

SPINDLE BUG OF ARECANUT AND ITS CONTROL

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The author Shri V. A. Abraham, Assistant Toxicologist, Central Plantation Crops Research Institute, Regional Station, Kayangulam, Kerala received the 1975 Independence Day Award of the National Research Development Corporation for inventing the device to apply granular insecticides described in this article. The project on the control of arecanut spindle bug was assigned to him during 1971 and the present invention is the result of his unstinted efforts in the line combined with an imaginative approach to the problem.

Among the various pests of arecanut palm, the spindle bug (*Carvalhoia arecae*) play an important role. This pest is seen throughout Kerala, Southern parts of Karnataka and certain regions of Tamil Nadu. The infestation due to this pest is severe in South Kerala. The immature young ones and the adults are seen damaging the spindle leaf. They colonise in the innermost two leaf-axils and suck sap. They thrust their needle like mouth part into the soft spindle leaf and inject saliva into the tissue before sucking the sap. The toxic materials contained in the saliva destroy the plant cells in and around the feeding puncture. Such injuries later on develop into necrotic lesions. These lesions dry up and in case of severe infestation numerous lesions are seen. The net result of such damage is stunted growth, short leaves, poor health and reduction in yield. About 25% loss in yield is reported. In South Kerala about 87.5% of the gardens are infested.

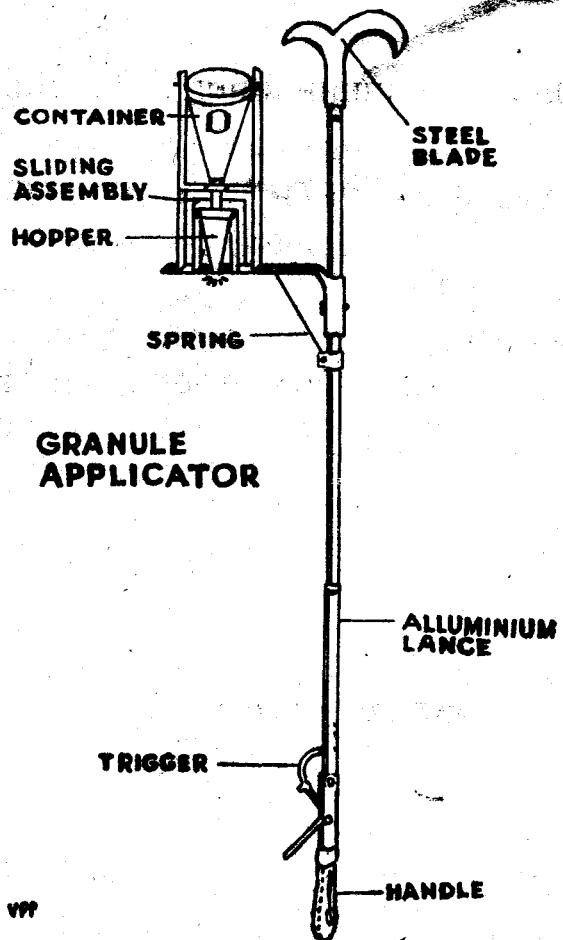
The adult is a small bug with 5 mm length and 3 mm width in body size. They are reddish in colour but the posterior part of the wings are black. They insert their egg deep into the leaf tissue. Young, reddish, ant like nymphs emerge from the eggs. They pass through five nymphal stages to become adults. The shape of the body of nymphs are almost similar to that of adults except for the wings. Both adults and nymphs are seen in colonies and they hide themselves in the leaf axils.

Spraying of BHC or Endrin 0.1% is recommended for the control of spindle bug.

The pest is most abundant in tracts with heavy rainfall and due to washing off the insecticide expected results are not achieved usually. To overcome this difficulty granular formulations of insecticides were tested. Insecticide was filled into the innermost two leaf axils where the pest colonises.

It was found that Phorate 10G, when filled into the leaf axils gave satisfactory control of the pest.

It is very difficult to climb over the crown of the palm due to its slippery nature. Hence it was felt necessary to devise an instrument to help the farmers to implement the recommendation without difficulty. With this in view an instrument was devised and got fabricated. This instrument—the insecticide granule applicator was found quite useful for the purpose.



Granule Applicator

