ACROCERCOPS ZYGONOMA MEYRICK AS A PEST OF MANGO IN KERALA

Acrocercops zygonoma Meyr (Gracillaridae: Lepidoptera) was reported from India as a pest of cotton by Fletcher (1920). This was noted for the first time as a serious pest of mango in Kerala in the Agricultural College Farm, Vellayani, in 1964. The caterpillars were found to make extensive mines in the bark covering the greater part of the tender shoots and petioles of the leaves. Two or three thin loosened layers of the bark were seen on the surface of the infested shoots (Fig. 1). The attack also caused drying up and abscission of the leaves and gradual death of the shoots; the flowering and fruiting rapacities of the trees ultimately suffered a set back.

The moth (Fig. 5) measuring 7 mm in wing expanse and 3·5 mm in length laid flat-scale like eggs on the surface of the tender shoots. The larvae hatching out of the eggs entered directly into the bark. The full grown larva (Fig. 2) was 6 mm long, yellowish, broadest in the thorax with light brown head and intersegmental constrictions. It pupated in any depression (Fig. 3) on the lower surface of the leaves, the sides of the mid-rib and the thick veins being usually preferred. Pupation took place under thin silken web (Fig. 4). The pupal period lasted for 7-8 days.

Considering the serious nature of the pest infestation a control trial using some of the common insecticides (Table I) was undertaken. Each insecticide was sprayed on one mango tree (which constituted a plot) when the new shoots showed small mines on them indicating commencement of the infestation. Results were assessed by counting from a randomly selected lot of 100 shoots those shoots on which the initially observed mines had spread and on which the living larvae were present. The counts were made 7 days after spraying. An unsprayed tree served as control. The trials were conducted twice; the results are given in Table I. DDT is seen to be the most effective insecticide for controlling the pest. Parathion though inferior to DDT is superior to diazinon and endrin, the latter two being equally effective.

Table 1

Number of shoots with living larvae of A. *zygonoma* on trees under various insecticide treatments.

Insecticides		Number of shoots percent)
DDT	0·2%	13·0
Parathion	0·05%	25·0
Diazinon	0·05%	35 0
Endrin	0·05%	38·5
Control		66·0
CD.	6·7	

Note: All insecticides were used as emulsions prepared from proprietory emulsifiable concentrates.

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Reference

Fletcher, T. B. 1920. Life Histories of Indian Insects-Microlepidoptera *Mem. Dep. Agric India*, 6 9 : 212-213.

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