

STUDIES ON THE PREDATORY EFFECT OF COCINELLID BEETLES ON APHIDS

BY

USHANANDINE NAGALINGAM

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S. Raveendranath

DR. S. RAVEENDRANATH
SUPERVISOR
DEAN /
FACULTY OF AGRICULTURE
EASTERN UNIVERSITY
CHENKALADY
SRI LANKA

T. Mahendran

DR. (MRS). T. MAHENDRAN
HEAD / DEPARTMENT OF
AGRONOMY
FACULTY OF AGRICULTURE
EASTERN UNIVERSITY
CHENKALADY
SRI LANKA

45644

DATE : 31/12/2001

DATE : 31/12/2001

Dr. S. RAVEENDRANATH
DEAN
Faculty of Agriculture
Eastern University, Sri Lanka.

Dr. (Mrs) T. Mahendran
HEAD
Dept. of Agronomy
Faculty of Agriculture
Eastern University, Sri Lanka.

PROJECT

ABSTRACT

A laboratory experiment was conducted to study the searching efficiency of three different Coccinellid beetles feeding on Aphids. This study was conducted at the Biology laboratory of the faculty of Agriculture, EUSL.

The searching efficiencies of *Menochilus sexmaculatus*, *Coccinella transversalis*, and *Micraspis discolor* were compared. Gliricidia and Cowpea plants were used as the host of Aphids. As the study showed that *M.sexmaculatus* is an efficient predator and further studies were carried out on the searching efficiency of the larval stages of *M.sexmaculatus* against Aphids collected from Cowpea and the consumption rate of males and females of *M. sexmaculatus* was also compared.

Each species of coccinellids was provided with 25 aphids, collected from different host plants, in petri dishes and the number of aphid survived was counted after six hours. The searching efficiency was calculated using *Nicholson equation* (1933).

The similar method was adopted to compare the predatory effect of larval stages of *M.sexmaculatus* and to compare the consumption rate between adult male and female of *M. sexmaculatus* on cowpea aphids.

There was no significant ($p>0.05$) difference between *M. sexmaculatus* and *C. transversalis* in their searching efficiency for *Aphis craccivora*. But the consumption rate of *M. sexmaculatus* was higher than that of *C. transversalis*. The lowest searching efficiency was observed with *Micraspis discolor*. There was significant difference ($p<0.05$) between the plant species on the searching efficiency of coccinellid species. All species showed higher consumption rate of aphids collected from cowpea plants

TABLE OF CONTENTS**PAGE**

Abstract	i
Acknowledgement	iii
Contents	iv
List of tables	vii
List of Figures	viii
List of Plates	ix

CHAPTER 1 INTRODUCTION 1**CHAPTER 2 REVIEW OF LITERATURE**

2.1 Role of food legumes	5
2.2 Biology of aphids	8
2.3 <i>Aphis craccivora</i>	9
2.3.1 Host range	10
2.3.2 Damage	10
2.4 Management of <i>A. craccivora</i>	11
2.4.1 Use of resistant varieties	11
2.4.2 Chemical control	11
2.4.3 Biological control	12
2.4.3.1 Predators	12
2.5 History of biological control	13
2.5.1 Predatory coccinellids in biological control	14
2.5.2 Successful control of insects pest using coccinellids predator	14
2.6 Classification of ladybird beetle	15
2.6.1 Appearance	16
2.6.2 Identification	16
2.6.3 Habitat (Crops)	16
2.6.4 Life cycle	
2.6.4.1 Eggs	18
2.6.4.2 Larvae	18
2.6.4.3 Pupae	18
2.6.4.3 Adult	18

2.7 Foraging behavior	19
2.7.1 Larvae	
2.7.2 Adult	
2.8 Relative effectiveness	23
2.8.1 Pesticide susceptibility	24
2.8.2 Conservation	24
2.8.3 Commercial availability	25
2.8.4 Identified species of predatory lady beetles in Sri Lanka	25
2.9 Factors influencing efficiency of coccinellids synchrony with prey	26
2.9.1 Special characteristics of ladybird beetles	27
2.9.1.1 Response of coccinellids to the density of aphids	27
2.9.1.2 Cannibalism	27

CHAPTER 3 MATERIALS AND METHODS

3.1 Collection of aphids	29
3.2 Identification of aphids	29
3.3 Collection of coccinellid beetles	30
3.4 Identification of coccinellid beetles	30
3.5 Culturing of <i>Menochilus sexmaculatus</i>	30
3.5.1 Physical environment of the laboratory	30
3.5.2 Method of culturing of <i>M. sexmaculatus</i> in laboratory	32
3.5.3 Management of beetles	32
3.6 Experiment 1	33
3.6.1 aim	33
3.6.2 Methodology	35
3.7 Experiment 2	35
3.7.1 Aim	35
3.7.2 Methodology	35
3.8 Experiment 3	36
3.8.1 Aim	36
3.8.2 Methodology	36

CHAPTER 4 RESULTS AND DISCUSSION

4.1 Identification of aphids	37
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