

"Calf management practices and associations with herd-level morbidity and mortality on beef cow-calf operations."

## **CALF MANAGEMENT SURVEY**

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**Background:** Data surrounding management practices on farm can be difficult to obtain. We often rely on anecdotal data to help determine research and extension or technology transfer priorities, but anecdotes do not help determine the frequency of certain practices or what effects those practices may have on an operation's profitability. Most producer surveys try to get as much information as possible, and are often repeated vary rarely (or not at all) so any indication of industry trends can be easily lost.

**Objectives:** To investigate calf management practices on beef cow-calf operations.

What They Did: A 40-question survey about management practices was distributed to producers via paper surveys and an online link. Questions were primarily related to early calf management, illness and death loss, but the survey did include some questions about management practices later in life.

**What They Learned:** 267 producers (the majority located within Alberta) responded to the survey, which was distributed in the fall of 2013 (information requested for the 2013 born calves). However not all respondents

completed the survey in it's entirety. Herd sizes ranged from three to 1700 cows, with a median herd size of 135.

The most popular month for calving was March, with 36.7% of producers calving at that time. 26.3% began calving in April, 19.5% in February, 10% in January, and the remainder in May and June. This is consistent with the results from the Western Canadian Cow-Calf Survey (WCCCS), which asked for details on the 2014 calf crop over a larger geographical area. Length of the calving season was 79 d, about two weeks shorter than that reported by the WCCCS.

More than half of respondents rarely intervened during calving, with 65% calling a veterinarian if they could not correct a problem on their own. 13% and 15% administered pain medication to the calf or the cow after calving respectively. Vitamin and/or mineral injections were administered by 53% of producers.

Over 85% of respondents verified colostrum intake by observation of suckling and intervened if they felt the calf had not sucked enough. Almost 70% preferred to use the dam's fresh colostrum if intervention was necessary, but colostrum replacer was the top choice for 13% of respondents.

70% of respondents castrated using the small elastrator bands at an average age of 1.3 days, while almost 40% used surgical castration at around 2 months. Both this survey and the WCCCS had a similar percentage of respondents that used pain medication at castration (4.4% and 4.2%, respectively). Parasite prevention was most commonly administered to cows during the fall.

A number of management practices were associated with an increased herd level incidence of pre-weaning calf diarrhea, bovine respiratory disease, and mortality including calving season, calving season length, colostrum source, and colostrum management practices.

A surprising number of respondents (just over 8%) did not record any information at calving.

**What It Means:** While a survey of this type cannot determine cause and effect, it does help us to better understand which management practices are being used, which have not been adopted, and which need to be further investigated to improve the health and survival of calves.

For example, approximately 57% of respondents indicated that they suspend calves by the back legs (or over a gate) to resuscitate; this practice has long been discouraged in the veterinary community as it leads to compression of the diaphragm by internal organs and actually makes it more difficult for the calf to expand its lungs and breathe. Further, an ideal calving span should be 60-80 days for efficient use of labour, a more uniform calf crop, and improved productive and reproductive efficiency. Pre-conditioning was an area that had not seen a large amount of adoption by survey respondents, however, just under half of respondents would consider pre-conditioning in the future if the right conditions (economic and otherwise) were in place.

The practice of providing pain medication to cows, calves, or both during difficult calvings may reduce inflammation and improve both cow and calf vigour. This is an area where more research is required.

The scientific article that the survey results are published in is not open access, however the abstract can be read here.

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