

## ARECANUT CULTIVATION

# PESTS OF ARECANUT PALM

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**A**RECANUT palm is attacked by a few pests which damage the crop to varying degrees. In cases where the inflorescences and fruits are attacked, there is direct loss while damage to other parts such as leaves, roots and stems has indirect effect on the performance of trees. The nature of damage caused by important pests and their control are briefly described below.

*Mites.* Arecanut palms of all ages are found to get infested with two types of mites, namely the red mite (*Raoiella indica*) and the white mite (*Paratetranychus indicus*). They colonise on the undersurface of leaves and suck the sap as a result of which the affected leaves lose their green colour, turn yellow and present a bronzed appearance. The leaves ultimately wither away causing severe damage to the plants. The mites multiply rapidly during the dry and hot weather periods. They are effectively controlled by spraying the lower surface of leaves with either Kelthane, 186 ml or Akar-338, 100 ml or Trithion, 126 ml in 100 litres of water. The spraying may have to be repeated at an interval of 15 to 20 days if there is recurrence of the pest. In addition to the above, there is another species of orange coloured mites which attack the arecanut fruits. These mites harbour inside the inner whorl of calyx of tender nuts and feed voraciously on the sap causing nut shedding. These mites are controlled by spraying the bunches with Rogar 30 EC at a concentration of 1 ml per litre of water.

*Spindle bug (Carvalhoia arecae).* This is another serious pest usually observed rapidly multiplying with the close of the monsoon. Colonies of bugs consisting of nymphs which are pale yellowish green and adults

which are reddish brown or black and red in colour live inside the topmost leaf axil at the base of the spindle and suck sap from the tender spindle. As a result of the attack, the spindles fail to unfurl completely, often get slightly twisted and do not attain the normal size. The affected leaves show numerous linear dark brown necrotic patches. Shot holes are formed in the necrotic areas later. Severe infestation results in loss of vigour of palms and consequent death. Spraying of crowns with Endrin 20 per cent EC (1 litre in 800 litres of water) or BHC 50 per cent wettable powder (250 g in 100 litres of water) controls the pest effectively. The spraying may be repeated once in 30-35 days if the incidence continues.

*Inflorescence caterpillar (Tirathaba mundella).* This pest is important in that the damage caused is direct on the inflorescence. The adult moths lay eggs in the holes made on the spathe by slugs and carvings. On hatching, the caterpillars gain entry into the inflorescence through these holes and feed on the flowers inside. They clump the inflorescence into a wet mass of frass with the silky threads formed by them and take shelter therein. The inflorescences attacked by the pest can be easily located by a trained eye. The affected spadices do not open and the punctures made by the slugs at their bases indicate the presence of caterpillars inside. Such spadices are to be force-opened and sprayed with either Endrin (125 ml in 100 litres of water) or Malathion 50 per cent EC at 2.5 ml in 1 litre of water.

*Root grub (Leucopholis bermeisteri).* Root grub or white grub is a serious pest of arecanut palm. The grub possesses a characteristic soft 'U' shaped body with brown hairy legs. They are voracious feeders on roots. The tender roots are first attacked to be followed by the attack on older roots. In severe cases the base of the stem is also infested by the grub. As a result of the attack the stem tapers, leaves turn yellow and fruits drop. Since the roots are eaten away the palm is unsteady and is easily blown by wind. The grub is a soil inhabitant and is generally found in low-lying areas where high water table exists, or waterlogging conditions prevail in rainy seasons. Hence good drainage is to be provided primarily before any attempt is made in controlling the pest. The grubs are effectively controlled by treating the soil with Intox-8 (Sandoz) at 50 ml in 100 litres of water. Before the insecticide is applied, the soil around the palm has to be loosened to a depth of 10-15 cm and the chemical applied evenly all round. The chemical may be applied twice a year, once in May just before the onset of south-west monsoon and again in September-October towards the close of the monsoon. The treatment has to be repeated for two or three years consecutively to get a complete eradication of the pest.