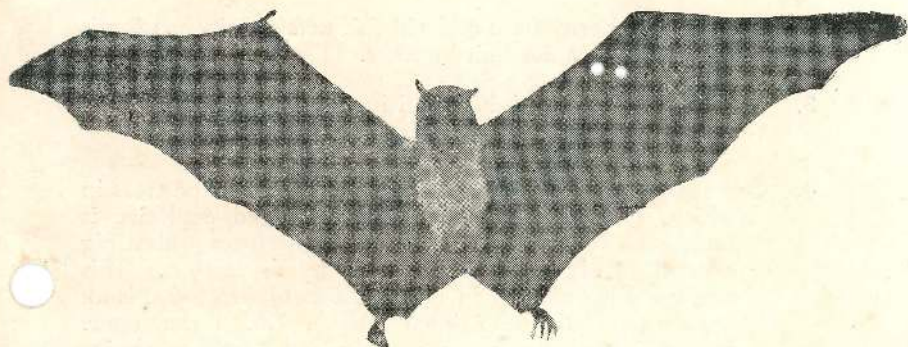


# COCONUT RESEARCH INSTITUTE OF CEYLON



## Leaflet No. 29

### BATS, RATS, AND PORCUPINES AND THEIR CONTROL





# BATS, RATS AND PORCUPINES AND THEIR CONTROL

## PROVISIONAL RECOMMENDATIONS

(Leaflet No. 29)

In view of the numerous inquiries received, regarding the control of Flying Foxes, Rats, Porcupines in coconut estates, it is hoped that the following information may be of some help in their control.

We would be grateful if Coconut Planters would communicate to us their experience with any of these methods.

### A.—Bats of Flying Fox (*Pteropus Edwardsii*) :

1. Fruit growers use kerosene drums which they rattle by pulling strings attached to them.
2. Branches of thorny trees and old fish nets or wire netting is used to protect the fruit bunches.
3. The shot gun is certainly useful in shooting down bats but it may be difficult to spot them at night.
4. One method of control is by killing the bats on the trees in which they roost. A ten pound charged explosive is hung on a branch which when fired produces a blast big enough to kill most of the flock by concussion. This treatment is practised in India, where the explosive is an open cast Gelignite primed with a No. 6 detonator. Proper instructions regarding the use of the explosive should be obtained from the manufacturers.

### B.—Rats :

The use of a Commercial rat poison as a bait may give some measure of control. There are several such poisons in the form of granules, powder, pastes, &c. Whatever poison is used, it will be a safe and wise measure to adhere to the manufacturers' recommendations.

Messrs. Chatham House Ltd., market the following :—

Zelio paste, Zelio grains, Muritan Powder, Castrix and Muritanyl.



Messrs. A. Baur & Co., Ltd., Colombo, market the following :—  
Tomorin and Silmurin.

Messrs. Colombo Commercial Co., Ltd., market the following :—  
Cymag, zinc phosphite.

Messrs. Lee Hedges & Co., Ltd., market the following :—  
Warfarin.

Each of these preparations has a particular use, i.e., as baits, as tracking powders, &c. In the light of rat control in coconut palms, the use of ground as well as tree baits is suggested :

- (i.) The leaves of adjacent palms if they should touch should be pruned back in order to isolate individual trees. If one carries out the following procedure, one should get satisfactory control of rats :
  - (a) Isolation of trees—by pruning if necessary.
  - (b) Cleaning of crowns.
  - (c) Placing of baits in crowns.
  - (d) Banding.

A note on the making of bait may be of some help—boiled rice mixed with dry fish fried in coconut oil to which may be added some burnt coconut is the most suitable base to which the selected poison should be added, in order to make up the bait. The bait could be placed in a half coconut shell or in the hollow of a piece of bamboo which in turn could be placed in the crown or on the ground. It would be best to set the baits out at dusk, i.e., both crown baits and ground baits. The poison baits should not be put out on consecutive days. The following procedure regarding the setting out of baits should be followed :—

Unpoisoned baits should be set out for the first 4 days. On the 5th day, the poisoned bait should be introduced. On the 6th day, and 7th days unpoisoned bait should be set out and then on the 8th day the poisoned bait.

If this routine is followed then it means that after setting out the poisoned bait for the first time the sequence should be to repeat with poison baits every 3rd day. This sequence could be carried on for as long as it is considered necessary.

The first requisite for good control of rats as far as baits placed in the crown are concerned is that the crown should be thoroughly cleared of all breeding material, prior to the placement of baits.



Combined banding operations with poison applications may give very good results. The bands required should be of galvanized iron about 3 feet in length and of adequate width to be wrapped round the trees so that the two cut ends overlap. The ends should be tied together only at the upper most and the lower most points of the band. Tying should not be done right along the outer ends. These bands should be fixed at least *three feet* above the base of the palms.

### C.—Porcupines :

There is no effective means for control of porcupines. There appear to be no chemicals that are effective as repellants of porcupine.

The only method of protecting the coconut seedlings from the damage by porcupines is the use of a protective envelope of wire netting round the palm. The envelope need only be about 1- feet to 2 feet high and of - inch mesh wire netting. If the base of each palm is protected by the wire netting envelope mentioned above, the palms may get some relief from the porcupine attack.

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