TITLE: *Arcobacter* isolated from cheese processing plant and comercial samples of Minas Frescal Cheese

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Abstract:

The emerging foodborne pathogen *Arcobacter* has been linked to gastrointestinal diseases in humans. Twenty one species are established or proposed and there has been an increase in the number of publications regarding *Arcobacter* since the first one in 1991. *Arcobacter* spp. has been detected in farm animals, food-processing environments and a variety of foods, including vegetables, poultry, dairy products, seafood, pork, lamb, rabbit and beef. In this study, from April to June 2017 the presence of *Arcobacter spp* was examined in samples collected from the environment of a cheese processing plant (n=10) and in Minas frescal cheeses (n=28) from nine local markets in Piracicaba region. *Arcobacter* spp. was isolated after enrichment step according to. The isolates were identified at genus level by conventional PCR. The primers used were Arco I 5'AGAGATTAGCCTGTATTGTATC3', and Arco II 5' TAGCATCCCCGCTTCGAATGA3'. *Arcobacter* spp. was present in 30% (3/10) of samples from the processing plant, being detected more frequently in Minas Frescal cheese. Moreover, 10.71% (3/28) of the commercial samples of Minas Frescal were positive also, confirming that these ready to eat product can be a source of *Arcobacter* spp. Identification at taxonomic level of species is being carried out. This information is necessary since only five species from twenty-one described are considered pathogenic.

Keywords: emerging foodborne, dairy products.

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