# **Titre d’article**: Seroprevalence and risk factors of Coxiella burnetii infection in cattle in northeast Algeria

**Abstract :**

A cross-sectional study was conducted to determine the seroprevalence and the risk factors associated with C. burnetii infection in cattle in the state of Setif in northeastern Algeria from March 2016 to April 2018. A total of 678 cows animals aged at least 24 months and belonging to 90 herds were randomly selected. A serum sample from each cow was tested for antibodies against C. burnetii using an indirect enzyme-linked immunosorbent assay (ELISA). A structured questionnaire focusing on risk factors for C. burnetii infection was administered to farm owners involved in the study. The individual animal prevalence was 11.36% (77/678) (95%CI 8.97–13.75%), the herd prevalence was 45.56% (41/90) (95%CI 35.27–55.84%), and the within-herd prevalence ranged from 9.09 to 57.14% (mean 23.71%; Q1 11.11%, Q2 or median 20%, Q3 30%). Multivariable logistic regression analysis revealed that contact with other herds (odds ratio (OR) 1.95, 95 CI 1.12–3.42) and purchased animals (OR 2.05, 95 CI 1.14–3.68) was identified as risk factors for seropositivity to C. burnetii, while the use of disinfectants (OR 0.32, 95 CI 0.14– 0.72) was identified as protective factor. The results from the present study indicate that C. burnetii is circulating into cattle herds in the region of Setif in Northeastern of Algeria. It is recommended to implement good hygienic practices and measures of biosecurity to reduce the spread of infection between cattle herds and possible exposure of humans.