



Coconut Research Institute of Sri Lanka



Advisory Circular No B 6

TERMITES AND THEIR CONTROL

Termites are found in almost all coconut growing areas. Some termites live in soil around roots and some live in mounds built on earth. Since they are social insects they live in colonies. Usually termites are abundant in clay soils.

Nature of damage and identification

The two species of termites, *Odontotermes obesus* and *Odontotermes redemanni* damage coconut seedlings in nurseries and soon after transplanting (Picture 1). The first visible sign of the damage is wilting of the central shoot (bud leaf). When pulled off, the bud leaf easily comes out. Usually termites attack the husk around the seed nut and enter into the nut at the base of the collar. Therefore, damaged husk can be observed if the seedling is removed and examined. If the seed nut and the stem are split open, sand incrustations can be observed which is a distinguishable feature of termite damage (Picture 2). On clay soil these termites can cause up to 20% loss of seedlings.



Picture 1: A seedling damaged by the termites



Picture 2: Sand incrustation in the seed nut

Nasutitermes ceylonicus, nests in the roots and constructs long run ways on the trunk. They sometimes feed the tissues on the bark, and then the bark easily peels off exposing inner tissues, thus weakening the palm.

Odontotermes horni lives in close contact with the roots and feeds upon the mulching materials laid on the manure circle. They occasionally attack the root system. If the termite population is high they could cause severe damage to the root system.

Control

A high standard of estate sanitation is the basis of preventive action against termites. Fallen leaves and useless nuts should be collected and burnt and dead trees should be properly disposed.

Termite mounds in the estate should be destroyed and the queen termite which lives in a special compartment in the mound must be killed. Termite queen has a large swollen creamy white abdomen and a grub like appearance.

If the mulch in the nurseries or around palm bases is damaged by termites, mulch should be removed immediately. Piling of coconut husks around or near nurseries should be avoided.

Chemical control

The recommended insecticides and their dosages are given below :

Insecticide	Dosage
1. Imidacloprid 20% (Admire SL 200)	1-2 ml in one liter of water
2. Chlorpyrifos 20%	3-5 ml in one liter of water
(If using Chlorpyrifos 40% halve the dosage)	

Method of application

Dip the seed nuts in one of the above solutions for 3 minutes prior to planting.

If the attack occurs after transplanting, one of the recommended insecticides should be drenched to the soil using a watering can. Five liters of a insecticidal solution is required for one square meter of the area. Since the most serious damage occurs in the nursery and during the first years of growth, it is particularly important that treatment should be applied whenever necessary during these years, in order to ensure that the palms are free from termite damage.

When adult palm is attacked drench five liters of the recommended insecticide solution around the palm base.

Note: All insecticides are toxic and should handle with care.