

Short communication

Population fluctuation studies of tea mosquito (*Helopeltis antonii* Sig.) on cashew and its relation with weather parameters*

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Pest menace is one of the major yield limiting factors in cashew production. Though more than sixty pests have been reported on cashew (Pillai, 1980), the tea mosquito, *Helopeltis antonii* S. is considered to be number one enemy (Nair and Sharma, 1979) causing considerable reduction in yield. The nymphs and adults suck the sap from tender shoots, inflorescence, immature nuts and apples. The infested shoots develop black lesions resulting in gradual drying.

The average damage to tender shoots was estimated from 14 (Sathiamma, 1977) to 25 per cent (Abraham, 1958, Pillai, 1980). Similar type of damage to inflorescence results in blossom blight and as much as 48.5 per cent panicle damage was reported by (Sathiamma, 1977). Since, no information is available on its seasonal distribution under Konkan region of Maharashtra, the present study was carried out for consecutive four years i.e.

1982-83 to 1985-86 at Regional Fruit Research Station, Vengurle, Dist. Sindhudurg, Maharashtra.

A block of twenty five trees of variety Vengurla-1 was kept unsprayed throughout the experimental period. For recording observations, five trees were selected randomly and twenty five fresh shoots/ panicles were selected at random from each observational tree. The observations were recorded at fortnightly interval throughout the period. The fresh shoots/panicles i.e. free from infestation were tagged for subsequent observations and per cent shoots/panicle damaged were worked out. The meteorological observations on maximum temperature, minimum temperature, relative humidity and rainfall were also recorded and simple correlation between these weather parameters and per cent tea mosquito incidence were studied.

It is evident from the data (Table 1)

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Table 1 : Seasonal incidence of tea mosquito *Helopeltis antonii* S. on cashew.

Months	Percentage of incidence			
	1982-83	1983-84	1984-85	1985-86
June	1.25	3.50	0.00	0.00
July	0.75	2.00	0.00	0.00
August	6.50	1.00	0.00	0.00
September	10.75	0.00	0.00	0.00
October	10.00	0.00	0.25	0.00
November	11.00	12.00	2.00	4.50
December	22.50	22.50	3.75	18.50
January	13.50	4.00	0.00	16.75
February	4.00	10.50	0.00	16.75
March	2.50	2.00	0.00	16.00
April	1.00	1.00	0.00	13.50
May	0.50	0.00	0.00	2.75

that the outbreak of tea mosquito was noticed on sporadic vegetative flush of June-July during 1982-83 and 1983-84. However, the major out break was observed in the month of November coinciding with emergence of panicles and reached its peak in December during all the four years. No correlation was observed in case of maximum temperature, relative humidity and rainfall. However, the minimum temperature was found to be negatively correlated with pest incidence. The pest incidence increased with decrease in minimum temperature. Results also revealed that the pest was very active from October to January. Pillai *et al.* (1978) observed that the population build up commenced in October-

November synchronizing with emergence of new flush. Similar observations were reported by Nair and Sharma (1979). While, Rai (1981) reported a major out break during January-March in coastal Karnataka. In the present study, the incidence was also observed during monsoon in 1982-83 and 1983-84, these observations are in conformity with Sathiamm (1977) but contradictory with Pillai *et al.* (1978) who reported that the population was totally absent from June to September.

On perusal of the above study, it is evident that the population build up of tea mosquito commenced with emergence of new flush during October-November after the cessation of

monsoon shower and it remained in field till January. Hence, the spray schedule should be advocated during October-November to January coinciding with emergence of new flush, flowering and at fruit set.

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