

December 1

RESEARCH STUDY
Applied Research IV

MICHAEL T. PERIDO

CAVITE STATE UNIVERSITY Indang, Cavits

> 1998 1998

INSECTICIDAL POTENTIAL OF PSYCHIC NUT (*Jatropha curcas* L.) or TUBANG- BAKOD MIXED WITH HOT PEPPER (*Capsicum annum* L.) EXTRACT ON PECHAY

A Research Study Submitted to the Faculty of Laboratory School, College of Education of Cavite State University Indang, Cavite

In Partial Fulfillment of the Requirements in Applied Research IV



Insecticidal potential of psychic nut or tubang bakod mixed with hot pepper extract 635.4 P41 1998 R-290

MICHAEL T. PERIDO APRIL 1998

ABSTRACT

PERIDO, MICHAEL T., Applied Research IV, General Science Curriculum, Cavite State University, Indang, Cavite."INSECTICIDAL POTENTIAL OF PSYCHIC NUT(<u>Jatropha curcas L.</u>)OR TUBANG-BAKOD MIXED WITH HOT PEPPER EXTRACT ON PECHAY"

ADVISER: Josefino A.Viado

The study entitled" Insecticidal Potential of Psychic Nut (Jatropha curcas L) or tubang baked mixed with Het pepper extract on Pechay, was conducted on the backyard of the author's house. This study aimed to prove that this kind of plant has a potential to become an insecticide and prevent the damages done by the insects to the vegetable plant.

An area of 48 sq m area was used in this study. It was hoed and pulverized. The plots were maintained in order to be free from weeds and help the proper growth of the plants. RANDOMIZED COMPLETE BLOCK DESIGN was used in this study. Results showed that the plants applied with T_1 gave the highest result in terms of its average height and average weight. Plants applied with T_3 gave also the best result in terms of its percentage affected and percentage of plants survive.

TABLE OF CONTENTS

CONTENTS	H'AGE
Biographical sketch v	iii
Acknowledgment	ix
Abstract	xii
INTRODUCTION	1
Statement of the problem	2
Objectives of the study	Ą
Time and place of the study	3
REVIEW OF RELATED LITERATURE	4
METHODOLOGY	10
Materials	10
Methods	10
Land preparation	. 10
Sowing of plants	. 11
Care of the seedlings	. 11
Hardening	. 11
Transplanting	. 11
Care and management	. 12
Cultivation and weeding	. 13
Fertilization	. 13
Gathering of tubang-bakod leaves and hot pepp	oe r
fruit and extracting	. 13
Applying the solution on pechay	. 13
Harvesting	. 14

Experimental design	14
Data gathering	15
GENERAL OBSERVATION	16
DISCUSSION OF RESULTS	17
Average height of plants	17
Average weight of plants	20
Percentage of affected plants	23
Percentage of plants survival	26
SUMMARY, CONCLUSION AND RECOMMENDATINON	29
Summary	29
Conclusion	30)
Recommendation	30
LITERATURE CITED	31
FLATES	32

LIST OF FIGURES

FIGURES		PAGE
1	AVERAGE HEIGHT OF PLANTS	18
2	AVERAGE WEIGHT OF PLANTS	21
3	PERCENTAGE OF AFFECTED PLANTS	24
а	PERCENTAGE OF PLANTS SURVIVAL	27

LIST OF TABLES

TABLE		
		PAGE
1	AVERAGE HEIGHT OF PLANTS	1.5
1.a	ANALYSIS OF VARIANCE FOR TABLE 1	19
2	AVERAGE WEIGHT OF PLANTS	
2.a	ANALYSIS OF VARIANCE FOR TABLE 2	
3	PERCENTAGE OF AFFECTED PLANTS	25
3.a	ANALYSIS OF VARIANCE FOR TABLE 3	25
4	PERCENTAGE OF PLANTS SURVIVAL	78
4.a	ANALYSIS OF VARIANCE FOR TABLE 4	~~~

LIST OF PLATES

P'L.A	TES	PAGE
1	Sample of pechay plants in tre	eatment O(control) 33
2	Sample of pechay plants in tre	eatment 1 34
3	Sample of pechay plants in tre	eatment 2 35
4	Sample of pechay plants in tre	eatment 3 36
5	Insecticidal solution used in	this study 37
6	Sample of harvested pechay pla	ants in
	treatment 1, 2, and 3	348

INSECTICIDAL POTENTIAL OF PSYCHIC NUT (<u>Jatropha</u> <u>Curcas</u> L.) orTUBANG - BAKOD MIXED WITH HOT PEPPER (<u>Capsicum Annum</u> L.) EXTRACT ON PECHAY

BY

MICHAEL T. PERIDO

This research study is presented to the Faculty of the Laboratory School, Collge of Education of the Cavite State University, Indang, Cavite in partial fulfillment of the requirements in Applied Research under the supervision of Prof. Josefino A. Viado.

INTRODUCTION

Insecticides are substances or solutions used in killing insects. Insecticides are classified into two kinds, one is the ORGANIC INSECTICIDES that are formulated in factories and when used may cause the disturbance of the environment, pest resurgence, pest resistance to insecticides and lethal effects on non-target organisms. The other one is the BOTANICAL INSECTICIDES which are environmental friendly and do not cause disturbance to the environment. In using botanical insecticides, the plant part used for bio-assay are leaves, flowers, roots, stem, vine, bark, peelings, seeds and bulbs, whole plant is partly used.