

# MALATHION EFFECTIVELY CONTROLS THE COCONUT LEAF EATING CATERPILLAR

By B. Sathi Amma† and Chandy Kurian\*

*Nephantis serinopa* M., commonly known as the coconut leaf eating caterpillar, causes severe damage to the coconut palm by feeding on the green tissues of the foliage. The larvae remain hidden in galleries on the ventral side of the leaflets and feed on the tissues. Infestation by the pest is usually found on the outer and middle rows of leaves.

The attack by the pest, except in rare cases, is confined to the coastal and backwater belts. Mechanical method of cutting and burning the infested fronds, spraying the infested palms with insecticides and the biological method of control by releasing the natural enemies are the measures adopted for the control of the pest. Nirula recommended 0.2 per cent DDT

spray for the successful control of the pest under field conditions. The present article reports on the results of a small scale field experiment on the comparative efficacy of Malathion and DDT in the control of the caterpillar.

Details regarding the insecticides used for the experiment are given below:-

## Insecticide

DDT

## Formulation

50 per cent  
wetable powder

## Firm from which obtained

M/s. Imperial Chemical Industries,  
(India) Private Ltd.,  
P. B. No. 130, Madras-1.

Malathion

25 per cent wettable powder

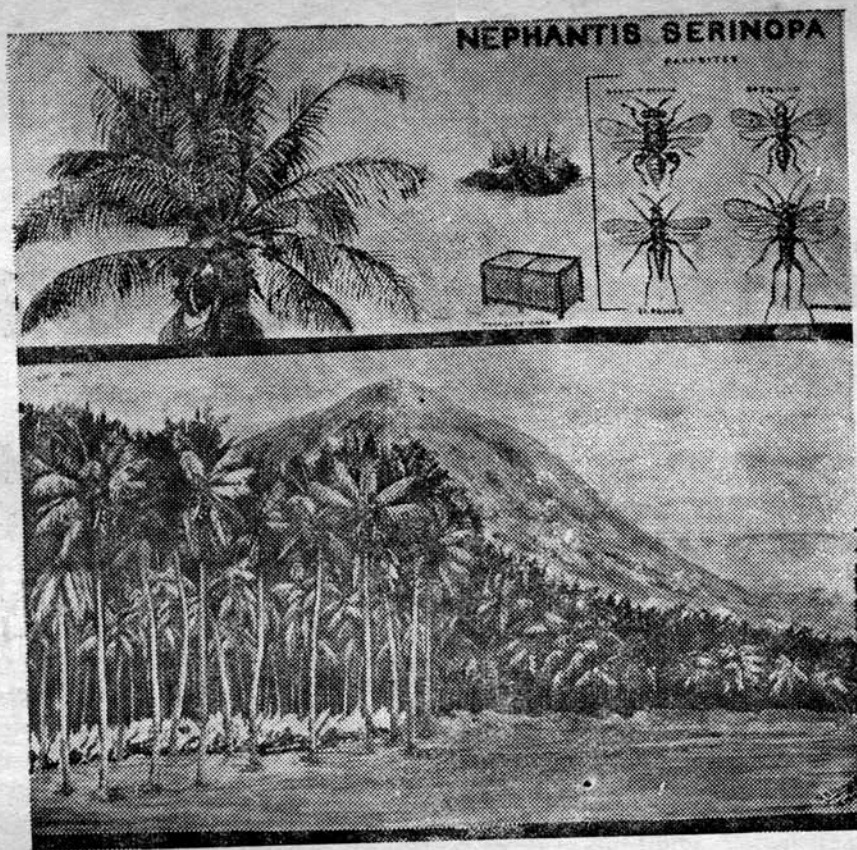
M/s. Cyanamid India Ltd.,  
Regd. Office the International 16,  
Queens Road, P. B. No. 1994,  
Bombay - 1.

Insecticides were suspended in water at the rate of Malathion 9gm. and DDT 18 gm. in 4.5 litres of water in order to obtain 0.05 and 0.2 per cent concentration respectively. The insecticides were first mixed with a small quantity of water so as to form a paste and then required quantity of water poured into the paste and stirred.

These suspensions were sprayed uniformly on the lower surface of the leaflets of all the leaves particularly those in the middle and outer whorls, so that the larval galleries could get a thorough drenching by the insecticidal suspension, without allowing the spray-fluid drip. Spraying was done with a Gator Rocker Sprayer. Two

and a half litres of the suspension was used for spraying one palm. Treatments were done at three months interval in May, August and November. Data collected on the number of pest present on the leaflets, of the treated as well as untreated palms, gave the following results:-

\* ++ Central Plantation Crops Research Institute, Regional Station, Kayangulam.



- a) Parasites of Nephantis
- b) The attack is confined to backwaters

1. A decrease in pest population was observed in the treated plots in June and November, during which period the untreated control presented an increase in pest population of double the initial count.

2. The treatment in August had little effect in reducing the pest, probably due to the rains that followed the insecticidal application.

3. Malathion proved equally effective as DDT in the control of the pest.

4. Considering the cost (calculated according to the price during 1965-66) and quantity of insecticide required, DDT works out to 6 ps. (10 gm.) and Malathion to 5 ps. (5 gm.) per palm per treatment.

5. When compared to DDT,

Malathion has little residual toxicity and is least harmful to the beneficial parasites and predatory fauna of the pest. This property of the insecticide can also be taken advantage of in the field control of the pest. Malathion may be considered as an alternative insecticide for the control of the leaf eating caterpillar.