

**INCREASED RISK OF NON-PREGNANCY ASSOCIATED  
WITH *N. CANINUM* INFECTION  
IN WESTERN CANADIAN BEEF HERDS**

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The objective of the first study was to examine the long-term impact of a *N. caninum*-associated abortion outbreak in a large northern Alberta cow-calf herd. Blood samples were collected three times from all bred females and from heifer calves born the spring before the outbreak (average age 7-9 months). These blood samples were collected (1) at the time of the outbreak, (2) the following spring, and again (3) the subsequent fall. At the time of the abortion outbreak 81% of all bred females and 87% of the heifer calves were serologically positive. In the spring, 49% of the cows and 47% of the heifer calves remained positive. The subsequent fall 48% of the remaining cows and heifers were serologically positive. Thirteen and one-half percent of the yearling heifers and 22.2% of the mature cows were not pregnant the fall after the outbreak. Heifers that were still serologically positive in the spring were 1.8 times more likely to be open in the fall (95% CI, 1.2 to 2.9) and the cows positive in the spring were also 1.8 times more likely to be non-pregnant in the fall (95% CI, 1.04 to 3.22).

Blood samples were also collected from pregnancy-tested cattle at nearby auction marts. Of the 1806 cows tested, 17% were open and 9.1% were serologically positive. The positive cows were 1.7 times (95% CI, 1.3 to 2.2) more likely to be non-pregnant than the negative cows.

In the fall of 1999, 3100 blood samples were collected from beef cows at the time of pregnancy testing across Saskatchewan and Alberta. The samples were collected from cows in community pastures and randomly sampled individual herds. These samples will be used to examine the prevalence of *N. caninum* in commercial cow-calf herds and to test the association between pregnancy and serological status. Management factors were also examined for association with herd serological status.