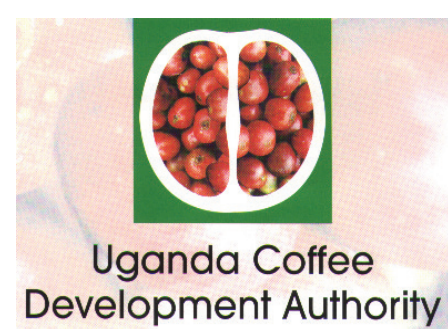




# 3.0 Main insect pests of coffee

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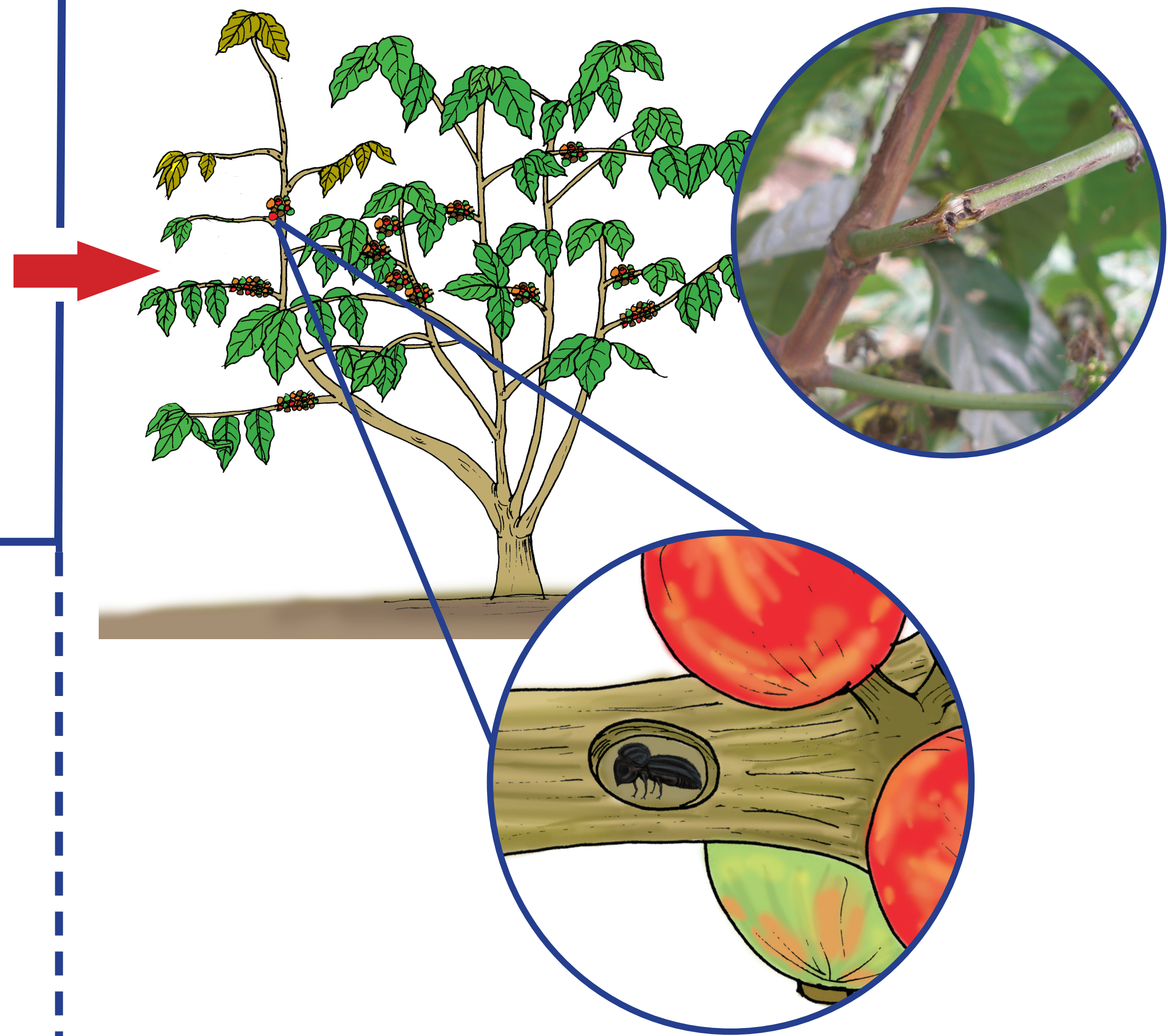
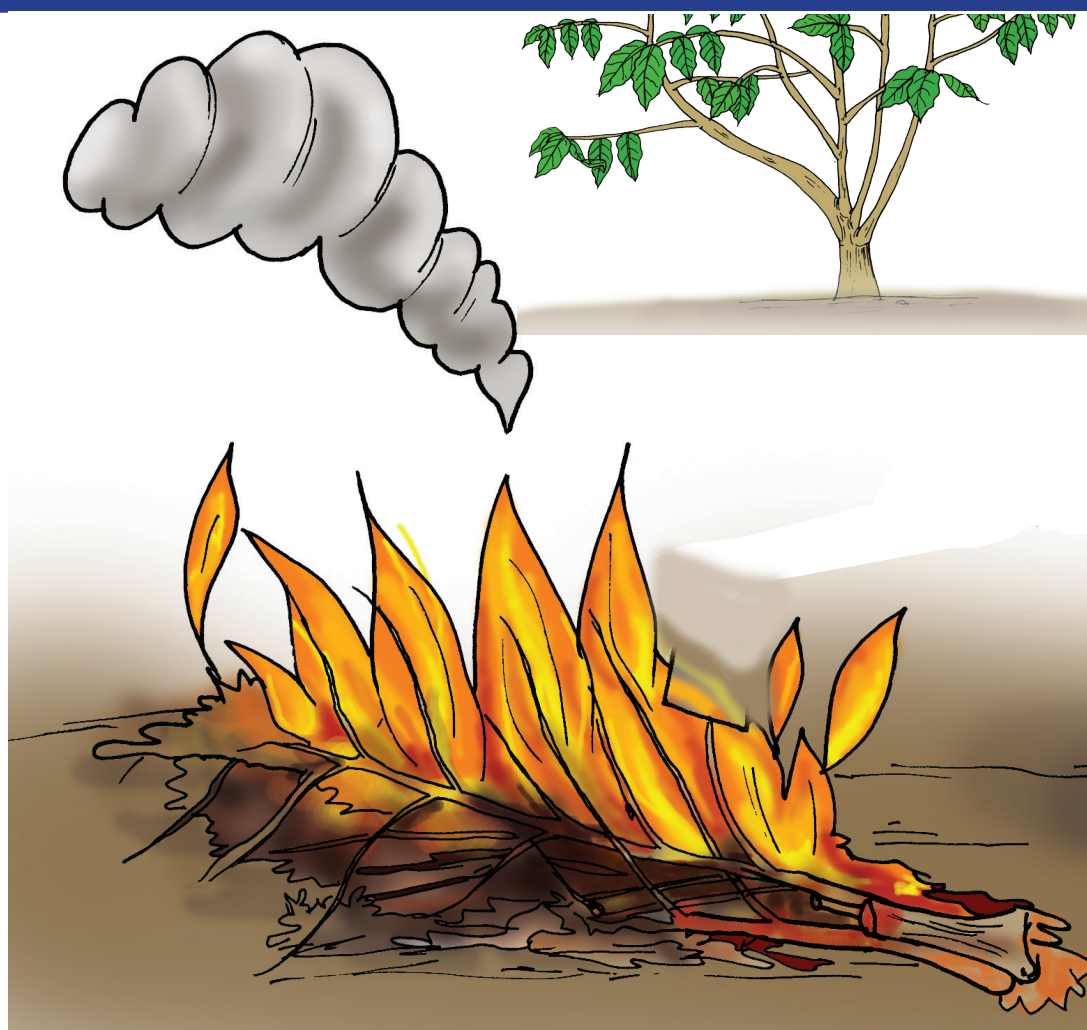
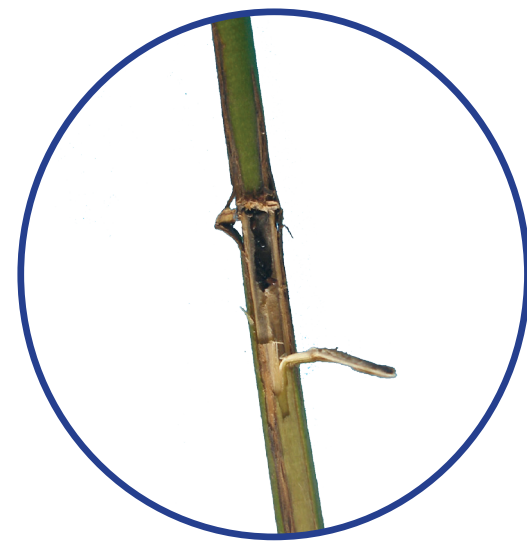
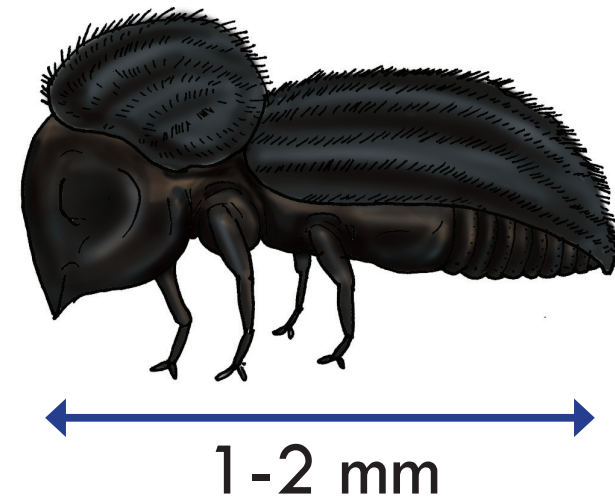
- 3.1 Black twig borer (mainly Robusta)
- 3.2 Root mealy bug
- 3.3 White stem borer (mainly Arabica)
- 3.4 Coffee berry borer
- 3.5 Antestia bug (Arabica only)
- 3.6 Coffee lace bug (Arabica only)
- 3.7 Aphids, leaf mealy bug and scales





# 3.1 Black twig borer (mainly Robusta)

Black twig borer (BTB) is a small beetle that bores into primary branches and young stems, killing them.



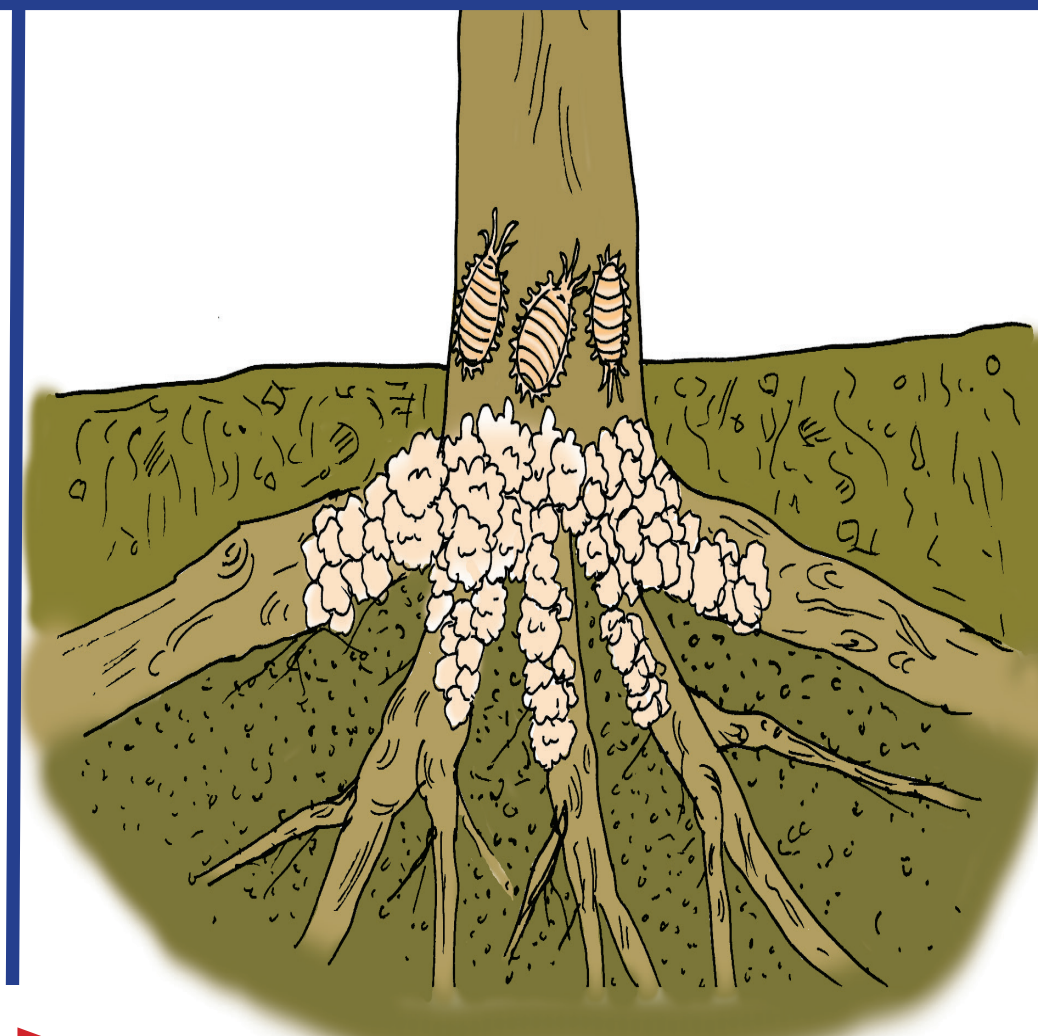
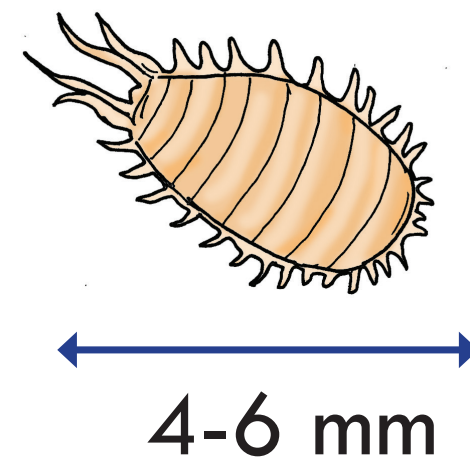
## To control:

1. Prune affected parts and burn them.
2. Clean weed by digging to bury any of the pests harboured in ground surface litter.
3. Apply systemic insecticides such as Imax where necessary.
4. Stump the coffee trees if infestation is extreme.
5. Reduce excessive shade as it is conducive for the survival of BTB.



# 3.2 Root mealy bug

1. Root mealy bugs are sucking insects on the roots of the plants.
2. They sip sap from the roots and thereby reduce movement of water and nutrients to the trees.
3. This causes yellowing and drooping of leaves and death of entire trees.



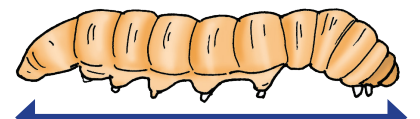
## To control:

1. Uproot and burn affected or dead trees.
2. Trees showing early signs of attack and surrounding ones should be treated with Dursban mixed into soil around the tree or with Actara.

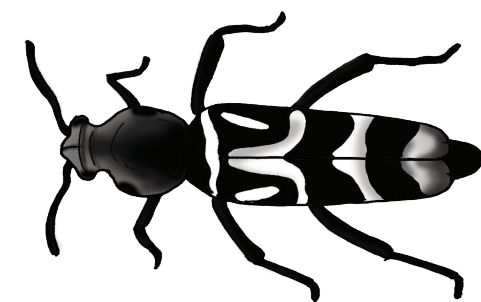


# 3.3 White stem borer (mainly Arabica)

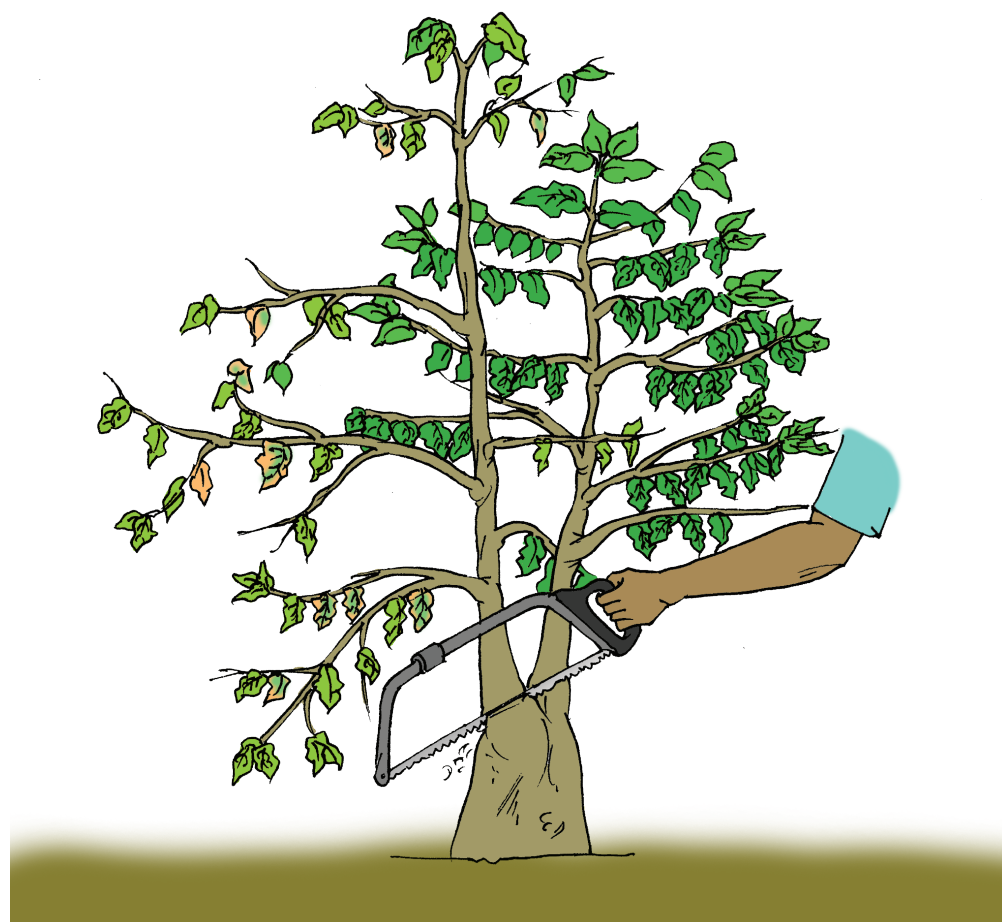
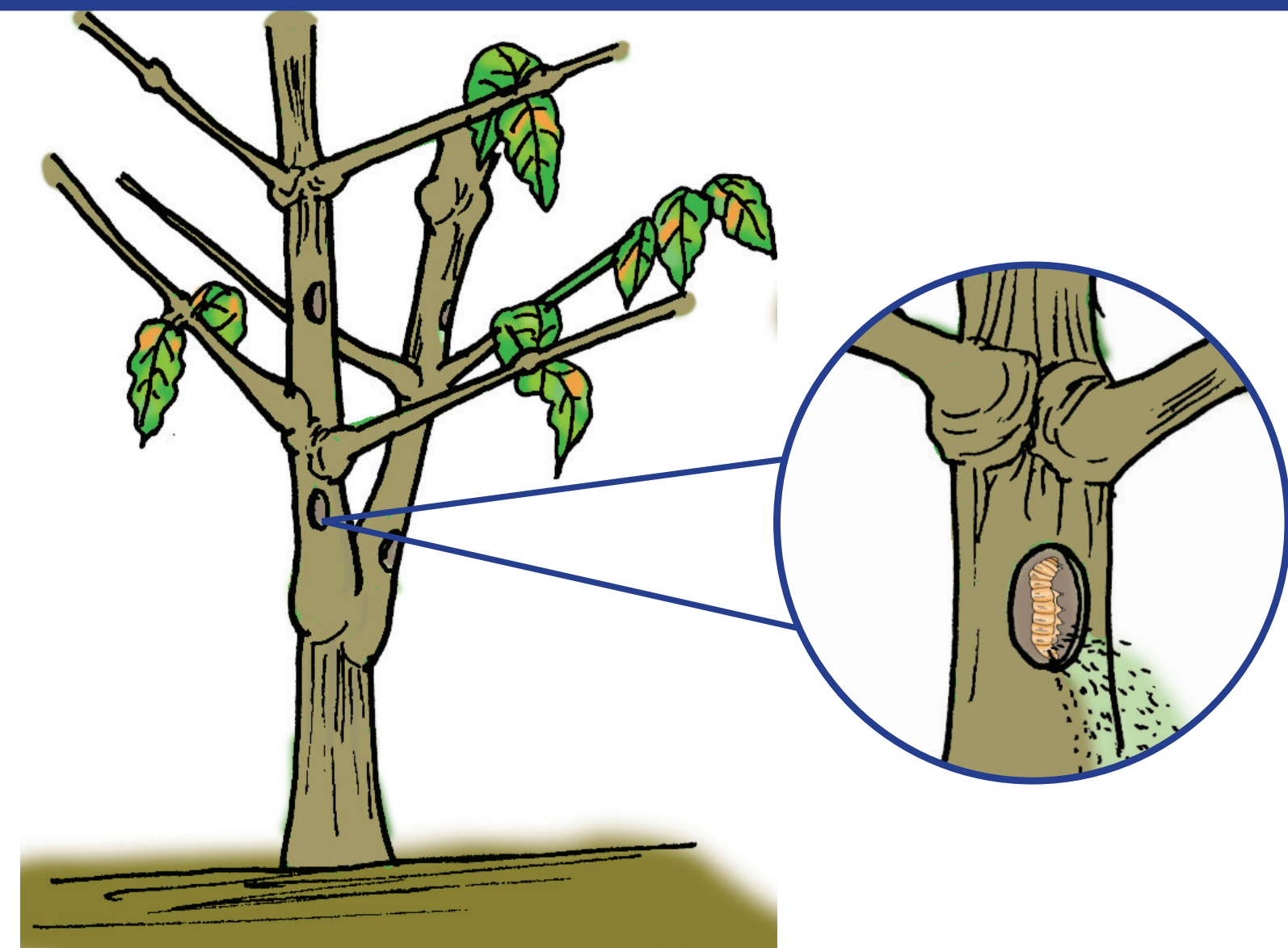
1. Adult female stem borers lay eggs inside crevices on the bark of the stem.
2. The larvae bore into the main stem of the coffee tree. You can see wood shavings at the base of the tree.
3. The damage causes yellowing of foliage, easy breaking of the stem and eventual death of trees.



stem borer larva  
3-5 cm



3-4 cm



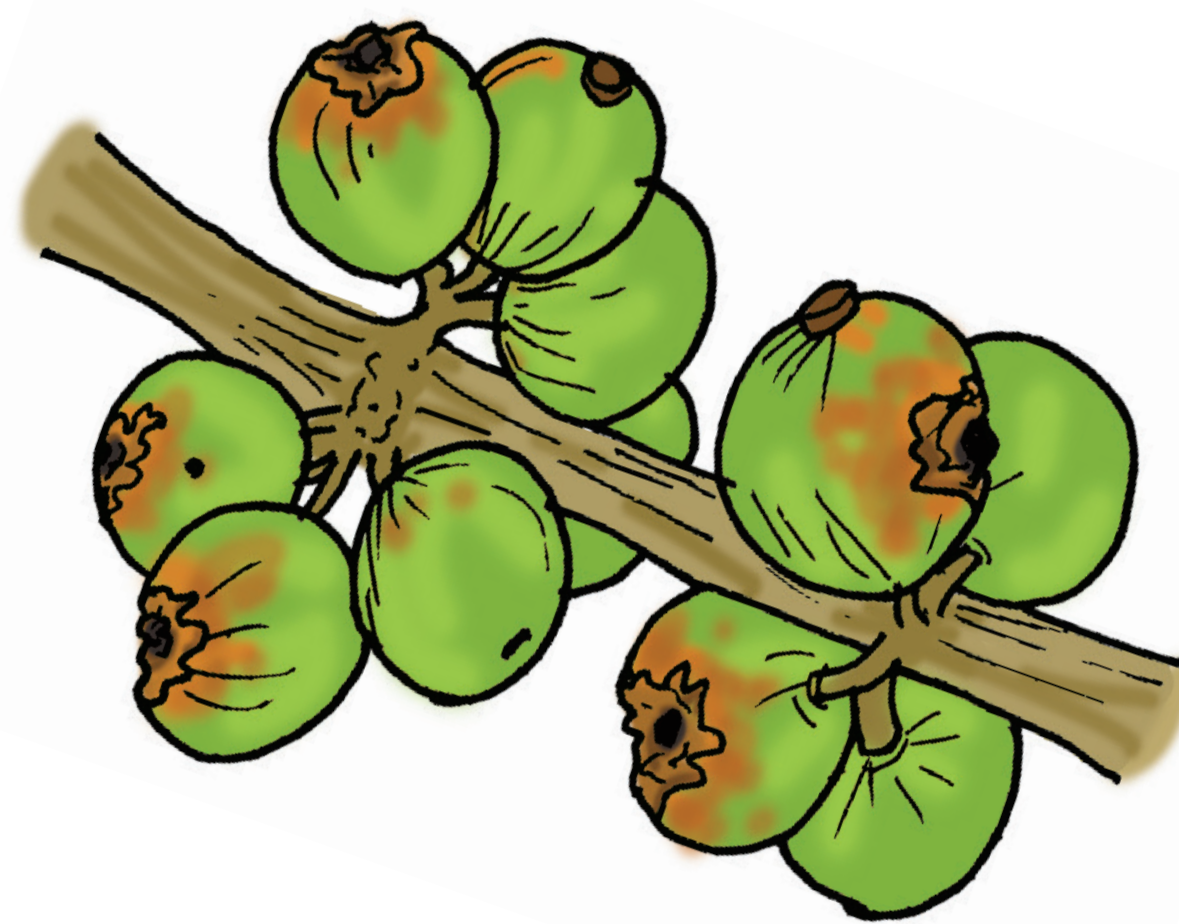
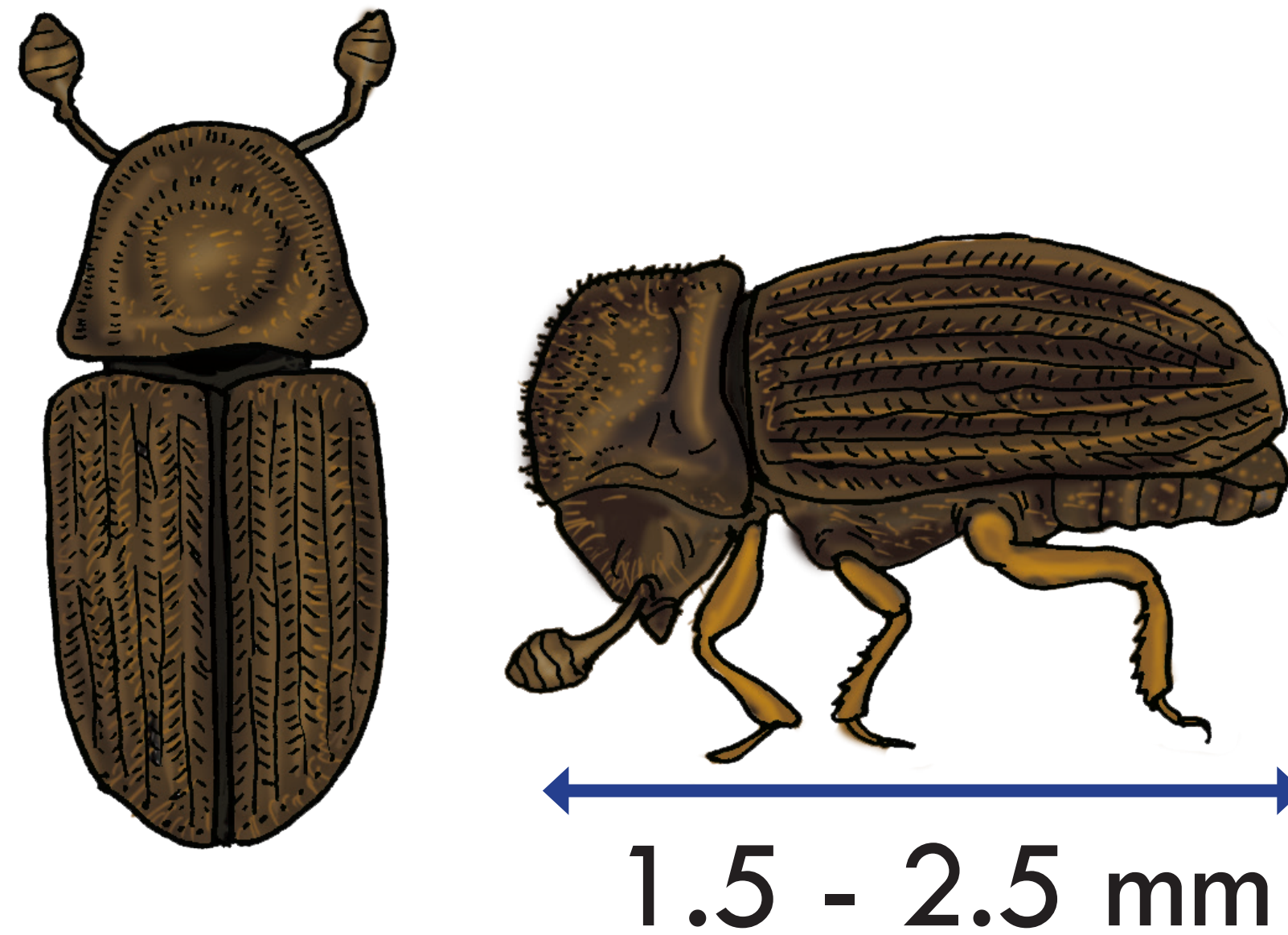
## To control:

1. Band tree stems with Dursban using brush from collar level to height of 0.5 metres.
2. Push a bicycle spoke/any wire into the tunnel to kill larvae.
3. Stuff the insect hole with cotton wool or paper soaked with Dursban or Super Sumithion to kill the larvae.
4. Smoothen tree bark up to 0.5 metres using a maize cob or cloth to prevent laying of eggs.



# 3.4 Coffee berry borer

Coffee berry borer (CBB) is a small beetle that bores into coffee berries, damaging beans and reducing yield and quality.



## To control:

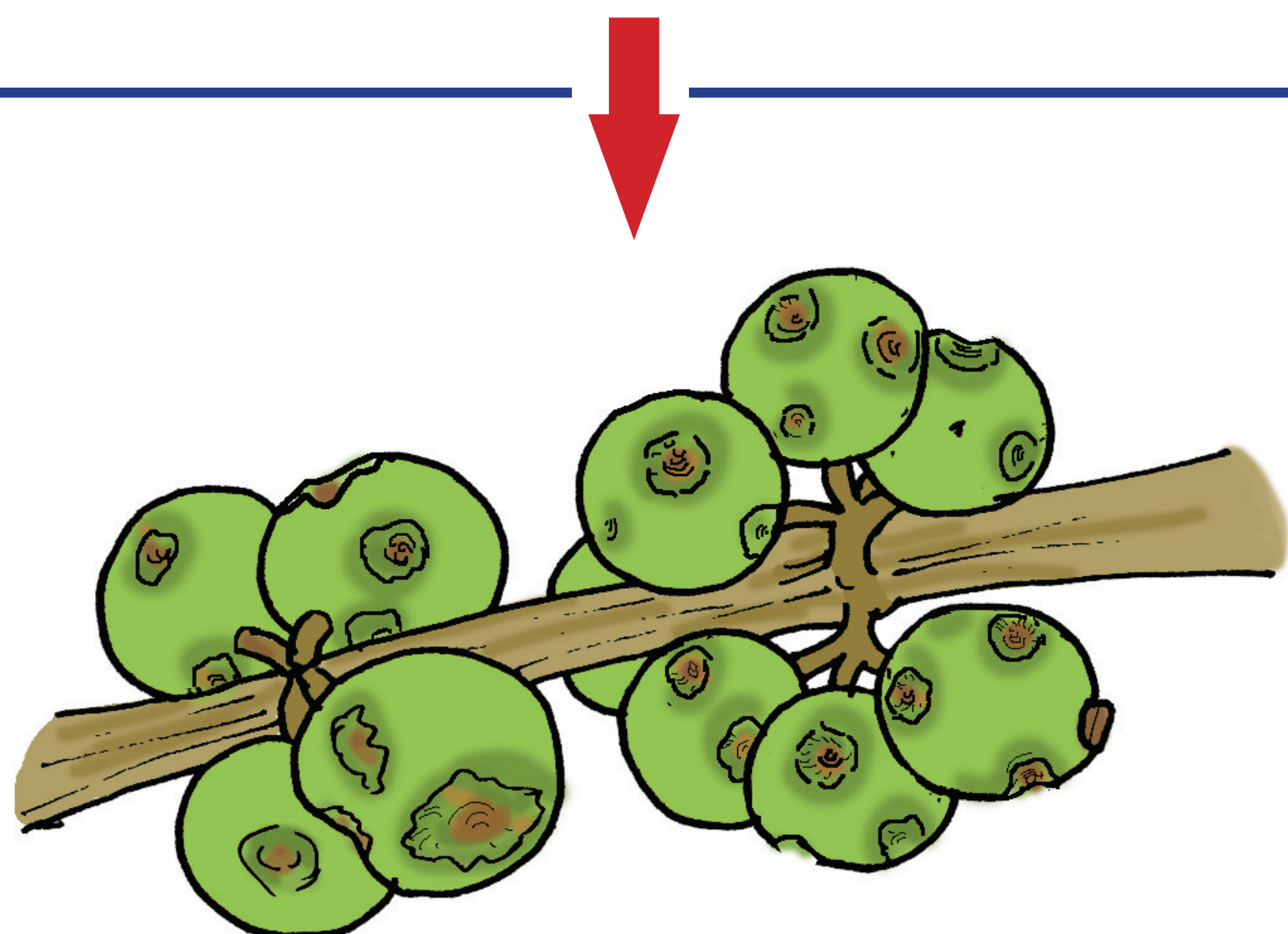
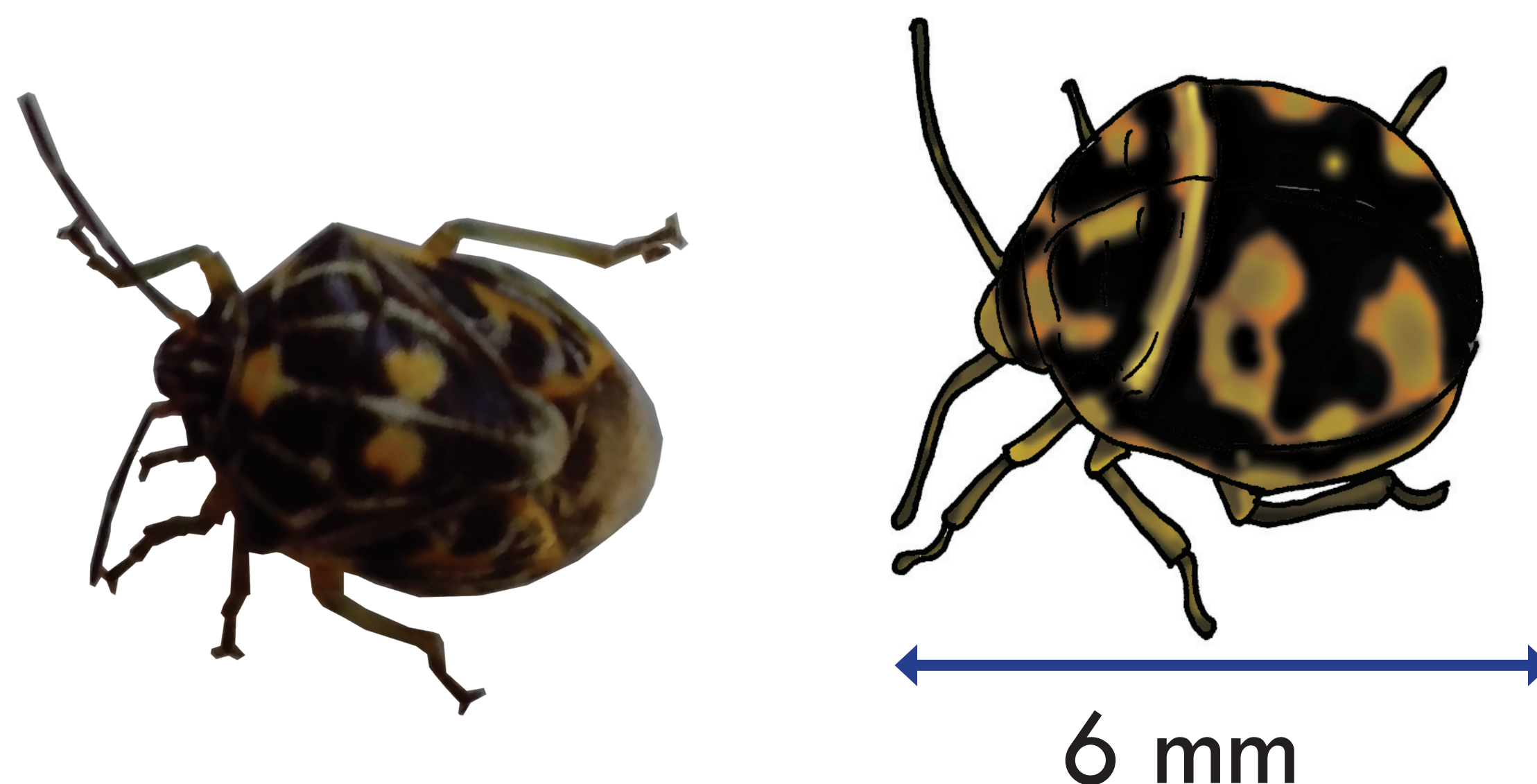
1. Prune coffee and shade trees to open up canopy and promote natural control by birds.
2. Pick all ripe cherries frequently and regularly.
3. Remove and burn cherries that have fallen on the ground to prevent crossover to new harvest.

4. If more than 2-3% of cherries are infected, spray with Super Sumithion.
5. Get help from the extension staff or a knowledgeable farmer when the situation becomes unmanageable.



# 3.5 Antestia bug (Arabica only)

Cause damage through sucking sap from flower buds, flowers, berries, leaves and soft stems which cause flower and berry abortion, cracking (Zebra marks) and rotting of beans, multiple branching (witches broom), and shortening of internodes.



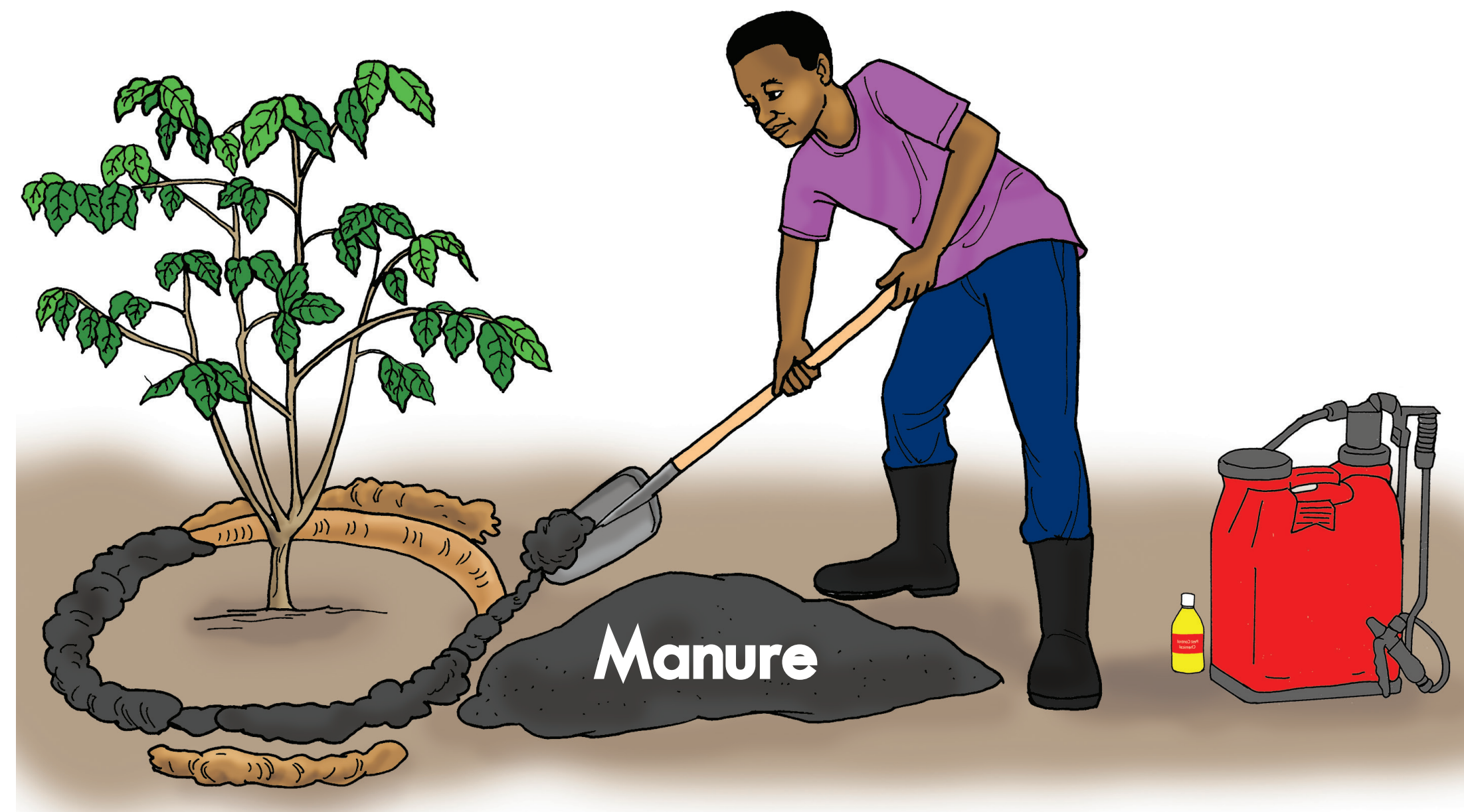
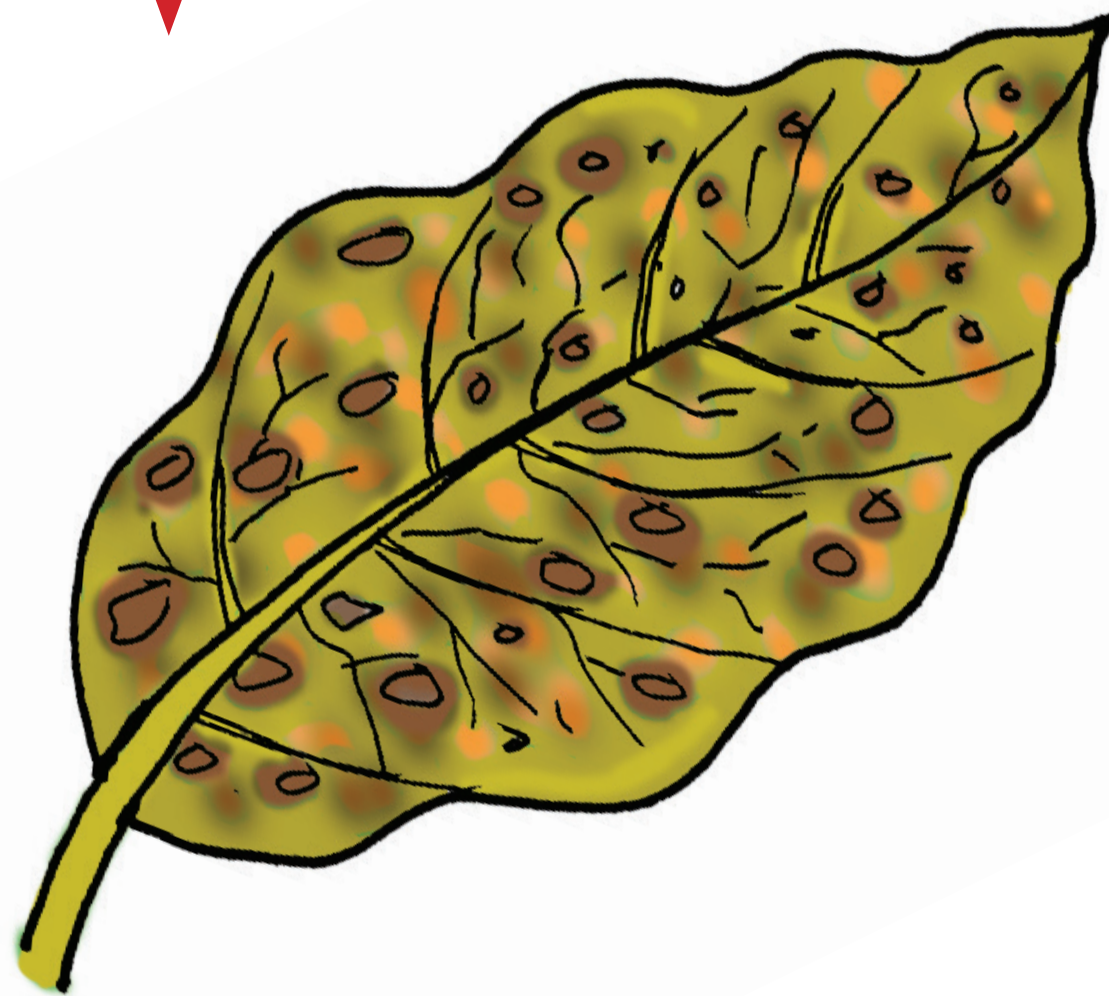
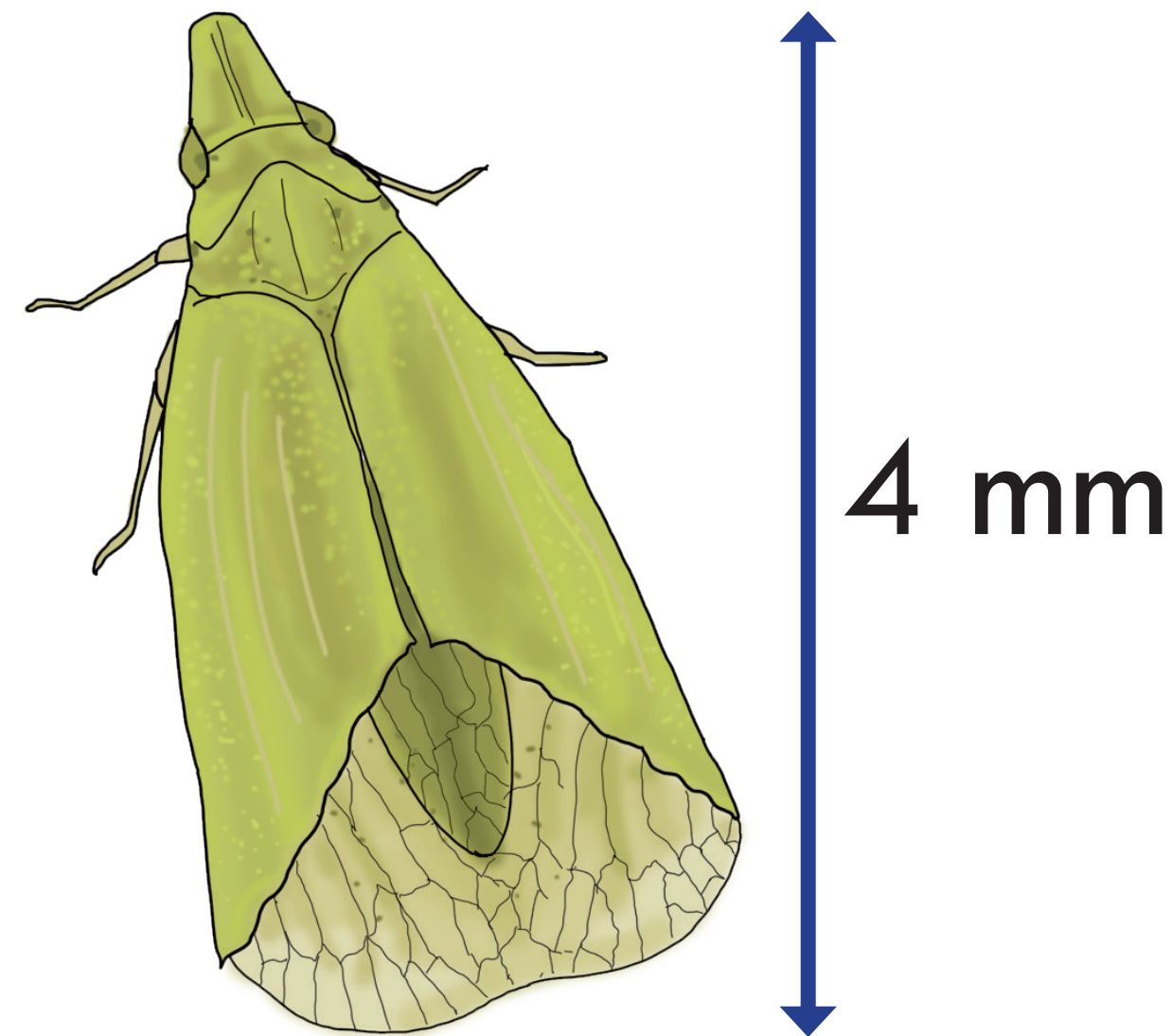
## To control:

1. Prune coffee and shade trees to promote natural control by birds.
2. Monitor and spray with Super Sumithion when 2 bugs per tree are observed.



# 3.6 Coffee lace bug (Arabica only)

1. They suck on the underside of the leaves.
2. Heavy infestation causes general yellowing of leaves.
3. In severe cases, defoliation, berry abortion and dieback may occur.



## To control:

1. Infestation disappears with onset of rain.
2. Apply manure/fertilizer regularly.
3. Only spray when infestation is heavy, using Super Sumithion.



# 3.7 Aphids, leaf mealy bug and scales

## Sucking insects include:

- Green, brown and white waxy scales
- Aphids
- Leaf mealy bugs

Green scales



Leaf mealy bugs



## Chewing insects:

Chewing insects include leaf miners, tailed caterpillars and leaf skeletonisers.

- Their larvae damage coffee leaves.
- Heavy attacks result in leaf-fall leading to reduced crop yield.

Tailed caterpillar



## To control:

- Regularly monitor coffee fields for infestation by sucking and chewing insects.
- Focus chemical control on affected trees.
- Paint a band of at least 15cm with Dursban to reduce attendant ants on affected trees.
- Spot apply contact insecticides such as dimethoate, fenitrothion or cypermethrin based products.
- Spot apply systemic insecticides such as Actara as a soil drench.
- Healthy coffee trees withstand pest damage better.