

Prevalence of *Tritrichomonas fetus* in a bull population and effect on production in a large cow-calf enterprise.

Rae DO¹, Chenoweth PJ, Genho PC, McIntosh AD, Crosby CE, Moore SA.

Author information

Abstract

OBJECTIVE: To determine prevalence of infection with *trichomonas fetus* in a bull population; assess influence of age, breed, and grouping; assess effects on measures of cow performance (pregnancy rate, weaning percentage, weaning weight); and estimate test sensitivity.

DESIGN: Epidemiologic study.

ANIMALS: 1,383 bulls and records for 28,471 cows bred by these bulls in the immediate past breeding season.

PROCEDURE: Bulls in 11 cattle units on a large ranch were tested for T fetus colonization by vigorous preputial scraping and protozoologic culture until no newly infected bulls were identified. Bull infection prevalence within units was calculated and correlated to production measurements reported for each cattle unit.

RESULTS: Mean prevalence of T fetus-infected bulls was 11.9% (range, 0 to 35.9%). Significant difference was detected between mean age of infected bulls (5.5 years) and noninfected bulls (3.9 years). Difference in prevalence among breeds was found, although other factors may have influenced this finding. Cow performance measurements (weaning percentage, mean weaning weight, and adjusted mean weaning weight/exposed cow) for cows exposed by breeding to bull groups with the highest prevalence of infection (35.9%) were significantly different from mean values for the entire study population. Test sensitivity for this study (73%) was less than that reported in other studies.

CLINICAL IMPLICATIONS: T fetus infection in a natural service beef herd has an adverse impact on several production measures: Severity of impact is related to prevalence of infection in the bull population, where prevalence is bull age and population dependent.