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SURVIVAL AND GROWTH OF *SALMONELLA TYPHIMURIUM*, *ESCHERICHIA COLI* O157:H7 AND *STAPHYLOCOCCUS AUREUS* IN EGGPLANT DIP DURING STORAGE

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Eggplant dip is one of the most preferred appetizing dishes worldwide where it is known also as mutabbal or baba ghannoug. The microbial safety of eggplant dip is a concern due to extensive handling during preparation, potential raw materials contamination, and potential abusive temperatures during storage. The aim of this study was to study the effect of citric acid (0, 0.4, 0.6 and 0.8%) on the survival and growth of *Salmonella Typhimurium*, *Escherichia coli* O157:H7 and *Staphylococcus aureus* in eggplant dip during storage at refrigeration temperature (4°C) and abuse temperatures (10 and 21°C) for up to 15 days. The pH of eggplant dip with 0, 0.4, 0.6 and 0.8% citric acid was 5.8, 4.3, 4.1 and 3.9, respectively. Generally, there was no significant effect of citric acid on the populations of *S. Typhimurium* and *E. coli* O157:H7 in eggplant dip. The populations did not change in samples without citric acid stored at 4°C for 15 days, while the addition of citric acid (0.4-0.8%) decreased the populations by < 1 log10. The reduction in *S. aureus* populations increased as citric acid concentration increased to reach reduction levels of > 3.0 log10 CFU/ g after 15 days of storage at 4°C. The obtained data would be useful in setting criteria for safe production and storage of eggplant dip at restaurants and home levels.

Keywords: Eggplant dip, *Salmonella Typhimurium*, *Escherichia coli* O157:H7, *Staphylococcus aureus*

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