REPUBLIC OF KENYA

KALRO
Kenya Agricultural & Livestock Research Organization

NAVCDP
NATIONAL AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT

Integrated Management of Mealybugs on Avocado

KALRO E-mimea Plant Clinic

KALRO/NAVCDP Factsheet No. 080/2024

Healthy Avocado fruit
Source: L. Wasilwa KALRO

Mealybug colonies on avocado growing tip. *Source: J. Mulwa KALRO*

Long tail mealybug

Description

Mealybugs (*Pseudococcus longispinus*) are sap-sucking insects that excrete honey dew when feeding. The honey dew attracts ants and causes development of black sooty mold on leaf surfaces, thus inhibiting photosynthesis. They also affect flower and young stem development and are found on leaves, fruit, and young shoots. They can survive for long period of time and can tolerate a wide range of temperatures on hosts and in soil. Mealybugs have a broad host range and can cause losses of up to 100% especially on young seedlings and where management is not applied.

Symptoms

- Blackish sooty mold growing on honey dew produced by mealybugs as they feed.
- Presence of sticky honeydew.
- Whitish wax from colonies of the small, powdery cootony insects.
- Stunted growth.
- Yellow leaves and death of affected plant parts.

Conditions prevailing that contribute to success

- Warm dry conditions favour mealybugs rapid reproduction due to shorter lifecycles
- Alternate host plants in and around the farms act as their multiplication sites (reservoirs)
- Application of pesticides that kill their natural enemies favors mealybugs population up-surges

Management Strategy

The following management options are recommended:

Cultural practices

1. Plant using clean seedlings that are free from the pest.
2. Scout 2-3 times a week for initial symptoms and timely control.
3. Maintain uncultivated edges within the farm to conserve natural enemies.
4. Till the land/ to expose the crawlers to the sun and predators.
5. Remove and dispose infested plants by burying 2 feet deep.
6. Prune the trees to reduce overlapping of branches.
7. Sanitize all farm equipment used in management and harvesting of fruits.
8. Remove any alternative host plants to reduce populations.
9. Apply oil/sticky materials on the trunk to prevent crawlers from climbing the tree.

Other management options

1. Use Neem-based biopesticides e.g. Nimbecidine, Achook, or Neemraj Super according to manufacturer's recommendations.
2. Spray infested plants/plant parts with a mixture of surgical spirit and liquid soap. Mix 25 ml of surgical spirit with 100 ml of liquid soap into 20 litres of water. Repeat, if needed, every three days
3. Spray the affected plants with a biopesticide that is effective against mealybugs, e.g. Beauvitech WP or Lecatech WP or Bacillus thuringiensis based products e.g. Baciguard 16 WDG, 35 WP, Halt 50 WP to effectively manage this pest.

Chemical management

Spray plants with Closer 240 SC according to manufacturers' recommendations.

Note: *Agro-chemicals should be used in consultation with professional practitioners and considering existing cautionary/safety measures, particularly the manufacturer's instructions.*

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