

INCIDENCE OF BARK-FEEDING CATERPILLAR *AETHERASTIS CIRCULATA* MYER ON RUBBER (*HEVEA BRASILIENSIS* MUELL. ARG.)

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A field trial was carried out in Kerala, India, in 1983 to evaluate the effectiveness of dusts containing 10% BHC [HCH], 2% parathion-methyl, 5% malathion and 5% carbaryl applied at 15 kg/ha against larvae of *Aetherastis circulata* feeding on the bark of rubber. Parathion-methyl was the most effective treatment, reducing the larval population by 98.52%, while carbaryl, HCH and malathion reduced the population by 95.6, 7.1 and 74.3%, respectively. No fresh damage by the pest was observed 30 days after treatment. On the basis of the results, parathion-methyl is recommended for control of the pest.

Aetherastis circulata Meyr. (Yponomeutidae : Lepidoptera) the bark-feeding caterpillar which was considered to be of minor importance (Radhakrishna Pillai, 1968) and of sporadic nature, appeared as severe epidemic on rubber especially in the Southern Districts of Kerala and K.K. District of Tamil Nadu in the year 1980. The pest was found active throughout the year feeding on different alternative host plants such as *Macaranga peltata*, *Michaelis champaka* and *Terminalia* spp., but was most active on rubber from October to May (Nehru, 1983). The bark-feeding caterpillars build galleries on the trunk with chewed bark, faeces, and silk and live within. They feed on the bark on all parts of the trunk and branches and latex oozes out from certain points where they feed deeper. These points facilitate the easy entrance of pathogens causing diseases of the rubber bark like canker and bark rot (Jayarathnam, 1980).

During 1983, a field trial was conducted to evaluate the comparative effectiveness of four insecticides as dusts viz. BHC 10% Dust, Methyl parathion 2% Dust, Malathion 5% Dust and Carbaryl 5% Dust @ 15 kg/ha against the bark-feeding caterpillar infesting rubber at Shaliacary Estate, Punalur, Kerala State. In all there were 5 treatments including control and each was replicated thrice. The plot size was 1250 m², the spacing provided between two adjacent plots was 30 m. There were 15 plots, each with 50 trees. Pre-treatment and post-treatment population counts were recorded after sampling 20 trees from each plot. All the insecticidal dusts

reduced the larval population significantly over control. Dusting of methyl parathion proved to be most effective recording 98.52% reduction in larval population and the corresponding reduction for carbaryl, BHC and malathion was 95.96%, 77.14% and 74.31% respectively. Control plots registered only 10.09% reduction in larval population. It is observed that even after 30 days from the date of treatment, there was no fresh damage to rubber on account of the bark-feeding caterpillar in the insecticide treated plots. This is the first report of a field trial conducted for the control of the bark-feeding caterpillar infesting rubber in India. Considering the overall efficacy and cost of control, methyl parathion can be recommended for the control of this pest. Effective and economic plant protection measures, therefore, need be explored and adopted if this crop is to be protected from the bark-feeding caterpillar.

ACKNOWLEDGEMENT

The authors are thankful to Dr. M.R. Sethuraj, Director, Rubber Research Institute of India for providing facilities for these investigations.

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(Received : 9-2-1984)