



KALRO/Major Tomato Pest Management Factsheet No. 006/2024

INTEGRATED MANAGEMENT OF WHITEFLIES IN TOMATO

- White flies (“Inzi weupe” in Swahili) are tiny, 2 mm long, winged insects.
- They usually sit on the underside of leaves and fly off when you shake the plants.
- They suck plant sap from the leaves but are mainly problematic because they transmit tomato viruses.
- They also cause leaf distortion and stunting if the attack is very early in plant development
- This can be a serious problem especially in hot areas
- The fly a vector of cassava mosaic virus, cotton leaf curl, tobacco leaf curl and sweet potato virus B



*Adult whiteflies feeding and breeding on succulent of a tomato leaf
Source: KALRO E-mimea Plant Clinic*

Extreme tomato leaf damage due to severe infestation by whiteflies. Source: KALRO E-mimea Plant Clinic

- Develop resistance to many pesticides and therefore IPM is necessary against this pest.

Damage on tomato crop

- The nymphs suck plant sap from the underside of the leaf. Their sap sucking activity may result in wilting and leaf malformation
- Crops are weakened by the feeding of large numbers of whiteflies, whilst the sooty mould impairs leaf function

Management Strategies

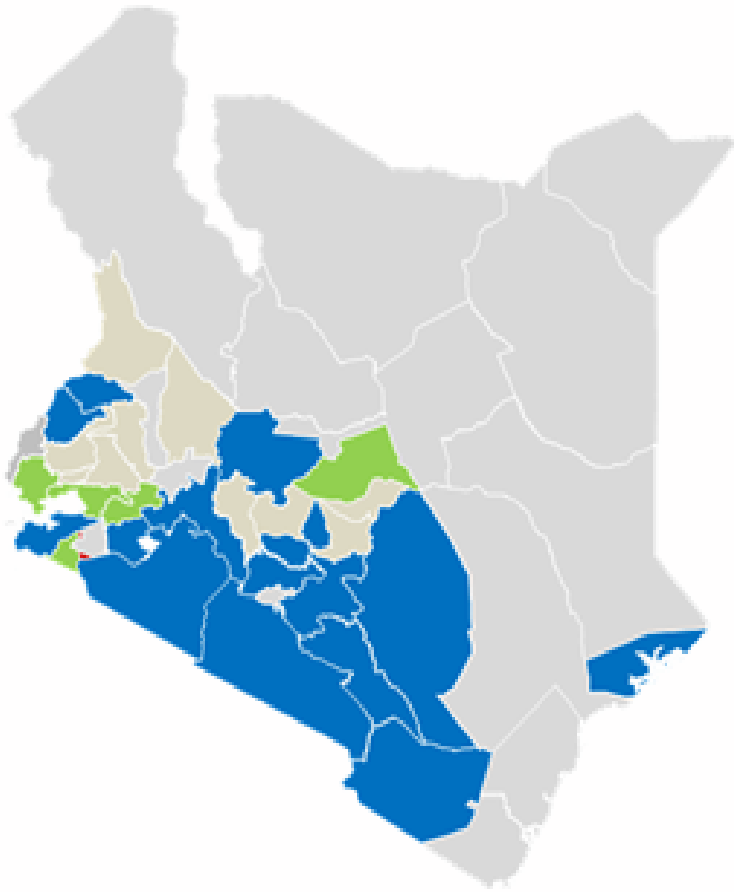
Natural enemies

- *Encarsia formosa*
- *Eretomocerus* spp.

Bio-pesticides

- Use neem-based products e.g. Nimbecidine at a rate of 60ml/20L
- Use *Beauveria bassiana*-based products such as Botanigard ES







Chemical control

- Spray Chlorpyrifos (e.g. Betafos 263 EC, PHI 7 days), Alpha-cypermethrin (e.g. Alfix EC, PHI 14 days), Spinetoram (e.g. Radiant 120SC) based insecticides

Warning! High concentrations of these agrochemicals may cause harm to you (farmer), crops, consumers and the environment.

Legend

 Major tomato producing counties: Kajiado, Kirinyaga, Machakos, Taita Taveta, Narok, Makueni, Bomet, Muranga, Bungoma, Homabay, Laikipia, Nakuru, Lamu, Kitui, Kiambu and Trans Nzoia. (AFA-Horticulture Crops Directorate; 2021 Report)

 Emerging tomato growing counties: Siaya, Meru, Migori, Kericho and Kisumu (AFA-Horticulture Crops Directorate; 2021 Report)

References

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