GAU Res. J. 1985. 10 (2) : 79-80

Ovipositional Site Preference by Green Lacewing, *Chrysopa (Chrysoperla) scelestes* Banks on Cotton and Green Gram

K. G. Patel and H. N. Vyas

Department of Entomology, College of Agriculture, Junagadh Campus, Junagadh-362 001

Of the various predators, green lacewing *Chrysopa (Chrysoperla) scelestes* Banks (Neuroptera : Chrysopidae) is one of the most important and valuable predators of economic crop pests like *Heliothis armigera*, Hubner; *Spodoptera litura*, Fabricius, different species of aphids and other sucking pest-complex of various agricultural crops. According to Kharizanov and Babrikova (1978) chrysopids were important predators of crop pests and their larvae were known to feed on over 80 species of insect pests. DeBech (1974) reported that the eggs of *Chrysopa* spp. were laid in small clusters or at random over the plant parts i.e. leaves, twigs and stems. Information on oviposition potential of various insect pests and predators is available under laboratory condition, however, the data on ovipositional site preference for insect pests as well as predators under field condition are meagre. In the present study, attempts were made to know the ovipositional site preference by green lacewing in caged plants under field condition and the results obtained are discussed in this paper.

With a view to studying the ovipositional site preference by the female green lacewing 20 cotton (125 days old) and green gram plants (60 days old) were selected at the Central Experimental Station, Gujarat Agricultural University, Junagadh during the year 1981. Five pairs of laboratory reared green lacewing adults were released on each of these plants and then covered with the help of muslin cloth cage. To determine the site preference for oviposition by the female green lacewing, the number of eggs laid on different plant parts were counted and recorded separately.

The summarised data on ovipositional site preference by green lacewing are presented in Table 1. Perusal of the results (Table 1) evidently indicate that out of 126 eggs laid by female on cotton plants. 38.39% of the eggs were laid on lower surface of leaves which was followed by branches (21.43%), upper surface of leaves (19.05%), petioles (6.35%), flowers and/or squares (6.35%), stems (5.56 %) and bolls (2.38%).

In all, female green lacewing laid 168 eggs on green gram plants. Out of these 40.48% of the eggs were laid on branches and followed by lower surface of leaves (21.43%), pods (14.29%) upper surface of leaves (10.71%) stems (5.36%), flowers (4.17%) and petioles (3.55%).

The results, thus, suggest that under field conditions, branches of green gram (40.48%) and lower surface of cotton leaves (38.89%) were the most preferred

sites for oviposition by the females of *C. scelestes* Banks. According to Debach (1974) the females of *Chrysopa* spp. preferred also plant parts viz., leaves, twigs, stems for oviposition.

(Received on 18th July, 1983)

TABLE 1

Site preference for oviposition by *C. scelestes* banks on green gram and cotton.

Sr. No.	*Plant parts*	*Green gram*			*Cotton*		
		No. of eggs observed per 20 plants		*Percentage eggs observed*	*No. of eggs observed per 20 plants*		*Percentage eggs observed*
		Total	*Average*		*Total*	*Average*	
1.	Branches	68	3.40	40.68	27	1.08	21.43
2.	Stems	9	0.45	5.36	7	0.28	5.56
3.	Petioles	6	0.30	3.55	8	0.32	6.35
4.	Upper surface of leaves	18	0.90	10.71	24	0.96	19.05
5.	Lower surface of leaves	36	1.80	21.43	49	1.96	38.89
6.	Flowers or squares	7	0.35	4.17	8	0.32	6.35
7.	Pods or bolls	24	1.40	14.29	3	0.12	2.38
	Total	168	8.25	—	126	5.04	—

REFERENCES

DeBach, P. (1974). "Biological Control by Natural Enemies, Cambridge University Press, London.

Kharizanov, A. and Babrikova, T. (1978). Toxicity of insecticides to certain species of Chrysopids. *Rastitelna Zashchita*, **26 :** 12-15 (R.A.E./A, **66:** 606).