

Epidemiologic and economic analyses of an unusually long epizootic of trichomoniasis in a large California dairy herd.

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Abstract

An epizootic of trichomoniasis in a large California dairy herd caused an estimated economic loss of \$66,538 (\$665/infected cow). Greatest losses were caused by infertility (about 50% of losses caused by excess days open). The disease continued in the herd, despite culling older bulls and replacing them with young uninfected bulls and despite institution of an artificial insemination (AI) breeding program for 2 high-production strings. The AI breeder's practice of checking for estrus by vaginal examination was implicated in the spread of the disease. Of 5 cows that became infected before or at conception, 1 had the infection throughout the gestation period and into the next lactation. The prevalence of trichomoniasis in the herd (estimated on the basis of culture results) was 10.67%. The culture method had a calculated sensitivity of only 58.7%. Of 940 cows in the herd, 132 aborted during the epizootic (8 aborted twice); 45 abortions would have been expected in a dairy herd of this size in the absence of trichomoniasis. In high-density mass-bred herds, conditions and/or management practices may be conducive for trichomoniasis transmission, and generally recommended control programs should be adjusted on such dairies. In particular, dairy operators should not assume that culling older bulls and replacing them with young uninfected bulls and that institution of an AI program will be effective in limiting the spread of the disease. Moreover, a diagnostic test with improved sensitivity would greatly assist in the identification of infected cows.