

TITLE: DETECTION OF *Salmonella* spp. IN ARTISANAL CHEESE OF CAMPO GRANDE, STATE OF MATO GROSSO DO SUL

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ABSTRACT:

Brazilian artisanal cheeses are characterized by the use of raw milk, as well as following simple and traditional manufacturing technology. Despite the efforts of the Brazilian authorities to regulate the production and commercialization of artisanal cheeses, these products often does not comply with the hygienic–sanitary requirements demanded by official agencies. *Salmonella* sp. continues to be a major concern for the dairy industry because these bacteria have caused outbreaks of illness and have been isolated from various dairy products. In the municipality of Campo Grande, the trade of artisanal fresh cheeses, from different regions of the state of Mato Grosso do Sul, is common. In this context, the survey of *Salmonella* spp. in artisanal cheeses provides important information for health authorities in order to prevent salmonellosis in the population. As a preliminary survey, eight samples of artisanal cheese (300g) were collected in public markets in Campo Grande. These samples were homogenized with 225 ml of buffered peptone water and incubated at 37°C for 24 hs. Then, 0.1 ml of each suspension was transferred into tubes with 9 ml of Muller-Kauffmann Tetrathionate-Novobiocin broth, which were incubated at 37°C for 24 h. Colonies were isolated in *Salmonella-Shigella* (SS) agar, at 37°C for 24 hours. Isolates with morphology suggestive of *Salmonella* spp. were submitted to DNA extraction with DNeasy Blood & Tissue kit (Qiagen) and PCR for *invA*. Bacterial isolates were detected with compatible morphology in seven of the eight (87.5%) SS plates. Molecular identification confirmed four of the seven isolates (57.1%) as *Salmonella* spp. Thus, this initial survey suggests that there is risk to the population for the consumption of artisanal cheeses in Campo Grande, MS.

Keywords: *Salmonella* sp., artisanal cheeses, PCR.

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