

removed from the calving area to a lower risk environment as soon as possible.

c) Hay bales/rolls for winter feeding should be placed in different sites to prevent accumulation of contaminated feces in one area (areas which are often congregation sites for susceptible calves).

d) Grazing contaminated pastures is a possible means of infection transmission and pastures can remain contaminated for over a year. However, the risk of infection transmission from grazing is likely low and control efforts such as pasture rest or tilling and re-seeding are too expensive to be warranted for most producers.

#### 5. **Calf management**

For dairy herds, artificial rearing of calves is one of the most effective paratuberculosis control methods. While this technique is out of the question for most cow-calf operators, in some small herds for a few select cows, "rescue" of calves by hand rearing with clean colostrum and milk replacer could be considered.

**In closing, I re-iterate that prevention is far more cost-effective than control after infection. If herds are infected, a steady consistently applied control program will succeed and potentially eradicate the *M. paratuberculosis* infection. The foundation of a Johne's control program in cow calf operations is a test-and-cull plan.**

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*Note: Statements regarding use and interpretation of the ELISA for bovine paratuberculosis only pertain to the USDA-licensed test (IDEXX Laboratories, Inc.) performed by laboratories where Johne's testing has been USDA-certified (list available from Dr. Janet Payeur at NVSL, Ames, Iowa).*

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## Abstract

### Use of ultrasonography to help to predict observed oestrus in dairy cows after the administration of prostaglandin $F_2\alpha$

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A total of 76 cows from seven herds with an ultrasonographically visible corpus luteum at routine herd fertility examinations were treated with prostaglandin  $F_2\alpha$ . The sizes of the cavities of all the follicles on both ovaries with a diameter greater than 5 mm were measured. The cows were observed for signs of oestrus over the following six days and the time to onset of oestrus was recorded. Milk samples collected when the prostaglandin was administered and at oestrus were assayed for milk progesterone concentration. The herd of origin, lactation number, body condition score, days

after calving at the time of examination and the total number of follicles when the prostaglandin was administered were not found to have any correlation with time to oestrus. Seventy-three of the 76 cows had milk progesterone concentrations consistent with active luteal tissue when the prostaglandin was administered, and 33 of them were observed in oestrus and had low milk progesterone concentration within six days. The mean time to the onset of oestrus was significantly and inversely related to the size of the cavity of the smallest follicle with a diameter of more than 5 mm.