

**HEALTH EFFECTS OF PESTICIDE USE IN AGRICULTURISTS
AT TAMBON KRABINOI AMPHUR MEUANG
KRABI PROVINCE IN 2007**



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A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Public Health Program in Health Systems Development

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Thesis Title HEALTH EFFECTS OF PESTICIDES USE IN
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By Paisit Boonyakawee

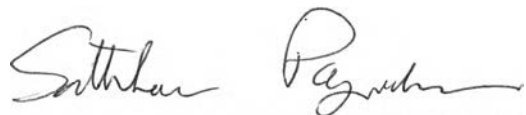
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PAISIT BOONYAKAWEE: HEALTH EFFECTS OF PESTICIDES USE IN AGRICULTURISTS AT TOMBON KRABINOI AMPHUR MEUANG KRABI PROVINCE, 2007. THESIS ADVISOR: ROBERT SEDGWICK CHAPMAN, M.D., M.P.H., 156 PP,

A cross-sectional study of 262 agriculturists was conducted in Tambon Krabinoi, Amphur Meuang, Krabi Province. Major study goals were; (1) to explore associations of pesticide-related symptom frequencies (dependent variables) with sociodemographic characteristics, occupational pesticide use, and other factors (independent variables); and (2) to explore interrelationships among pesticide-related knowledge, attitude, and practice. Using a standardized, pre-tested questionnaire, face-to-face interviews were conducted in July 2007. 134 subjects did not use pesticides, and 128 subjects used or contacted pesticides. The data were described using means, frequencies, percentages and standard deviations. Chi-square statistics were calculated to test for relationships between independent and dependent variables.

55.7% of subjects were male, average age was 47.19 years, 52.3% had education level at least pratom grade 4, 68.8% that smoked at present, 66.4% drank any kind of alcoholic beverage less than one time per month, 91.6% cultivated crops by themselves, 69.8% grew Para Rubber, 48.1% had done agriculture less than 15 years. Among the 128 subjects who used or contacted pesticides, 60.2% had used pesticides less than 5 years, 57.8% often use pesticide (1 – 3 times a year), 66.4% dissolved pesticide in water not above 50 c.c. per rai on average, 73.4% usually sprayed pesticide before 8.00 am., (43.8%) had most recently used or contacted pesticides 31 – 60 days ago. Among all subjects, 66.4% had good pesticide-related knowledge (10 – 12 points), the average knowledge score was 9.72 points. 69.1% had a medium level of attitude (37 – 47 point), the average attitude score was 44.18 points. 78.9% had good level of practice (more than 104 point), the average practice score was 109.44 points from a maximum possible of 130 points.

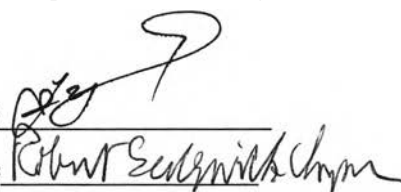
A total of 9 symptoms and symptom groups was analyzed. The most prevalent symptom was rash (45.3%). There was a tendency for symptom rates to be higher in subjects with higher or longer pesticide exposure, but this tendency was not strong. Gender, work characteristic, time duration in agriculture, type of cultivation, exposure level, duration using pesticides, pesticide use frequency, time of most recent pesticide use, and frequency of drinking alcohol were all associated with rates of one or more symptoms. Knowledge and practice in pesticide use also had limited associations with symptoms. Pesticide-related knowledge and attitude were positively associated, as were attitude and practice. However, knowledge was not associated with practice.

I recommend that the occupational health and health promotion authorities should be concerned with both knowledge and attitude, to reduce pesticide toxicity and improve pesticide management programs.

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TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	viii
LIST OF FIGURES.....	xi
CHAPTER I INTRODUCTION.....	1
1.1 Background and Rationale.....	1
1.2 Research Question.....	6
1.3 Research Objectives.....	6
1.4 Research Hypothesis.....	7
1.5 Conceptual Framework.....	8
1.6 Variable to be studied.....	8
1.7 Expected outcome.....	9
CHAPTER II LITERATURE REVIEW.....	11
2.1 Knowledge, Attitude and Practice Theory.....	11
2.2 Insecticide.....	22
2.3 Organophosphorous insecticides.....	34
2.4 Carbamate Pesticide.....	37
2.5 Related Researches.....	40
CHAPTER III RESEARCH METHODOLOGY.....	47
3.1 Research Design.....	47
3.2 Study Population and Sample.....	47

	Page
3.3 Sampling technique and sample selection.....	47
3.4 Research instrument for data collection.....	51
3.5 Pre-test for Questionnaire.....	53
3.6 Data collection.....	53
3.7 Data analysis.....	54
CHAPTER IV RESEARCH RESULTS.....	55
4.1 Descriptive statistics of dependent and independent variables.....	56
4.2 Relationship between pesticide knowledge, pesticide attitude and pesticide practice.....	67
4.3 Relationship between symptoms and independent variables.....	69
4.4 Relationship between pesticide usage agriculturists with agriculturists not used.....	101
CHAPTER V CONCLUSIONS AND RECOMMENDATIONS.....	103
5.1 Conclusions.....	103
5.2 Discussion of the results.....	108
5.3 Scope and limitation of the study.....	112
5.4 Recommendations.....	112
REFERENCES.....	114
APPENDICES.....	119
APPENDIX A Questionnaire (English).....	120
APPENDIX B Questionnaire (Thai).....	137
APPENDIX C Reliability test.....	152
APPENDIX D The food examining result of 10 food markets in municipal Krabi..	154

	Page
APPENDIX E Hazard classification of pesticides.....	155
CURRICULUM VITAE.....	156

LIST OF TABLES

	Page
Table 1: Type of plantations in Tambon Krabinoi Amphur Meuang Krabi Provinc, Meuang Krabi Agriculturists, 2002.....	48
Table 2: Relationship between exposure variables and pesticide toxicity symptoms, (From table 2 in Grace J A Ohayo-Mitoko et al., 1999 (408 subjects), table 6 in T M Farahat et al., 2002 (102 subjects), table 9 and 10 in Yassin M M etal.,2002(185subjects)).....	49
Table 3: Number and percentage of subjects by general information (n = 262).....	57
Table 4: Number and percentage of knowledge in pesticide practice of agriculturists (12 points) (n = 262).....	62
Table 5: Number and percentage of attitude in pesticide practice of agriculturists (60 points) (n = 262).....	63
Table 6: Number and percentage of practice in pesticide use of agriculturists (130 points) (n = 128).....	63
Table 7: Number and percentage of symptoms while and/or after spraying pesticide (n = 128).....	64
Table 8: Relationship between pesticide knowledge and pesticide attitude (n=262)..	68
Table 9: Relationship between pesticide practice and pesticide attitude.....	68
Table 10: Relationship between pesticide knowledge and pesticide practice.....	69
Table 11: Relationship between age and symptoms.....	70
Table 12: Relationship between gender and symptoms.....	71
Table 13: Relationship between gender and knowledge in pesticide practice.....	72

	Page
Table 14: Relationship between gender and attitude in pesticide practice.....	73
Table 15: Relationship between gender and practice in pesticide use.....	74
Table 16: Relationship between education level and knowledge in pesticide use.....	75
Table 17: Relationship between education level and attitude in pesticide use.....	76
Table 18: Relationship between education level and practice in pesticide use.....	77
Table 19: Relationship between education level and symptoms.....	78
Table 20: Relationship between work characteristic and symptoms.....	80
Table 21: Relationship between duration of work and symptoms.....	81
Table 22: Relationship between type of plantation and symptoms.....	82
Table 23: Relationship between duration of chemical practice and symptoms.....	84
Table 24: Relationship between duration of chemical practice and knowledge in pesticide use.....	86
Table 25: Relationship between duration of chemical practice and attitude in pesticide use.....	87
Table 26: Relationship between duration of chemical practice and practice in pesticide use.....	88
Table 27: Relationship between duration of chemical practice and symptoms.....	89
Table 28: Relationship between duration of chemical practice and symptoms.....	90
Table 29: Relationship between duration of chemical practice and symptoms.....	91
Table 30: Relationship between duration of chemical practice and symptoms.....	92
Table 31: Relationship between duration of chemical practice and symptoms.....	93
Table 32: Relationship between drink alcoholic and symptoms.....	94
Table 33: Relationship between smoked cigarettes and symptoms.....	95

	Page
Table 34: Relationship between mosquito coils and symptoms	96
Table 35: Relationship between used household pesticide spray and symptoms	97
Table 36: Relationship between knowledge in pesticide practice and symptoms.....	98
Table 37: Relationship between attitude in pesticide practice and symptoms.....	99
Table 38: Relationship between practice in pesticide use and symptoms.....	100
Table 39: Relationships between pesticide usage agriculturists with agriculturists not used in pesticide knowledge.....	101
Table 40: Relationships between pesticide usage agriculturists with agriculturists not used in pesticide attitude.....	102

LIST OF FIGURES

	Page
Figure 1: Conceptual framework.....	8
Figure 2: Elements of practice.....	14
Figure 3: “Health Belief Model” to predict disease prevention practice	21