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Fluctuation of Green Leafhopper Population in Relation to Age of Rice Crop

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A 2-year study was undertaken to know the relathionship between the green leafhopper, *Nephotettix nigropictus* (Stal.) population and age of the rise crop during *kharif* season of 1985 and 1986 at the National Agricultural Research Project Farm, GAU, Navsari. A Chinsura type light trap fitted witn a 200 W fluorescent lamp was used in the study. The trap was installed in the field growing GR 11, a susceptible rice cultivar. The catches of green leafhopper was determined at 25 days after seeding and consecutively at 15 days interval up to harvest. Simple correlation coefficient between age of the crop in days and number of green leafhopper caught was worked out by using the formula given by Panse and Sukhatme (1957).

The results revealed that there was a highly significant negative correlation between age of the crop and the population of green leafhopper as recorded on the Chinsura light trap (r = –0.97 and –0.95 during 1985 and 1986, respectively) (Table 1). The results indicated that with increase in age of the

TABLE 1

Fluctuation of green leafhopper (GLH) population in relation to age of rice crop during kharif 1985 and 1986.

Age (days)	*GLH trapped (No.)*	
	1985	*1986*
25	1150	1000
40	900	1200
55	750	800
70	500	600
85	250	300
100	150	400
115	100	50
130	50	40
'r'	–0.97**	–0.95**

** = Significant at 1% level.

crop, the population of green leafhopper decreased significantly. Dharma Reddy and Mishra (1983) also observed that the catches of green leafhopper decreased with increase in age of the rice crop in Eastern Uttar Pradesh. Similar study carried out by Kartohardjono (1984) for whitebacked planthopper indicated that the population of the pest peaked at 62 days after transplanting and then decreased. Gunathilagaraj and Chelliah (1984) also reported that the population of whitebacked planthopper was largest between 70 and 90 days after transplanting. The present study indicated that green leafhopper thrived better on succulent crop rather than study crop. Hence, measures for controlling green leafhopper would work efficiently if taken at the younger age of the crop when initial build up of the pest is high.

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