

Winter Feeding

Fact Sheet 2

HOW IMPORTANT IS YOUR WINTER FEEDING PROGRAM?

By Julie Stitt

As we approach calving it is important that we evaluate the condition of our cows and ensure the nutritional level being offered to them will maintain or increase the reproductive efficiency in our herd. As a result of extensive research there is substantial evidence that links the level of cow nutrition before calving to postpartum reproductive performance. It has been demonstrated that body condition at calving is an important factor in the reproductive performance of spring-calving cows.

In managing of a beef the primary to maximize of calves born cow mated. We would like to have all of our cows producing a calf every year from two years of age until they are culled for age or soundness.

Reproduction is one of the most important factors affecting the profitability of a beef herd operation

the nutrition cow herd objective is the number per year per

The production goals of most cattlemen include maintaining or possibly improving reproductive efficiency while keeping feed costs as low as possible. The ideal situation would be to have cows calve without difficulty, clean, return to estrus in a short period of time, breed on the first service and wean a heavy calf while maintaining moderate body condition.

Postpartum Interval & Conception Rate

It is essential that cows receive adequate nutrition before and after calving. Feeding programs that result in thin cows at calving or in a loss of body condition after calving increase the interval from calving to first heat and decrease first service conception rates. An increase in days to estrus (standing heat) or a decrease in conception rate will result in fewer cows becoming pregnant in the first three weeks of the breeding season. Richards et al., 1986 reported that cows with a low body condition score take longer to return to normal estrus than cows with an

average or above average score. Also, cows with poor body condition at calving had a lower pregnancy rate in the first part of the breeding season regardless of the feeding program after calving. In addition, the study indicated that feeding programs after calving did not appear to affect the potential fertility of cows going into calving in good body condition.

In a study conducted at the Livestock and Range Research Station at Miles City, MT., R.A. Bellows, R.E. Short and G.V. Richardson reported that the effect of inadequate nutrition during pregnancy had a much greater effect on postpartum (after calving) reproduction on heifers than cows. Low feed levels during pregnancy had marked negative effects on all aspects of post partum reproduction in heifers. Heifers returned to heat after calving at a much slower rate than did cows. Effects on day of first heat indicated low feed levels during pregnancy were more detrimental to heifers than to cows and heifers appeared to benefit more from the high feed level during pregnancy than did cows. The same was true for duration of the postpartum period. Low feed levels had a more negative effect on heifers than cows. Similar differences were found in the percentage of dams in heat by the beginning of the breeding season. These differences resulted in marked effects on pregnancy rates with averages of 50.3 vs. 77.8% for heifers compared to 83.4 vs. 81.0% for cows from the low and high gestation feed levels respectively. Low feed levels during pregnancy had significant negative effects on all acts of reproduction in heifers following calving.

Also, it was interesting to note in this study that calving problems were more severe in heifers than cows and could not be corrected by low feed levels during gestation. Doonbos et al. (1984), Whittier et al. (1988), Goehring et al. (1989), and Wiley et al. (1991) also found no differences in birth weight and (or) calving ease score due to pre-calving nutrition level for first-calf heifers. In other studies it appears that high levels of nutrition pre-calving may increase birth weight but do not increase the level of calving difficulty

as compared to heifers and cows on low feed levels pre-calving.

Flushing

To obtain optimum post calving fertility, mature cows should calve in a good body condition and be able to maintain that condition through the breeding season. Flushing, the practice of feeding a very high level of energy for a couple of weeks before the start of the breeding season, only works in cows that are below optimum condition and can gain condition to reach an optimum during flushing. Flushing will not enhance reproduction in cows that are unable to gain enough condition during flushing.

Pounds of Calf Weaned

Another result of inadequate cow nutrition will be the reduction in pounds of calf weaned. Reports indicate a 5 per cent to 25 per cent reduction in adjusted 205-day weaning weight of calves from dams with an inadequate body condition at calving and from suckled cows losing condition after calving (The Beef Cow-Calf Manual, Alberta Agriculture). The amount of weight loss in the current year depends on breed type and severity of underfeeding before cows go to good pasture. If the cow herd has access to good or excellent pasture within 45 to 60 days of when most calves are born the weaned weight of the current calf crop may not be reduced as much as indicated above.

The major loss in pounds of calf weaned occurs in the following year. Pounds of calf weaned are reduced the following year among undernourished cows because calf weaning weight is markedly affected by age of the calf at weaning. The management decisions made before and after calving this year will affect the next-year's losses in terms of weight of calf weaned.

Cows that calve with a less than optimum body condition score will usually show a decrease of weaned calf-weight the next year, regardless of the nutritional level offered after calving. This loss results from cows either failing to become pregnant or conceiving later in the breeding season. When cows calve with an optimum body condition score and lose condition after calving, there will be a reduction in next year's calf weaning weight. The reduction is caused by an average two to five week delay in the return to estrus after calving. Cows that have an optimum condition score when they calve and are able to at least maintain that condition after calving are the most successful in both rebreeding on time and optimizing pounds of calf weaned.

In spring-calving operations in Canada the last third of pregnancy occurs during the winter season when the quantity and quality of feed is limited and the nutritional requirements are met largely by feeding stored forages and supplemental concentrates. The body condition of

your cows can be used as one management indicator that can predict herd fertility and the type of feeding program that may be required in your herd. In order to maintain a profitable beef enterprise attention must be given to your winter feeding program and its effect on the reproductive efficiency in your herd.

For more information on winter feeding programs for beef cattle please contact the beef specialist or veterinarian in your area.