

Theriogenology, 1989 May;31(5):963-71.

## **Investigations of the incidence of bovine trichomoniasis in Nevada and of the efficacy of immunizing cattle with vaccines containing *Tritrichomonas foetus*.**

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#### **Abstract**

Trichomonas cultures taken from 2389 bulls showed that approximately 4.7% of them were infected. Correlation of these data with the ranches from which diagnostic samples were obtained indicated that in the period of 1984 through 1987 26.7 to 44.1% of ranches had at least one infected bull. Thirty-four 18-month-old Holstein heifers were assigned to one of three groups, controls n = 12 animals, soluble vaccine n = 11 animals, and whole vaccine n = 11 animals to determine the effect of *Tritrichomonas foetus* vaccines on the reproductive performance of *T. foetus* infected animals. Heifers were bred with *T. foetus* infected bulls beginning two weeks after the second *T. foetus* vaccination. All immunized animals developed antibody titers of at least 1:1000 following vaccination. In addition, all control and immunized animals became infected with *T. foetus*. However, the duration of infection was approximately two weeks shorter in immunized animals. Approximately 42% (5 of 12) of control heifers remained infected with *T. foetus* for the duration of the experiment, while only 18% (2 of 11) of each of the vaccine groups remained infected for the duration of the experiment. Finally, 27% (3 of 11) of heifers in each of the vaccine groups were pregnant at slaughter, while none of the control heifers were pregnant at slaughter. Therefore, both vaccine formulations appeared to protect heifers ( $P < 0.05$ ) from fetal loss due to trichomoniasis.