

**Prevalence of *Bacillus cereus* in selected foods and detection of enterotoxin using
TECRA-VIA and BCET-RPLA**

ABSTRACT

Enterotoxigenic *Bacillus cereus* was detected in cooked foods (17), rice noodles (3), wet wheat noodles (2), dry wheat noodles (10), spices (8), grains (4), legumes (11) and legume products (3). One hundred ninety-four (42.3%), 70 (15.3%) and 23 (5.2%) of the 459 presumptive *B. cereus* colonies isolated from PEMBA agar were identified as *B. cereus*, *Bacillus thuringiensis* and *B. mycoides*, respectively. *B. cereus* isolates were examined for growth temperature, pH profile and enterotoxin production using both TECRA-VIA and BCET-RPLA kits. One hundred seventy-eight (91.8%) and 164 (84.%) of the strains were enterotoxigenic as determined using TECRA-VIA and BCET-RPLA, respectively. Eighty-two (50%) of the enterotoxigenic strains were capable of growing at 5 °C, and 142 (86.6%) grew at 7 °C within 7 days of incubation. The enterotoxigenic strains did not grow at pH 4.0 but 69 (42.0%) of the strains were able to grow at pH 4.5 within 7 days at 37 °C. The isolates were resistant to ampicillin (98.8%), cloxacillin (100%) and tetracycline (61.0%), and susceptible to chloroamphenicol (87%), erythromycin (77.4%), gentamycin (100%) and streptomycin (98.7%).

Keyword: *Bacillus cereus*; Enterotoxin; Food; VIA