

Chemical control

- Use pesticides containing recommended active ingredients such as Abamectin or Abamectin + Acetamiprid (e.g. Abalone, Abamite, Agrimech, Dynamec, Amazing Top), bifenthrin (e.g. Thiamerin or Foray) or Flubendiamide (e.g. Belt 480SC) at manufacturer's recommendations.

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



Compiled by: Odhiambo, H., Ochieng, V., Ndambuki, J., Tabu, R., Orayo, M., Thurania, D.M., Lelgut, D., Kirigua, V. and Wasilwa, L.

Edited by: Kinyua, Z.M.

Design and Layout: Nogrecia N. Mnene

For Further Information contact:

The Director General,
Kenya Agricultural & Livestock Research Organization,
Kaptagat Rd, Loresho Nairobi Kenya
P.O. Box 5781 I, City Square, Nairobi, 00200, Kenya
Email: info@kalro.org
Safaricom: +254 722206986/722206988
Airtel: +254 733-333-223/4/733333299/4

KALRO/NAVCDP Tomato Brochure No.107/2024



INTEGRATED MANAGEMENT OF LEAF MINER IN TOMATO





INTRODUCTION

The tomato leaf miner (*Liriomyza bryoniae*) has many host plants and has caused tomato damage in many parts of the world, including Africa.

Life cycle

- Adult females are flies that lay eggs which are inserted in leaves and larvae feed underneath the leaf surfaces, creating a meandering track or “mine.”
- Mature larvae leave the mines, dropping to the ground to pupate.
- The life cycle takes only 2 weeks in warm weather; there are seven to ten generations a year.

Damage on tomato crop

- Leaf miner feeding results in serpentine mines (slender, white, winding trails); heavily mined leaflets have large whitish blotches.
- Leaves injured by leaf miners drop prematurely; heavily infested plants may lose most of their

leaves.
If it occurs early in the fruiting period, defoliation can reduce yield and fruit size and expose fruit to sunburn.



Adult tomato leaf miner (Source: KOPPERT)



Tomato leaf with serpentine mines (Source: NBAIR)
Management Strategies

Cultural control

- Check transplants for leaf miners or mines before planting and destroy any plants that are infested; leaf miners reach damaging levels earlier when infestations begin on transplants.
- Reduce early infestations in a new crop by removing old plantings immediately after the last harvest.
- Use pheromone-laced sticky traps to control male adult population.
- Avoid planting susceptible crops in succession.

Natural enemies and biopesticides

- Predators (syrphid flies, ladybird beetles, *Chrysocharis parksi* and *Diglyphus begini*,) attack leaf miner larvae; left undisturbed, parasites often keep leaf miners numbers below economic injury levels.
- Apply biopesticides based on Azadirachtin (e.g. Magneto 1% EC, Achook 0.15% EC).