

The Bionomics and Control Measures of Tobacco Bug *Nesidiocoris tenuis* Reuter (Miridae : Hemiptera).

Submitted to Gujarat Agricultural University
1975

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Nesidiocoris tenuis Reuter is becoming serious pest of tobacco in this region. The available literature on this pest reveals only general information about this pest. Search of the host plant was made and it is possible to record it on bottle gourd (*Lagenaria leucantha*) and tomato (*Lycopersicon esculentum*) in addition to tobacco. Description of various instars including egg have been given in detail. The external morphology of head, thorax and abdomen and their appendages has also been described. Method of sexing and mating behaviour of the adult has been described.

The female bug lays 2 to 10 eggs with an average of 5.96 ± 1.92 eggs. The pre-oviposition, oviposition and post oviposition periods of the females were 0 to 3, 1 to 7 and 0 to 4 days with an average of 1.44 ± 0.91 , 4.48 ± 1.57 and 0.76 ± 1.04 days respectively. Studies on the duration of egg stage have been made at varying room temperature and at controlled temperature. At different levels of relative humidities the incubation period of the egg vary. It was found that the incubation period was minimum (3.94 days) at 70% R.H. while it was maximum (11.60 days) at 30% R.H. The duration of different nymphal instar at varying room temperature and at constant temperature was also studied.

The longevity of adults was more in case of female compared to males. Low temperature

accompanied with higher humidities prolonged the duration of adults.

The entire life-span was on an average 31.34 ± 2.0 days at varying room temperature of $26.5 \pm 4.18^\circ \text{C}$ while at varying temperature of $22.8 \pm 3.65^\circ \text{C}$ it was 32.5 ± 2.7 days. At a constant temperature of $31 \pm 1^\circ \text{C}$ the entire life-span was completed within 29.3 ± 2.45 days.

Both, nymphs and adults of this bug prefer inflorescence to the rest of the whole plant. It was found that 83.5 per cent of the bugs are confined to inflorescence, 9.6 per cent to the top levels, 6.0 per cent to the middle leaves and 0.9 per cent of the total bugs present on the plants were confined to the bottom leaves. Seasonal incidence of this pest was found to be maximum during the months of December to May (100 per cent infestation). Studies on predatory habits of the bugs revealed that it can very well feed on the eggs of tobacco stem borer *G. heliopa* and eggs and first instar larvae of tobacco leaf eating caterpillar *Spodoptera litura*. It feeds on least extent on the eggs of *Heliothis armigera*.

Also four hundred and twenty two CTRI cultures and two hundred and seventy four BTRS cultures were screened for their possible tolerance/susceptibility to the bugs. It is also interesting to note that *N. glauca* was completely free from the presence of the bugs.

Five field experiments were conducted to control the bugs. Nineteen insecticides were screened for the purpose and it was found that methomyl 0.0125% and aldicarb @ 5 kg/ha (1 g/plant) were the most effective insecticides so for the economics is concerned it is found that aldicarb @ 5 kg/ha is the cheapest insecticide, next in order of cheapness being methomyl 0.0125% and these two can be recommended to those concerned in tobacco seed production.