

**UNIVERSITI TEKNOLOGI MARA**

**PHYSICO-CHEMICAL  
CHARACTERISTICS OF *Aedes*  
(*DIPTERA: CULICIDAE*) MOSQUITO  
IN DOMESTIC BREEDING  
CONTAINERS**

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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 “Physico-chemical characteristics of *Aedes* (Diptera: Culicidae) mosquito in domestic container habitat” 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 Dr. Nazri Che Dom. 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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## TABLE OF CONTENTS

<b>TITLE</b>	<b>PAGE</b>
<b>DECLARATION BY STUDENT</b>	<b>i</b>
<b>INTELECTUAL PROPERTIES</b>	<b>ii</b>
<b>APPROVAL BY SUPERVISOR</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iv</b>
<b>TABLE OF CONTENTS</b>	<b>v</b>
<b>LIST OF TABLES</b>	<b>ix</b>
<b>LIST OF FIGURES</b>	<b>x</b>
<b>LIST OF EQUATION</b>	<b>xi</b>
<b>LIST OF ABBREVIATION</b>	<b>xii</b>
<b>ABSTRACT</b>	<b>xiii</b>
 <b>CHAPTER ONE: INTRODUCTION</b>	
1.1 Background information	1
1.2 Problem statement	5
1.3 Objectives	7
1.3.1 General objective	7
1.3.2 Specific objectives	7
1.4 Study hypothesis	7
1.5 Study scope and limitation	8
1.6 Significant of study	10
1.7 Conceptual framework	11

## ABSTRACT

### **Physico-chemical Characteristics of *Aedes* (Diptera: Culicidae) Mosquito in Domestic Container Habitat**

by

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**Introduction:** Physico-chemical characteristics of the breeding water containers plays a major role in determining the preference and efficiency of the breeding containers. **Objective:** The objective of the study was to analyze the physico-chemical parameters of the *Aedes* container habitat and larval productivity of the container in and around Puncak Alam, Selangor. **Methodology:** In this study, colonize containers and uncolonize containers are randomly obtained on site and have been classed into containers identity (CID). *In-situ* and *ex-situ* measurement was done to find the physical and chemical properties of the water using appropriate equipments. The parameter tested are pH, temperature, turbidity, magnesium, calcium, nitrate and phosphate concentration. **Result:** It is found that there are no significant difference between colonize containers and uncolonize containers. An *independent t-test* was used to compare the physico-chemical characteristics between the colonize containers and uncolonize containers. However, in terms of containers efficiency, rubber material based containers have shown the most promising result to serve as a breeding container compare to other type of containers. **Conclusion:** The outcome of this study shows that physico-chemical characteristics does not influence the ovipositioning of the *Aedes* mosquito thus proving that all containers containing water have the potential in becoming a breeding site for the *Aedes* mosquito.

**Keywords:** *Aedes*, physico-chemical, colonize, uncolonize, container, CID