Cross-sectional study of Johne’s disease in dairy farms and cattle of Uruguay
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Cross-sectional study of Johne’s disease in dairy farms and cattle of Uruguay. Johne’s disease is a chronic enteric disease caused by *Mycobacterium avium* subsp. *paratuberculosis* (Map). A cross-sectional serological study was conducted in 92 randomly selected dairy farms in which 25 cows were sampled in each farm or all the cattle was sampled when the number of cows was lower. 2,224 cattle samples of Uruguay’s largest dairy region were tested by ELISA test for antibody detection. The sampling results show 5.65±1.3% cattle seroprevalence and the estimated projection show that 70.27% of dairy farms have at least one serologically positive animal. In 35% of farms, more than 10% of the animals tested seropositive. These results are consistent with other studies in dairy herds, but with other calf rearing and herds management, where intensive rearing creates good conditions for the spread of the disease. Collins *et al.*, found a slightly higher seroprevalence, 7.2%, but less spreading between herds (50%). Similar results were found by Johnson-Ifearulundu *et al.* in 1998 in Michigan State. These reports are higher than reported in the NAHMS Dairy ’96 (3.4% cattle seroprevalence and 21% of herd level prevalence). Farm stratification according to animal level prevalence shows that 29.72% of the farms are negative, 35.88% have less than 10% of seropositive animals, 22.29% have 10% to 15%, 3.4% have a seroprevalence between 15% and 20%, 8.07% between 20% and 25%, and 0.64% of farms have more than 25% seroprevalence. In conclusion, 35% of Uruguayan farms have a prevalence above 10% which means that a high number of fecal Map shedders increase the spread of the disease, making it present in 70% of dairy farms. Statistical analysis was performed using the software routines of Intercooler Stata 12.0. These data indicates that preventative measures should be taken to avoid the spread of *M. avium* subsp. *paratuberculosis* in Uruguayan dairy herds.