

Root system heavily infested by root mealybugs

3. Minor insect pests of arabica coffee in Uganda and their control:

3.1 Coffee berry borer (*Hypothenemus hampei* Ferr.):

These are small black beetles that bore into coffee berries and damage either of the beans thus lowering quality. Immature berries are shed off when attacked. Only Arabica coffee in low altitude area is attacked.

Open pruning of bushes will encourage natural biological control of the pest. Regular picking of cherries, at least once a forth-night has been shown to reduce infestation.

3.2 Leaf miners (*Leucoptera* spp.):

These are larva of a moth that bore into the leaf and feeds on the tissue between the lower and upper surfaces.

The feeding action causes brown irregular blotches on the leaf leading to premature shedding of leaves.

Spray with fenitrothion at rate of 70 ml per 20 litres of water. Spray when population of 30 moths per tree is sited.

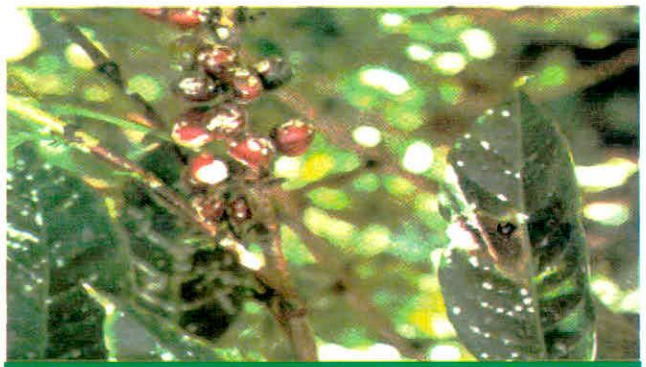
3.3 Coccid pests:

Common coffee mealybug (*Planococcus kenyae* Le Pelley); White waxy scale (*Gascardia brevicauda*) and Green scale (*Coccus alpinus* De Lotto)

Masses of insects attacking flowerbeds, berries and shoot tips, often accompanied by shooty.

Banding of trees 15 cm wide at base using persistent insecticides will cut off. attendant ants and favour natural biological control.

Trees can also be sprayed with dimethoate (rogor), or fentitrothion with sticking agents such as teepol added.



Fried egg scales on coffee leaves and berries

3.4 Leaf skeletoniser (*Leucoplema dohertyi* Warr):

Usually a minor pest, but severe out-break may occur in nurseries. Feed on leaves leaving veins and upper epidermis (windows) in the leaf.

Fenitrothion spray recommended at rate of 70 ml per 20 litre water.

3.5 Tailed caterpillar (*Epicampoptera andersoni*):

Occasionally serious in nurseries causing severe defoliation.

Spray with Sumithion at rate of 70 ml in 20 litres of water.

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NaCRRI — Uganda Coffee Development Authority — USAID FROM THE AMERICAN PEOPLE

INSECT PESTS OF ARABICA COFFEE IN UGANDA AND THEIR MANAGEMENT



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Published:June 2010.

1. Introduction:

The major Arabica coffee pests are antestia bugs, coffee lace bugs, stem borers and root mealybugs.

Those regarded as minor but occasionally cause severe damage are leaf miners, leaf skeletonisers, scales and mealybugs.

2. Major insect pests and their control:

2.1 Antestia bugs (*Antestiopsis* spp.):

These are brown or bronze insects with yellow orange patterns. They cause damage through sucking sap from flower buds, flowers, berries, leaves and soft stems. This results into flower and berry abortion, cracking (Zebra marks) and rotting of beans, multiple branching (witches broom), and shortening of internodes.

Pruning to open up canopy helps reduce antestia bug population. Monitor and spray when 2 bugs per tree are observed. Use fenitrothion or fenthion spray 50% E.C. at rate of 70 ml per 20 litres (3.5ml/litre) of water.



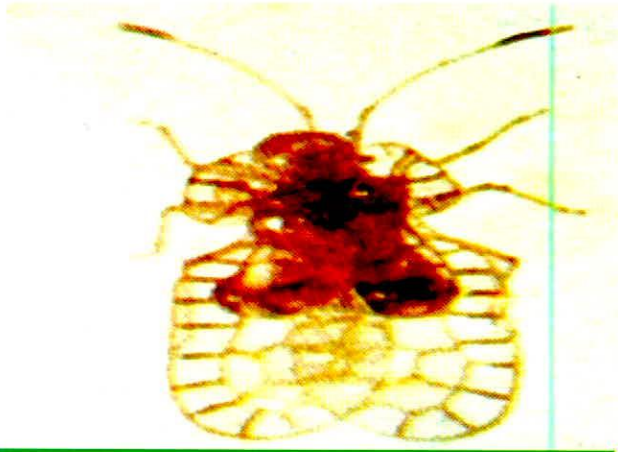
Adult Antestia bug

2.2 Coffee lace bugs (*Habrochila* sp.):

These are small fly-like insects (size) with characteristic brightly coloured patterns on wings. They are usually found sucking on the under-side of the leaves, leaving shiny-black droppings. Causes general yellowing of leaves that die progressively from margins towards mid-rib. Heavy infestation causes defoliation, berry abortion and die-back.

Out-breaks are common during prolonged dry period and when insecticides are used excessively resulting into death of its natural enemies.

Under heavy infestation, use fenitrothion or fenthion spray 50% E.C. at rate of 70 ml per 20 litres (3.5ml/litre) of water.



Adult lacebug

2.3 Coffee stem borer (*Bixadus seirricola*):

These are brownish insects with white patches and long antennae covering the entire length of the body. Adult females lay eggs inside crevices on the bark of the stem. The larvae bore into the main stem of the coffee tree, exuding wood shavings which are seen at the base of the tree. This causes yellowing of foliage, easy breaking of the stem and eventual death of trees.

Control is to band tree stems with propaxone or diazinone using brush from collar level to height of 0.5 metres. Pushing a bicycle spoke/any wire into the tunnel to kill larvae is advised.



Stem borer larvae



Stem borer adult

2.4 Coffee root mealybug (*Planococcus ireneus* De Lotto):

These are white masses of insects found sucking coffee roots and base of stems in the soil. They may kill roots leading to yellowing of leaves and eventual death of trees. High activity of attendant ants at colar region indicates presence of mealybugs.

Apply 10 g (match box size) per tree of Furadan, Dursban or Marshal granules and mix with soil at base of tree under wet conditions. This should be accompanied by the application of mineral fertilizers to improve soil fertility. Up-root dead trees and treat spot with same chemicals above.