# **Titre d’article**: Genotyping of Coxiella burnetii detected in placental tissues from aborted dairy cattle in the north of Algeria

**Abstract**

Coxiella burnetii, is an obligate intracellular bacterium which is present throughout the world. In humans, C. burnetii is the causative agent of Q fever. In cattle, the infection is suspected to cause stillbirths, retained fetal membranes, metritis and infertility. The birth products of ruminants shed huge amounts of bacteria, and are considered a major source for human infection. The present study was designed to search for the presence of C. burnetii in placental tissues collected from aborted and normal calving dairy cows in Algeria, using molecular tools. A total of 77 placental tissue fragments were collected from dairy cows. 73 samples were collected from aborted cows and four samples were collected from natural calving cows over a period of two years from January 2013 to March 2015. The presence of C. burnetii in these samples was screened by quantitative real-time polymerase chain reaction (qPCR) targeting two different genes, IS1111 and IS30 A. The positive PCR amplicons were subsequently sequenced for Multispacer Sequence Typing determination (MST) using seven pairs of sequences (Cox2, Cox5, Cox18, Cox37, Cox56, Cox57, and Cox61). Fourteen placental tissues (19.1%) were found to be positive for C. burnetii by qPCR; 9 (12.3%) from the city of Blida and 5 (6.84%) from the city of Medea. Genotyping of the corresponding amplicons displayed 100% identity with C. burnetii MST20 genotype, confirming the circulation of this clone in dairy farms from Algeria