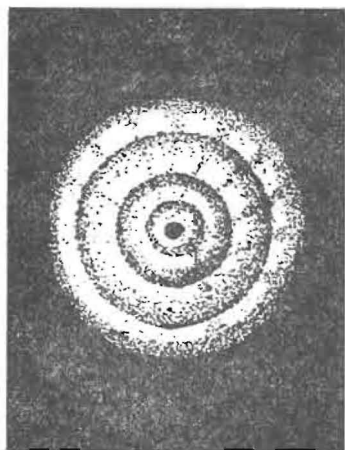
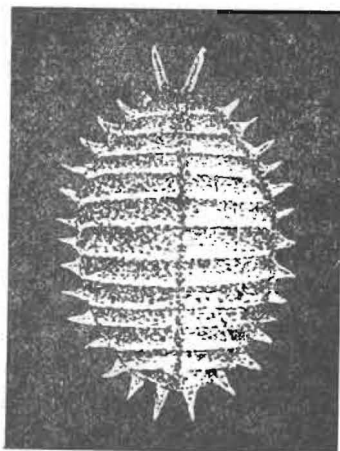


SCALE INSECTS AND MEALY BUGS OF COCONUT



Scale insect



Mealy bug



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Scale Insects

The scale insects attack the plants both in nursery and adult stages. There are several species of scale insects infesting coconut palm. These tiny insects feed on the lower side of the leaflets, rachillae, buttons or tender nuts. Due to their feeding, leaves show yellowing and the vitality of the plant is drastically reduced. This results in yield loss because of button shedding and immature nut fall. Infestation is more severe in areas where the palms are planted with closer spacing without proper management. Some times plants growing in poor soils are also targets of this pest. During drought spells the outbreak of the pest is more severe.

Symptoms of damage:

The insects are very small, circular, covered with semitransparent, yellowish or orange coloured slightly convex scale. They form groups and suck the sap from the lower side of older leaflets, rachillae, buttons or tender nuts. In severe cases the insects form a continuous crust, blocking the stomata. The leaves affected by this pest show yellowing which is different from other deficiencies.

Management:

There are a few types of coccinellid beetles (lady bird beetles) which are known as very good predators of scale insects in India. Some chalcid parasites are also observed in coconut gardens infested with this pest. However, in case the incidence of the pest is severe, chemical control measures are to be adopted. The infested parts of the palms should be sprayed with 0.05% monocrotophos (15 ml. of chemical in 10 l. of water) or dimethoate (17 ml. of chemical in 10 l. of water). A second round of spray may be given after 30 days if the infestation persists. When spraying has to be done on inflorescences or bunches, care should be taken to see that setting is completed. Harvest of tender nuts/mature nuts should not be done for a period of 25-30 days after spraying.

Mealy bugs

This is also a sucking pest. They are small in size and occur in small colonies at the bases of spear leaf, spadex, inflorescence and perianth of tender nuts. The build up of the pest begins soon after the cessation of monsoon rains. It reaches a peak during the hot summer months. Incidence of this pest is particularly more severe in drought years.

Symptoms of damage:

The insects are oval in shape and measure about 2-3 mm. They are soft bodied with a waxy, white, powdery covering. They form small colonies and suck the sap from the spear leaf, spadex, inflorescence and perianth of tender nuts. As a result, the tender unopened fronds remain highly stunted, deformed and suppressed. In severely infested trees the immature nut fall has been reported. An interesting feature of mealy bugs is their association with ants. These ants help in dispersal of the pest from one plant to another in return for a sweet secretion given out by the pest.

Management:

In case the incidence is confined to a few palms, the chemical spraying should be given to only such palms. If the entire garden shows the mealy bug infestation, insecticide spray with fenthion (0.1% i. e. 20 ml. of chemical in 10 l. of water) or monocrotophos (0.1% i. e. 30 ml. of chemical in 10 l. of water) may be given. The second round of spray should be given after 30-45 days of the first. Care should be taken that no damage is done to pollinating insects during spray operations. It is preferable to apply the treatments after the setting of fruits.

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