Paper 148 – Sciences



FOODBORNE BACTERIAL PATHOGENS, BACILLUS CEREUS, IN READY-TO-EAT FOODS IN SARABURI, THAILAND

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ABSTRACT

Foodborne illnesses cause morbidity, hospitalization and death to a variable extent and the problem is increasing world-wide. Bacillus cereus, a foodborne pathogen, is commonly distributed in the environment and especially in starchy foods. It can potentially cause emetic food poisoning if large numbers of cells are consume in contaminated food. The ability of the organism to produce enterotoxins is one of the important factors that causes illness. Nine specific genes coding for diarrheal enterotoxin in the B. cereus isolates were screened using PCR techniques. Cytotoxin K (cytK), enterotoxin FM (entFM), hemolysin BL (hbIA, hbIC, hbID), nonhemolytic enterotoxin (nheA, nheB, nheC), and NRPS gene (CER1) were targeted. The results shown that 90% of B. cereus isolates contain diarrheal-enterotoxin genes and the genes for nonhemolytic enterotoxin were found 2.46 more times than genes encoding hemolysin BL.