

## C O N T E N T S

		Page
CHAPTER - I	Introduction ..	1 - 3
CHAPTER - II	Host-plants ..	4 - 27
	A. Host-plants ..	4 - 5
	B. Feeding ..	5
	C. Infestation ..	5 - 6
CHAPTER - III	Biology ..	28 - 39
	A. Materials and methods..	28 - 29
	B. Review of literature ..	30 - 31
	C. Life-history of <u>Aphis</u> ..	32 - 37
	<u>gossypii</u>	
	(i) Date ..	32 - 33
	(ii) Results and analysis of date	33 - 38
	D. Ants attendance ..	39
CHAPTER - IV	Population studies ..	40 - 90
	A. Brinjal cultivation ..	40 - 41
	in Orissa	
	B. Materials and methods..	42 - 51
	(i) Lay out of plot ..	42 - 43
	(ii) Aphid population count	43 - 45
	(iii) Correlation of meteor- ological factors with aphid population	45 - 47
	(iv) Aphid population on brinjal varieties	47 - 49
	C. Review of literature ..	52 - 53
	D. Seasonal variation in aphid population on brinjal	54 - 71

	Page
(i) Seasons and meteorological condition at Bhubaneswar	54
(ii) Data ..	54
(iii) Results and analysis	55 - 71
E. Aphid population in relation to age of the brinjal plants ..	72 - 75
(i) Data ..	72
(ii) Results and analysis of data ..	72 - 75
F. Aphid population and brinjal varieties	76 - 86
(i) Data ..	76
(ii) Results and analysis of data	76 - 86
G. Discussion and conclusion..	87 - 90
CHAPTER - V	
Biometry ..	91 - 173
A. Materials and methods ..	91 - 97
(i) Collection, preservation and slide preparation	91 - 94
(ii) Formulae used ..	94 - 97
B. Review of literature ..	98 - 99
C. Morphology ..	100 - 127
(i) Apterous viviparous.. parthenogenetic female	100 - 112
(ii) Alate viviparous .. parthenogenetic female	113 - 121

	Page
(iii) Comparison of ..	122 - 127
important taxono- mic characters of <u>A. gossypii</u> of different places.	
a. Apterous aphid ..	122 - 123
b. Alate aphid ..	123
c. Analysis of ..	124 - 127
data	
D. Biometry of seasonal ..	128 - 149
variation	
(i) Data ..	128
(ii) Results and ..	128 - 132
analysis	
(iii) Observations and ..	132 - 133
conclusions	
E. Femur variation ..	150 - 157
(i) Data ..	150
(ii) Results and ..	150 - 157
analysis	
F. Dimorphism in aphid ..	158 - 173
(i) Data ..	158
(ii) Results and ..	158 - 173
analysis	
CHAPTER - VI      Summary ..	174 - 182
CHAPTER - VII     Acknowledgements ..	183 - 184
CHAPTER - VIII    References ..	185 - 216

APPENDIX - I	Population studies of <u>A. gossypii</u> on ladies finger (okra) varieties	..	1 - 6
	Introduction	..	1
	Materials and methods	..	1 - 2
	Results and analysis	..	2 - 6
	Summary	..	3
	References	..	3
APPENDIX - II	Population studies of <u>A. gossypii</u> on cotton (variety M.C.U.- 5 )	..	7 - 12
	Introduction	..	7
	Materials and methods	..	7 - 8
	Results and analysis of data	..	8 - 12
	Summary	..	9
	References	..	9 - 10