TITLE: OCCURRENCE OF COXIELLA BURNETII IN MINAS ARTISANAL RAW MILK CHEESE: A POTENTIAL PUBLIC HEALTH ISSUE IN BRAZIL.

AUTHORS: ROZENTAL, T.; FARIA, L.S.; FORNEAS, D.; RIBEIRO, J.B.; ARAÚJO, F.R.; LEMOS, E.R.S; SILVA, M.R.

INSTITUTION: OSWALDO CRUZ FOUNDATION, RIO DE JANEIRO, RIO DE JANEIRO, BRAZIL; FEDERAL UNIVERSITY OF JUIZ DE FORA, JUIZ DE FORA, MINAS GERAIS, BRAZIL; EMBRAPA DAIRY CATTLE, JUIZ DE FORA, MINAS GERAIS, BRAZIL; EMBRAPA BEEF CATTLE, CAMPO GRANDE, MATO GROSSO DO SUL, BRAZIL; JOÃO PENIDO REGIONAL HOSPITAL, JUIZ DE FORA, MINAS GERAIS, BRAZIL.

ABSTRACT:
The traditional way of making Minas artisanal cheese (MAC) in Serro's micro-region of Brazil was considered part of Brazil's intangible cultural heritage since 2008, and though it is produced from raw milk it has been released for consumption. The aim of this study was to estimate the prevalence of *Coxiella burnetii* in MAC produced in this region and approved for trade within the state by the Minas Gerais Agriculture and Livestock Institute (IMA). DNA products from fifty-three cheese samples, with ripening times of 3 to 8 days at room temperature, were submitted to PCR and DNA sequencing. The prevalence of *Coxiella burnetii* in Serro's MAC was 9.43% (95%CI: 3.1%-20.7%). This was the first time that this pathogen, considered a historical standard in the definition of the time-temperature binomial, has been researched in raw milk cheeses in Brazil, however, there is still no specific national legislation or control for this pathogen in raw milk derivatives. As this high prevalence of *Coxiella burnetii* in analysed cheeses could imply potential risks to public health, stronger control measures directed to animal health, raw milk and raw milk cheese agroindustries production are necessary in order to ensure food safety.

Keywords: *Coxiella burnetii; zoonosis;* Q fever; Minas raw milk artisanal cheese; Brazil

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