

Coconut Research Board



Leaflet No. 50

ESTATE MANAGEMENT AND PEST CONTROL

The importance of preventing pest damage needs no emphasis. It is sometimes possible to prevent pest infestations by taking simple precautionary measures which can be carried out as routine management practices in coconut estates. These are described in this leaflet.

The following pests are found in most coconut growing areas and cause considerable damage to coconut: the Coconut Caterpillar, *Nephantis serinopa* Meyr.; Termites, *Odontotermes* Sp.; the Red Weevil, *Rhynchophorus ferrugineus* F.; the Coconut Scale, *Aspidiotus destructor* Sign.; and the Black (Rhinoceros) Beetle, *Oryctes rhinoceros* L. The control methods for these pests are given in C.R.I. Advisory Leaflets 34, 35, 37, 38 and 39 respectively.

The Nettle grub, *Parasa lepida* Cram., and *Natada nararia*; the Bagworm, *Psyche albipes*; and the Spotted Locust, *Aularchis miliaris*; occasionally attack coconut palms and seedlings and may be considered to be of minor importance. C.R.I. Advisory Leaflet No. 40 gives the control methods for these pests.

Rats, bandicoots and porcupines attack seedlings; rats and bats attack tender nuts of palms. The control methods for these pests are indicated in Leaflet No. 29.

I. REGULAR SURVEYS OF YOUNG PALMS

1. A survey of palms below 12 years of age should be carried out regularly, about once every 4 weeks at least, by trained labourers to detect the presence of pests in the early stages of attack. Leaflet No. 52 gives a 'key' to the identification of pests, diseases and disorders of palms. Using this key, growers should be able to identify pests by examining the different stages of the pests themselves and or the damage caused. When a pest is detected it should be controlled as indicated in the relevant C. R. I. Advisory Leaflet.

2. By inspecting young palms it should be possible to spot wounds on the trunks, petioles etc. Tar should be applied on these wounds; this is to prevent the Red Weevil from laying its eggs on them. One application of tar may be insufficient and it is necessary to apply tar until the wound dries up. If the trunks of young palms are very large they tend to split, and the wounds thus caused are very attractive to the Red Weevil and special care should be taken to tar these wounds.

3. It is necessary to treat all wounds caused by Stem Bleeding with Bordeaux paste as described in Leaflet No. 33, because it is observed that Stem Bleeding on young palms can be followed by Red Weevil attack.

4. A census of palms showing Black Beetle damage should be taken as these palms are particularly susceptible to Red Weevil attack. It is found that the Red Weevil lays eggs in the crown region of palms attacked by the Black Beetle.

5. Black Beetles found in the crowns of young palms should be extracted with a metal hook.

II. REGULAR SURVEYS OF ADULT PALMS

A census of all adult palms should be taken at periodic intervals and any pest diseases and damage noted. Affected palms should be treated as described in the Advisory Leaflets. Palms which are beyond recovery should be cut and burned.

III. ESTATE SANITATION AND DESTRUCTION OF BREEDING GROUNDS

1. It is observed that damage by rats, bandicoots and porcupines can be very severe on estates which have a heavy weed growth, husk and rubbish heaps, rotting trunks, fallen fronds etc. These pests breed under these conditions and it is therefore necessary to control weeds and maintain a high degree of estate sanitation.

2. The Black Beetle breeds in (organic) manure heaps, rubbish and coir dust heaps and in rotting coconut logs and stumps. Manure heaps should be examined periodically and the Black Beetle grubs collected and destroyed.

IV. DISPOSAL OF COCONUT LOGS & STUMPS

Decaying coconut logs and stumps are ideal breeding grounds for the Black Beetle.

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If old palms are killed by using a chemical (such as "Atlas-Tree-Killer") each palm should be cut down as soon as the crown has fallen and trunk disposed of before it begins to decay.

Coconut logs should either be turned into rafters etc. or burned.

Coconut logs should *not* be used as fence posts. Every attempt should be made to remove and destroy coconut boles.

V. RED WEEVIL TRAPS

The use of the Red Weevil trap described in Leaflet No. 37 is advocated.

Prepared by the Crop Protection Division, Coconut Research Institute.

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