. E. Hudgens, is not so encouraging however. Hudgens reports on a two year study of 300 pregnant ewes randomly allotted to treatment of two diets and two feeding times that were then correlated to time of lambing. That study showed no statistical difference between lambing times or behavioral activities.