

Cabbage leafminer (377)

Summary

- Widespread distribution. In Oceania, several Pacific island countries. A major pest of many important vegetables in the cabbage and legume families, and weeds. Identification needs taxonomic expertise.
- Damage: Eggs laid both sides of leaf under epidermis. Larvae make irregular, pale-coloured mines in leaves that gradually widen; mines have dark green line of faeces in middle. Pupation is in the soil. Adults take sap from leaves (females only) and feed on nectar.
- Spread is by flying and via international horticultural trade.
- Biosecurity: trade in horticultural produce across national borders is a risk and needs careful regulation.
- Natural enemies: many predators and wasp parasitoids.
- Cultural control: weed, nursery and field; plough exposing pupae before planting; check nursery plants before planting out; avoid overlapping crops; handpick or squash leaves with mines; high-value crops - cover soil with mulch preventing adults emerging; collect and burn debris after harvest.
- Chemical control: biorational (i) insecticidal soap, white or horticultural oils; (ii) botanicals (chillies, neem, derris, pyrethrum); (iii) microbials (abamectin, spinosad). Avoid organophosphates and synthetic pyrethroids.



Photo 1. Mines in the leaf of garden nasturtium (*Tropaeolum majus*) caused by *Liriomyza brassicae*.



Photo 2. Close-up of Photo 1 to show the mine and the excreta trail within.

Common Name

Cabbage leafminer, Serpentine leafminer (the same common name is given to other leafminers (see **Fact Sheets nos. 110, 259, 262 & 377**))

Scientific Name

Liriomyza brassicae. See other fact sheets for accounts on separate species (**Fact Sheet nos. 259 & 262**) and, for a general account, (see **Fact Sheet no. 110**).



Photo 4. Cabbage leafminer, *Liriomyza brassicae* (from above).



Photo 3. Cabbage leafminer, *Liriomyza brassicae* (side view).

AUTHOR Grahame Jackson

Information from CABI (2018) *Liriomyza brassicae* (serpentine leafminer). Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/30949>); and from Martin NA (2017) Cabbage leafminer - *Liriomyza brassicae*. Interesting Insects & Other Invertebrates, Plant & Food Research. (<https://nzfactsheets.landcareresearch.co.nz/factsheet/InterestingInsects/Cabbage-leafminer---Liriomyza-brassicae.html>); and from *Liriomyza brassicae* (2021) Polyphagous Agromyzid Leafminers. (http://keys.lucidcentral.org/keys/v3/leafminers/key/Polyphagous%20Agromyzid%20Leafminers/Media/Html/Liriomyza_brassicae.htm). Photos 1&2 P Ridland. University of Melbourne, Victoria, Australia. Photos 3&4 Ella Pirtle, cesar, 293, Royal Parade, Parkville, Victoria, Australia. Photos 6&7 Peter Ridland. University of Melbourne, Victoria, Australia.

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