

**ENUMERATION OF COLIFORM BACTERIA FROM
Lactuca sativa (LETTUCE) SANITIZED WITH
DIFFERENT TYPE OF SANITIZERS**

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ABSTRACT

ENUMERATION OF COLIFORM BACTERIA FROM *Lactuca sativa* (LETTUCE) SANITIZED WITH DIFFERENT TYPE OF SANITIZERS

Vegetables is an essential component of the healthy diet, which provides minerals, vitamins, and Phyto-nutrients. However, contaminated vegetables can be medium that spread diseases. The purpose of this study is to determine the coliform microbial loads of *Lactuca sativa* (lettuce) after being treat with different type of solutions namely turmeric extract, salt water and regular tap water. Lettuce sample was obtained from Kuala Pilah, Negeri Sembilan wet market. The procedure began with the treatment of lettuce sample with specified concentration of selected treatment solutions and were later enumerated on the MacConkey agar to count viable coliform colony. The Colony Forming Unit (CFU/g) was calculated and the result obtained shows a decrease of 70.45% for the turmeric solution when compared to standard Tap water treatment. CFU/g of lettuce sample treated with salt solution also shows a decrease of 69.83% when compared to the standard tap water treatment. Confirmation of coliform bacteria was conducted and several tests were performed for the suspected colonies on the plate. Among the tests done were the gram staining procedure to check the coliform's morphology. BGLB broth confirmation test for coliform and biochemical test (IMViC) to further identified the coliform species presence. The biochemical test gave a positive result for the presence of *Escherichia coli*.