

Pests of Coconut

Major pests				
1.	Rhinoceros beetle	<i>Oryctes rhinoceros</i>	Scarabaeidae	Coleoptera
2.	Red palm weevil	<i>Rhynchophorus ferrugineus</i>	Curculionidae	Coleoptera
3.	Black headed caterpillar	<i>Opisina arenosella</i>	Cryptophasidae	Lepidoptera
4.	Coconut Eriophyid mite	<i>Aceria guerreronis</i>	Eriophyidae	Acari
5.	White grub	<i>Leucopholis coneophora</i>	Melolonthidae	Coleoptera
6.	Slug caterpillar	<i>Parasa lepida</i> and <i>Contheyla rotunda</i>	Cochliidiidae	Lepidoptera
Minor pests				
7.	Mealy bug	<i>Pseudococcus longispinus</i>	Pseudococcidae	Hemiptera
8.	Scale insect	<i>Aspidiotus destructor</i>	Diaspididae	Hemiptera
9.	Lacewing bug	<i>Stephanitis typicus</i>	Tingidae	Hemiptera
10.	Termite	<i>Odontotermus obesus</i>	Termitidae	Isoptera
11.	Coconut skippers	<i>Gangara thyraxis</i> and <i>Saustus gremius</i>	Hesperiidae	Lepidoptera

1. Rhinoceros beetle: *Oryctes rhinoceros*, (Scarabaeidae: Coleoptera)

Host range

Pineapple, sugarcane, arecanut, sago, oilpalm, palmyra, date palm and wild dates.

Damage symptoms

- Central spindle appears cut or toppled
- fully opened fronds show characteristic diamond shaped cuttings.
- Holes with chewed fibre sticking at the base of central spindle.



Management

- Rake and turn up the decaying manure to expose the developing grub, egg and pupae to sun drying and predation. Then apply the fungal culture of *Metarrhizium anisopliae* to manure pits during cooler months of October - December.
- Encourage reduviid predators, *Platymeris laevicollis*
- Once in three months, drench the manure pits with carbaryl 50 WP 1 g/lit
- In seedlings, place naphthalene balls @ 3 / tree, in the innermost three leaf axils once in 45 days.
- Soak castor cake @ 1 kg/5 lit of water in wide mouthed mud pots and keep them in the garden to attract and kill adults. Replace the slurry once in 30 days.

2. Red palm weevil: *Rhynchophorus ferrugineus* (Curculionidae: Coleoptera)

Damage symptoms

- Holes on the trunk with brownish ooze;
- yellowing of inner leaves and gradual wilting of central shoot in the crown.
- Up to 50 Nos. of grubs can be found feeding on the soft tissues inside the trunk.



Management

- Avoid injuries on trunk and any injury should be plastered with clay or cemented with copper oxychloride.
- Root feeding with monocrotophos @ 10 ml + 10 ml water should be done after harvest of nuts. Observe a waiting period of 45 days.
- Set up attractant traps using mud pots with molasses / toddy 2.5 lit + acetic acid 5 ml + yeast 5 g + split tender coconut stems / petioles @ 30/ac.
- Insert 1-2 aluminium phosphide tablets inside the tunnel and plug all the holes with clay + copper oxychloride

3. Black headed caterpillar: *Opisina arenosella* (Cryptophasidae: Lepidoptera)



3 to 4 youngest leaves remain green at the centre

Galleries of silk and frass on underside of leaves

Damage symptoms: Dried up patches on leaflets of the lower leaves. Galleries of silk and frass on underside of leaflets.

Management

- Cutting and burning all the infested leaves and fronds.
- In small plantations, carbaryl 50 WP 2 g/L may be sprayed.
- In summer, release bethylids, braconid and eulophid parasitoids from January at 1:1:10 per tree.

4. Coconut Eriophyid mite: *Aceria guerreronis* (Eriophyidae : Acari)

Damage symptoms

- The mite infests and develops on the meristematic tissues under the perianth. Initial symptoms exhibit as triangular pale white or yellow patches close to the perianth.
- Continuous feeding results in necrosis of tissues leading to formation of brown color patches, longitudinal fissures and splits on the outer surface of the husk
- oozing of brown gummy exudation; reduced nut size, copra content and malformation of nuts.



Management

- **Nutrients (per tree / year)**

Urea 1.3 kg, super 2.0 kg, potash 3.5 kg, neem cake 5 kg, borax 50 g, gypsum 1 kg, MgSO₄ 500 g, FYM 50 kg

- **Root feeding**

a) Root feeding with TNAU - Agro Biocide 30 ml/tree

b) Root feeding with carbosulfan 15 ml + 15 ml water / tree at 45 days interval or fenpyroximate at 10 ml/tree

c) TNAU - Agro biocide - 30 ml/tree - (60 days after Carbosulfan root feeding).

Note: Before root feeding, pluck nuts. After root feeding, next harvest should be done 45 days later.

- **Spray** - Fenpyroximate 5 EC 1.0 ml/L of water

5. White grub: *Leucopholis coneophora* (Melolonthidae: Coleoptera)

Damage symptom

- Leaves turn yellow, immature nuts shed, flowering delayed.
- White grubs are exposed when base of the tree is dug.

Management

- Treat the seeds with chlorpyrifos @ 12 ml/kg of kernels.
- Apply phorate 10 G 10 kg or carbofuran 3 G 30 kg per ha in the soil at or before sowing.
- Spray 500 g carbaryl 50 WP 500 g in 250 L of water per ha on the preferred hosts like ber, guava, banana, in the vicinity



6. Slug caterpillar: *Parasa lepida*, *Contheyla rotunda* (Cochlidiidae: Lepidoptera)

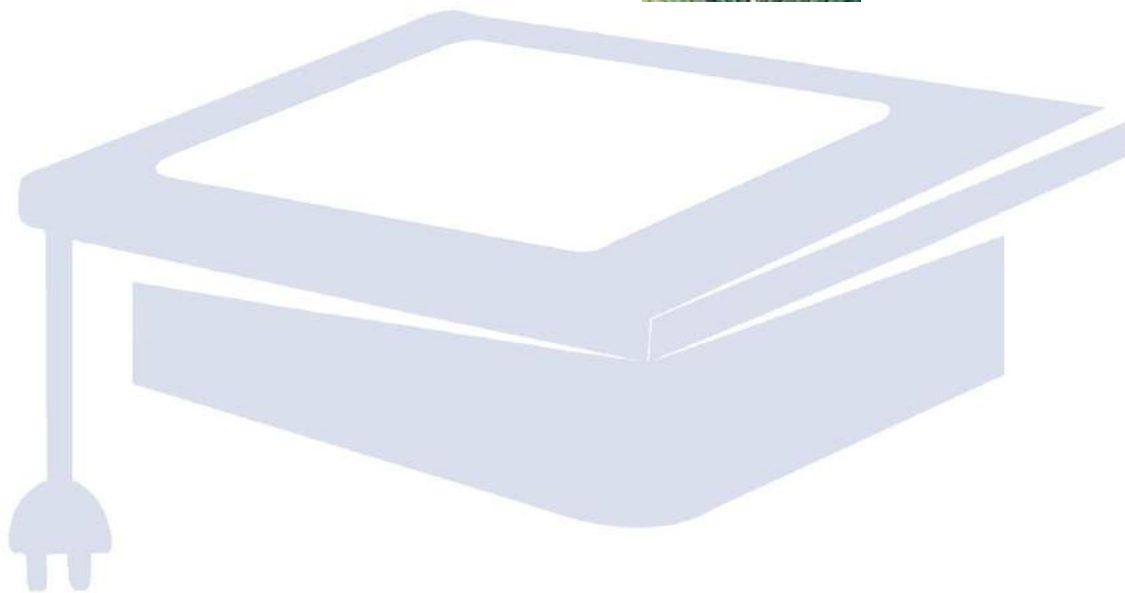
Damage symptoms

- Defoliation, leaving only the midrib and veins.



Management

- Spray endosulfan 2.0 L in 1000 L of water per ha



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