

SEVIN CONTROLS RED - PALM WEEVIL AT LOW COST

By

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Introduction:

The red-palm weevil attack on coconut palm is a serious threat to coconut cultivation in many parts of Kerala. This tissue borer causes considerable damage and eventually kills the palm, more often in the prime of its youth.

Since 1956 the use of one per cent Pyrocon-E 2/20 at 1 000 to 1,500 cc. per infested palm has been recommended as an effective control measure. This insecticide is often not available in sufficient quantities, and is also expensive. The cost of the insecticide alone comes to 55 paise to 83 paise per injection.

This necessitated search for another cheap and easily available insecticide possessing desirable qualities such as non-toxicity to human beings, domestic animals and host plants, easiness to store, transport and handle and effectiveness in field operation.

Experiments have been in progress since 1956 at the Central Coconut Research Station, Kayangulam, with this objective in view. It is the purpose of this note to

announce to the farmers the discovery of another insecticide which fulfills nearly all the above conditions.

Experiment

Several insecticides have been tried in the laboratory and field. Nevertheless, most of them failed in one pre-requisite or the other of a worthy recommendation. However, trials with Sevin have given encouraging results.

Result:

In the laboratory, one per cent Sevin produced cent per cent knock down plus mortality of grubs of red-palm weevil on the first day. None of the paralysed grubs regained normalcy afterwards, but succumbed to the initial hit. The average percentage kill was 44 on the first day; 84 on the third and 98 on the fifth.

In the field, 14 out of 15 naturally infested palms treated with one per cent Sevin survived. The cost of insecticide per injection (1,000cc) works out to 28 Paise to 42 Paise.

Telodrin was also equally effective at 0.5 per cent concentration

both in the laboratory and field. It is however, high toxic to mammalia and its cost comes to 49 Paise per injection.

Details about the insecticides

Sevin (Carbavin) is available from M/s. Union Carbide India Ltd., Industrial Production Division, Chordia Mansion, 150-A, Mount Road, P. O. Box No. 353, Madras-2 as "Carbaryl" 50 per cent water dispersable powder at Rs. 14 / kg. Twenty to thirty grams of the insecticide suspended in 1,000 cc. to 1,500 cc. water will give the recommended concentration. The commercial formulation is pink in colour and is odourless. The active chemical ingredient contained is 1-naphthyl N-methyl carbamate.

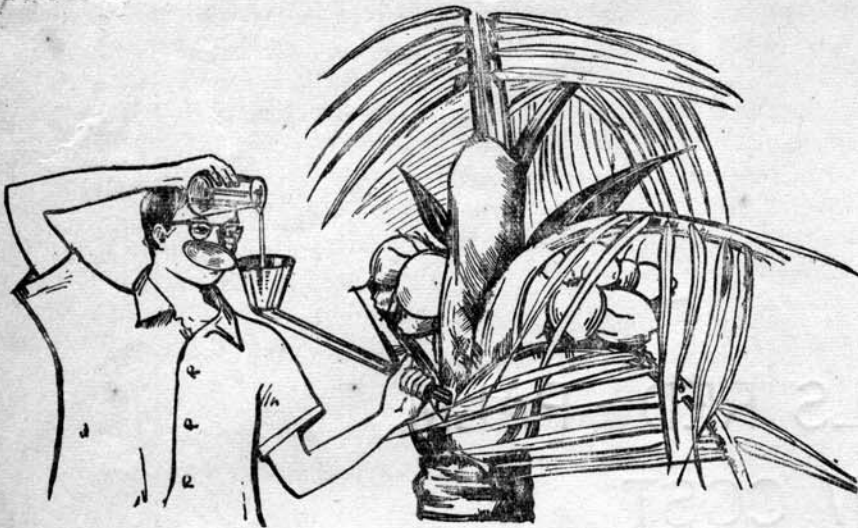
Pyrocon-E is sold by M/s. Bombay Chemicals (Private) Ltd., 129, Mahatma Gandhi Road, Bombay and is a plant product. The recommended dose is 10 to 15 cc. in 1,000 to 1,500 cc. of water per tree and is available at Rs. 55 per litre.

Telodrin is a product of the Burmah Shell and is chlorinated hydro-carbon. It is marketed as 15 per cent w/v. emulsion concentrate.

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human beings nor does it damage the host plant. Sevin can be a good alternative insecticide for Pryocon.



Sevin is injected through a bent funnel

Injection process:

As in the case of Pyrocon, Sevin may be injected through a bent conical funnel, the tapering end of which may be introduced into a hole bored by means of an auger at a point above the level up to which infestation has progressed.

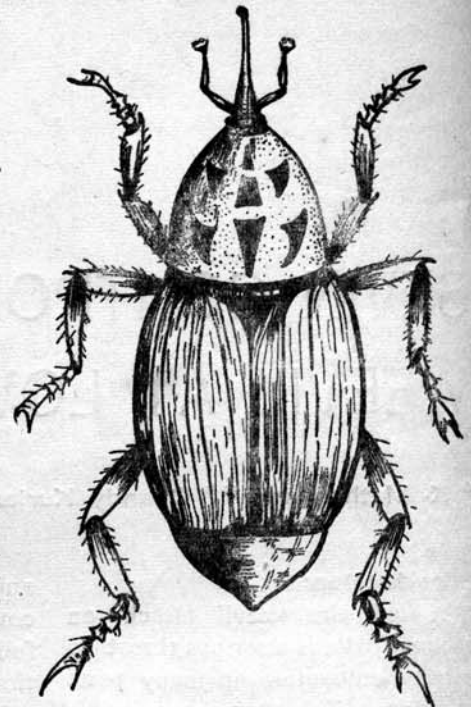
When the entry of the pest has been through stem, leaf axil or out-end of leaves, Sevin may also be injected through the uppermost hole on the stem. The lower holes should be closed by cement or sticky mud. The insecticide should be poured into the funnel and allowed to percolate by gravitational force. After percolation the hole should be closed.

One important point to be borne in mind is that the insecticide is a contact/stomach poison. No efforts should be spared to make sure that the chemical reaches all the pests within the tree. This is ensured by administering the injection all round the stem at three or four different points. The chemical then reaches all grubs and adults present in ramifying chambers produced by the feeding grubs.

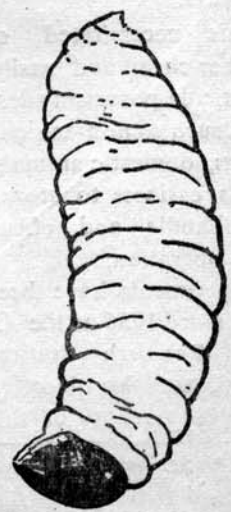
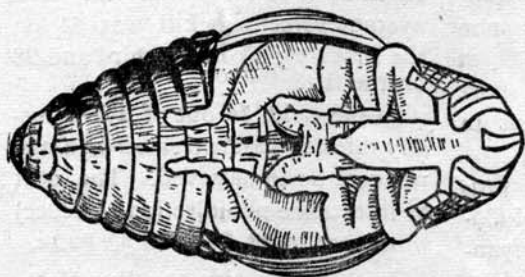
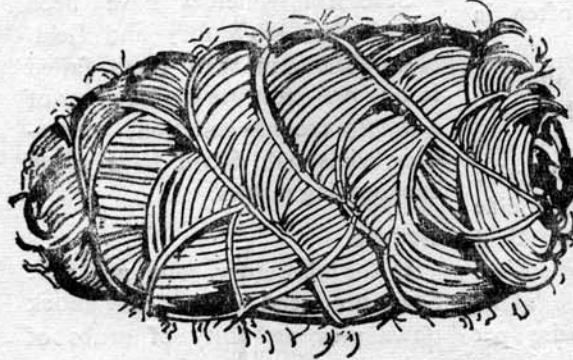
When the infestation is from the top the spindle should be cut first and removed down to the level of feeding. Then the crown should be well cleaned and the insecticide poured down to reach any egg, grub, pupa or adult that might come to rest at the top during the operation.

Summary:

Sevin (Carbary) or "Carbavin" controls red-palm weevil infestation in coconut palm. 20 to 30 grams of 50 per cent W. D. in 1000 cc. to 1500 cc. water is the recommended dose per infested tree at a time. The cost of insecticide works out at 28 paise to 42 paise only per injection. Neither is Sevin toxic to



A full grown Red-palm weevil



Life cycle of a Red-plam weevil