

# SOME DISEASES OF THE COCONUT PALM

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**D**URING the year a number of Coconut Growers reported outbreak of disease in their plantations. Some described the symptoms of the disease and requested that the pests may be diagnosed, while others inquired for control and remedial methods.

The Coconut Scale (*Aspidiotus destructor*) is a pest on leaves and is especially serious during the dry months. Attacked trees show patches of yellow on their foliage caused by these insects, sucking the cell-sap. It was reported at Nattandiya, Hettipola, Kirimetiya, Kurunegala, Polgahawela, Mirigama, etc. The effected leaves are covered on the under surface by a mass of dull incrustations—the scales under which the insects, which cause the disease actually live. Should such an affected leaf be held against the light and examined with a pocket lens, a yellowish patch could be seen within the thin, almost circular, opaque covering (the Scale). The male, when it emerges, crawls amongst the females and the latter lays eggs within the outer ring of the covering scale. The newly hatched *Aspidiotus*, moves about and quickly settles down on suitable fresh tissue to suck the juices from it. It is very probable that the wind plays an important part in the disposal of these insects, from tree to tree and place to place. The Coconut Scale has a number of enemies. *Chilocorus nigratus*, is a small black coloured Lady Bird beetle which predares on the Scale insect. That is why these beetles are often found on Scale infested palms.

The Coconut Caterpillar (*Nephantis serinopa*) is another dry weather pest. This occurred for the most part in the Batticaloa, Puttalam and Kurunegala districts. The caterpillar lives on the under-surface of the leaves in furrows made of chewed leaf tissue. The caterpillars feed on the leaf and destroy it wholly, or partly. They pupate within the furrows and the moths that emerge from them lay the eggs on the leaves to continue the life-circle. The pest is to some degree controlled by a Eulophid pupal parasite.

The Black Beetle (*Oryctes rhinoceros*) is an every-day pest, of the coconut palm, found in all estates. The nature of its damage varies, the Dwarf palms being more susceptible to it than the Tall variety. It is not known to kill the palm, but the pest could largely reduce the surface of the young unfolding leaf, and moreover permit fatal secondary infection, especially by the Red Weevil pest. The adult beetle damages the palm and returns for egg laying to decaying vegetable and animal refuse of almost every description.

The Red Weevil (*Rhynocophorus Ferrugineus*) is an extremely dangerous and difficult pest to combat. A few palms in Homagama, Potuhera and Gonawila were attacked by it. Unlike the Black Beetle, the eggs of the Red Weevil are laid within the palm and the grubs that emerge, channel and pulverise the interior of the stem, leaving no external injury until the palm finally withers, and

dies. The Larvae (grubs) are legless, with a head of cutaneous structure, having two strong mandibles (teeth), well adapted for gnawing the hardest vegetable structures. Its presence is detected generally, too late when the leaves, inflorescences and fruits which at one time were in good condition, drop to the ground.

In Ceylon, the Locust is not a serious problem. However, damage by the spotted locust (*Aularches miliaris*), occurred in young coconut plantations in Matale and Ruanwella. This particular variety cannot fly very high and their damage is limited to young plants or seedlings. The locust appears in very large numbers and attack the palms by feeding on the leaves almost defoliating them.

Grey blight is generally common to all palms. However, certain areas in Galle, Puttalam, Madampe, Ganemulla and Wariapola reported it as a serious pest. Here, the causative organism is not an insect, but a fungus which produces brownish spots or lesions on the surface of the leaf. If the lesions are examined with a hand lens small pin-head like structures are seen to protrude outside. These are the spores (similar to seeds or ordinary land plants) which are dispersed by the wind or other agencies on to fresh leaves where they germinate in the presence of moisture. These lesions later coalesce to give a scorched appearance and in extreme cases leave only the midribs on the branches. It is generally not fatal, but could greatly reduce the vitality of the palm. It is yet to be established, whether one or more fungi are responsible for this damage, or whether one predisposes the other in causing lesions in the leaf.

True Bud-rot was rare except for two places in Kurunegala and Matale which reported the disease. It is supposed to be caused by a fungus (*Phytophthora palmivora*), and is the most serious disease known to coconut palms. Instances of bud-rot are often incorrectly diagnosed as due to this fungus. Instances of Stem bleeding were also reported. Stem bleeding as due to (*Thielaviopsis paradoxa*) is extremely rare, and Stem bleeding as due to other causes is often mistaken with that caused by *Thielaviopsis paradoxa*.

Some of the minor pests of Coconuts, that were reported, included the Bag-worm (*Psyche albipes*), the Green Nettle Grub (*Parasa Lepida*) and the Coconut Butterfly (*Elymnas fraterna*).

Inquiries on tapering, button-fall and leaf break, were also received. The causes of these have not yet being satisfactorily investigated. It is possible that in all cases, the factor causing the disease is either organic, or physiological or both.