

**Título: *BACILLUS CEREUS* DETECTION IN DAIRY PRODUCTS: “REQUEIJÃO” AND “ESPECIALIDADE LÁCTEA” USING COMPACT DRY X-BC®**

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**Abstract**

*Bacillus cereus* is an important foodborne pathogen, which has the ability of forming biofilm and endospores able to survive some heat treatments, allowing it to be present in dairy products such as: UHT milk, pasteurized milk, ricotta cheese, powdered milk and ice creams. Besides the public health issue, it is also responsible for dairy products spoilage due to the lipolytic and proteolytic effects, turning it into a technological problem too for the dairy industry. This study was focused on evaluating *Bacillus cereus* occurrence in “requeijão” and “especialidade láctea”, heat treated dairy products that are broadly sold in Brazil. For this purpose, 15 samples of “especialidade láctea” from 3 trademarks (5 samples of each trademark) and 35 samples of “requeijão” from 7 trademarks, were obtained in supermarkets in the city of Jaboticabal, São Paulo State, Brazil. At the laboratory, 25g of each sample was added in Falcon tubes containing 225 mL of sterile peptone water 0.1%, after homogenization, 1mL of the dilution was transferred to Compact Dry X-BC® (IDEXX Laboratories) count plates in duplicate. The evaluation of the plates was performed according to manufacturer’s instruction. 12 (24%) samples of “requeijão” or “especialidade láctea” from 3 trademarks detected the *Bacillus cereus* presence with maximum count of  $3 \times 10^6$  cfu/g. In one of the trademarks evaluated, five samples were considered positive for the *Bacillus cereus* presence. One sample from the Compact Dry X-BC® (IDEXX Laboratories) positive material was inoculated in MYP agar with polymyxin and also was considered positive due to the growth of typical colonies. Those colonies were analyzed using the Gram staining and gram positives bacilli were observed. These partial results confirm the possibility of *Bacillus cereus* group as contaminant in “requeijão” and “especialidade láctea”, causing spoilage in these dairy products commonly sold in Brazil.

**Keywords:** *Bacillus cereus*, dairy, foodborne, food microbiology

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