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# COCONUT RESEARCH BOARD



Leaflet No: 39

## THE BLACK BEETLE PEST AND ITS CONTROL



## THE BLACK BEETLE PEST AND ITS CONTROL

The Black beetle (also called the Rhinoceros beetle), Oryctes rhinoceros L., is a pest on coconut palms, in all coconut growing areas in Ceylon. The characteristic damage commonly found on the foliage of adult palms is not fatal to the palm. The pest is found to breed heavily near fibre mills. Consequently, plantations near fibre mills could receive heavy damage. Fatal attacks on young palms have been observed where the pest has been breeding in abundance within the plantation.

### Description of the insect and its stages

The beetle is brownish black or black in colour, about 38 m.m. (1.5 inches) long and about 25 m.m. (1 inch) wide. It bears a prominent backwardly directed tapering horn on its head. The eggs which are laid in decaying wood organic manure heaps etc., are yellowish white in colour and oval in shape. They hatch out to produce grubs having three pairs of legs; when fully grown, they are about 50 m.m. (2 inches) long. These grubs make earthen cocoons inside which they undergo a complete transformation and in course of time what emerges out of the cocoon is an adult beetle, either a male or a female.

### Nature of damage

The adult beetles bore into unopened leaves and inflorescences. The attacked leaves when fully opened, show the characteristic geometric cuts, the extent of damage depending on the intensity of attack. There have been instances where young nuts have been found to be attacked. Seedlings as well as grown up palms are damaged by this pest.

### Control

- (1) Young palms should be examined, as often as possible. If beetles are found, they should be extracted with the aid of a metal hook which is now commonly used.



- (2) Breeding places should not be allowed to remain in the plantation. All coconut logs should be burnt. They should not be used as fence posts and for other purposes unless they could be destroyed when they begin to decay and become breeding places for the pest. All other breeding grounds should be removed, burnt or destroyed.
- (3) In Farm Yard manure heaps, the grubs should be collected periodically, and destroyed. In the compounds of fibre mills where breeding is found to be heavy a soil insecticide like aldrin or chlordane should be applied.
- (4) Seedlings and young palms could be treated with an insecticide to some advantage where the incidence of the pest is very high. The insecticide DIELDRIN has been found to be effective. The formulations of Dieldrin, the source from where they are obtainable and the dosage rates are given in the schedule drawn up below. Any one of the two formulations mentioned in the schedule is suitable and they are NOT arranged in any order of preference. The dilution should be poured in to the bud region.

#### Dieldrin Formulations.

Formulation	Dilution	Dosage	where obtainable
Dieldrex Extra	6 Table spoon fuls in $4\frac{1}{2}$ litres (1 gall.) water	1 cigarette tin-ful/ palm	Shell Co. Limited, P. O. Box 80, Colombo.
Baur's Dieldrin 20%	6 Table spoon- fuls in $4\frac{1}{2}$ litres (1 gall.) water	1 cigarette tin ful/Palm.	A. Baur & Co. Ltd., P. O. Box 11, Colombo.

