# CHEMICAL CONTROL OF TEA MOSQUITO BUG (Helopeltis antonii Sign.) IN CASHEW AT GOA.

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The tea mosquito bug, **helopeltis antonii** Sign. (Heteroptera: Miridae) is one of the major pests of Cashew in Goa Territory (Sundararaju, 1979). The adults and immature stages of this bug suck sap from tender shoots, leaves, floral branches, developing nuts and apples. As a result of infestation, the affected shoots, floral branches and other tender parts dry up. The reduction in yield caused by this pest to the extent of 30 to 40% was reported by Desai *et al.*, (1977) in this territory. At present, as chemical control is the only effective practical approach to keep the pest infestation under check, a chemical control trial with different insecticides was conducted and the results obtained from the same are discussed in this short paper.

## Materials and methods

One field experiment was conducted during 1981-82 at Goadengrem, Canacona taluka in 10 years old Cashew plantation of the Goa Forest Department. There were seven treatments viz, endosulfan, monocrotophos, quinalphos, formathion, phosalone, fenthion all at 0.05%(a.i.) concentration, and untreated control in RBD with three replications. For each treatment, eight trees were selected and three rounds of sprayings at monthly intervals were given from the last week of November, 1981 onwards with a rocker sprayer. The pre-treatment counts before the first spray and the post-treatment count one month after the third spray were taken on three trees selected randomly per treatment. The total number and damaged shoots and panicles in four branches selected on all the four sides of each tree were counted and percentage of damage worked out. The transformed values of the percentage of damage were statistically analysed.

## Results and discussion

The data on shoot and panicle damage are presented in Table I. The data on shoot damage revealed that endosulfan and monocrotophos were superior by recording minimum damage of 14.6 and 20.6%, respectively, followed by phosalone and quinalphos.

With regard to panicle damage, endosulfan, monocrotophos, quinalphos and phosalone were found to be superior to the other treatments by recording the lowest damage of 9.4, 19.3, 19.8 and 22.4% respectively, whereas the untreated control trees recorded higher intensity of 71.5 and 54.0% of shoot and panicle damages, respectively. The trend of results indicate that next to endosulfan, other insecticides such as monocrotophos, quinalphos, phosalone were also effective in reducing tea mosquito infestations.

TABLE

*Effectiveness of Different Insecticides in the Control of tea Mosquito Infestation*

| Treatments | Pre-treatment | Post treatment (%) Shoot damage | Post treatment panicle damage (%) |
|---|---|---|---|
| Endosulfan 0.05% | 28.3 | 14.6 (22.37) | 9.4 (17.58) |
| Monocrotophos 0.5% | 21.7 | 20.6 (27.00) | 19.3 (25.78) |
| Quinalphos 0.05% | 24.7 | 29.6 (32.78) | 19.8 (25.76) |
| Formothion 0.05% | 23.9 | 45.3 (42.61) | 59.2 (50.68) |
| Phosalone 0.05% | 18.6 | 26.7 (31.05) | 22.4 (27.97) |
| Fenthion 0.05% | 27.0 | 28.0 (37.87) | 41.9 (40.10) |
| Control . . | 27.2 | 71.5 (57.96) | 54.0 (47.30) |
| C.D. 5% | | (8.50) | (12.95) |

(Figures in parentheses are the transformed values)

## Summary

Six insecticides, viz., endosulfan, monocrotophos, quinalphos, formothion, posalone, fenthion at 0.05% concentration were evaluated against tea mosquito bug in cashew during 1981-82 season. Among all the insecticides tried endosulfan recorded least shoot and panicle damage. Next to this, monocrotophos, quinalphos and phosalone were also found to be promising.

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