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ARABIC SUMMARY

6. SUMMARY

This work was carried out for isolation and identification of *Bacillus cereus* isolated from milk products, studying the sensitivity of *B. cereus* to antimicrobial agents and detection of plasmids in these isolates as *B. cereus* has public health hazard and cause economic losses in dairy industry.

The results are summarized in the following points:

1. Bacteriological examination was carried out to 130 samples of milk products (60 yogurt, 40 Ice cream, 15 processed cheese and (15 Ras cheese). On blood agar results were 43(71.66%) yogurt, 27(72.5%) ice cream, 9 (60%) processed cheese and 11 (73.33%) Ras cheese. While, on PEMBA it was 25 (41.66%) yogurt, 26 (65%) ice cream, 5 (33.33%) processed cheese and 6 (40%) Ras cheese.
 2. The biochemical reactions of the isolates from the two media were studied and the positive results shown by isolates from blood agar were 33 (76.74%) yogurt, (16 (55.17%) ice cream, 4 (44.44%) processed cheese and 5(45.45%) Ras cheese. while, those of isolates from PEMBA were 18 (72%) yogurt, (11 (42.31%) ice cream, 2 (40%) processed cheese and 3 (50%) Ras cheese.
 3. Toxicogenicity assays for 10 *B. cereus* isolates were studied and it was found that 6 isolates were able to produce hemolysin (60%) while, mouse lethal-toxin assay revealed killing of mice by 2 isolates (20%).
 4. Detection of plasmids was carried out to 15 isolates of *B. cereus* and it was found that all plasmids were identical (23 kbp).
 5. *In vitro* sensitivity test revealed that gentamicine had the superior sensitivity (75%). Then chloramphenicol and ciprofloxacin (66.7% for each), 7 isolates showed sensitivity to norfloxacin (58.3%) while, 11 isolates were resistant to penicillin (91.7%).
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