

**DETECTION OF *Escherichia coli* FROM CHILI PASTE  
AT RETAIL MARKET**

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**Final Year Project Report Submitted in  
Partial Fulfillment of the Requirements for the  
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## ABSTRACT

Red chili is an important food ingredient in Malaysia and easily obtained at the market. The aims of the study were to determine the presence as well as the antibiotic resistance profile of *Escherichia coli* inside a chili paste commonly sold at the hypermarket and wet market. From the combination of serial dilution up to the concentration of  $10^{-3}$ , *Escherichia coli* were detected only in Sample A out of six samples tested with a density ranging between  $7.3 \times 10^{-2}$  to  $3.12 \times 10^{-3}$  CFU/g respectively. A total of six isolates results were obtained in this study by IMViC identification methods has indicate that *Escherichia coli* was not a high health risk to the consumer. However, public should be aware of the need for improving hygienic standards among the food handlers. Proliferation of antibiotic and multi antibiotic resistant bacteria is a public health treat worldwide. All the six *Escherichia coli* isolates were tested toward five antibiotics and found to be resistant towards Cephalothin (KF30) and Penicillin (P10) tested and susceptible towards Imipenem (IPM10), Norfloxacin (NOR10) and Tetracycline (TE30) with two antibiotic resistance patterns. The MAR index values of 0.4 indicate that the isolates were exposed to high risk sources in the environment. Therefore, public should be aware and always practice proper food handling.