

## Application of MPN-PCR in biosafety of *Bacillus cereus* s.l. for ready-to-eat cereals.

### ABSTRACT

Since *Bacillus cereus* is one of the important foodborne pathogens, it is interesting to investigate the biosafety of *Bacillus* spp. and *B. cereus* in ready-to-eat cereals marketed local supermarkets. For this investigation, the prevalence and enumeration of *Bacillus* spp. and *B. cereus* were assayed using MPN-PCR method. Results showed that 78% of the processed cereal products intended for direct consumption were positive for the presence of *B. cereus* with concentrations ranging from as low as 30 MPN/g to more than 24,000 MPN/g. The concentration obtained from this study also reflects on the differences in the contamination level between the infant food, raw cereals, cereal bars, ready-to-eat breakfast cereals and pre-mixed drinks examined. Hence, application of the MPN-PCR method was found to be useful to address the biosafety concerns of *B. cereus* in ready-to-eat cereals.

**Keyword:** Biosafety, Prevalence, Enumeration, *Bacillus cereus*, Ready-to-eat cereals