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# FIELD EVALUATION OF SOME NEWER INSECTICIDES AGAINST BARK FEEDING CATERPILLAR *AETHERASTIS CIRCULATA* INFESTING RUBBER

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Effectiveness of five insecticidal dusts (carbaryl, fenvalerate, HCH, methyl parathion and quinalphos) was evaluated against the bark-feeding caterpillar, *Aetherastis circulata* Meyr. feeding on the bark of *Hevea braziliensis*. All the insecticidal applications were significantly superior to control. Fenvalerate, methyl parathion and quinalphos proved to be more effective in relative performance. The most effective and low toxic fenvalerate is recommended for the control of this pest.

*Key words:-* *Hevea brasiliensis*, Pest control, *Aetherastis circulata*, Fenvalerate, Methyl parathion, Quinalphos, India.

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## INTRODUCTION

In recent years *Aetherastis circulata* Meyr. (Yponomeutidae: Lepidoptera), the bark-feeding caterpillar which was considered to be of minor importance and of sporadic nature, appeared as a severe endemic pest on rubber, especially in Trichur district of the central Kerala region, in addition to their occurrence in the Southern districts of Kerala and Kanyakumari district of Tamil Nadu (Nehru *et al*, 1983; 1987). First reference about this pest was made by Ramakrishna Iyer (1938). It was generally observed that high rainfall had an adverse effect on the incidence of bark feeding caterpillar, and low rainfall or absence of rain always favoured increase of pest population. The pest was found active throughout the year feeding on different alternative host plants such as *Macaranga peltata*, *Michaelia champaca*, *Terminalia catappa*, *Delonix regia*, *Moringa oleiefera* and *Mangifera indica* but was most active on rubber from October to May (Nehru *et al*, 1987). The caterpillars build galleries on the trunk and branches with chewed bark, faeces and silk and live inside. They feed initially on the dead corky bark. The final instar caterpillars feed deeper to pupate and latex oozes out from these points. These points, from where latex oozes, facilitate easy entry of fungal pathogens during rainy season, causing bark diseases like canker and bark rot (Jayarathnam, 1980). Of the two common species of bark feeding caterpillars infesting rubber, *Aetherastis circulata* is more severe and abundant than *Ptochoryctis rosaria*. Severe incidence of *Aetherastis circulata* was continuously recorded even in high rainfall belts of rubber since 1980 due to the occurrence of prolonged drought in consecutive years. Severe incidence