

UNIVERSITI TEKNOLOGI MARA

**FOODBORNE PATHOGEN ASSOCIATED WITH
HOUSEFLIES INFESTATION AT PUNCAK ALAM**

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Project submitted in fulfillment of the requirements for
the degree of
Bachelor in Environmental Health and Safety
(Hons.)

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DECLARATION BY STUDENT

Project entitled “Foodborne Pathogen Associated with Houseflies Infestation at Puncak Alam” is a presentation of my original research work. Whenever contributions of others are involved, every effort is made to indicate this clearly, with due reference to literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of Project Supervisor Tuan Haji Mohd Pozi bin Mohd Tahir. It has been submitted to the Faculty of Health Sciences in partial fulfilment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons).

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ABSTRACT

Foodborne Pathogen Associated with Houseflies at Puncak Alam

Foodborne disease has become one of the major problems throughout the global where it is caused by bacterial contamination which lead to food poisoning. The housefly, is recognized as an important mechanical vectors of various infections diseases such as cholera, shigellosis and salmonellosis. The objectives of this study was to determine the presence of bacterial load on food that associated with flies infestation. Fly index is determined to observe the number of flies at Puncak Alam area. Fly Index is measured by using fly scudder grill and flies is counted when they perch on grill in 30 seconds for 10 times. The dilutions were first inoculated on nutrient agar for Total Plate Count (TPC) using spread plate method and plate were incubated at 37°C for 24 hours. Colony were selected and count from dilutions and inoculated on Macconkey agar, Mannitol Salt agar and Salmonella Shigella agar for isolation and identification of bacteria. A total of four difference food sample were studied for the presence of pathogenic bacteria which are *S. aureus*, *E.coli*, *Salmonella spp.* and *Shigella spp.* Bacteria load ranged from total plate count were 7.40×10^3 to 3.85×10^4 cfu/ml. It is found that there are significant different between total plate count of food exposed and unexposed with flies infestation at UiTM Puncak Alam and Puncak Alam City food courts which is P-value 0.009 and 0.027 respectively. This study reveals that housefly carry high potential of bacterial contamination and may contaminate the food.

Keywords: *housefly, total plate count (tpc), flies infestation*