

Pest Profile



Melon thrip adult
Photo credit: UF/IFAS

Common Name: Melon thrip

Scientific Name: *Thrips palmi*

Order and Family: Thysanoptera: Thripidae

Size and Appearance:

	Length	Appearance
Egg	0.2 mm	Oval or kidney-shaped; colorless to pale white
Nymphs		Yellowish in color with red eyes
Pupa		Often light in color and egg shaped
Adult	0.8-1.0 mm	Soft-bodied with 2 pair of long wings. Females are slightly larger than males. Clear yellow body color, with dark to black short, thick hairs

Type of feeder: The first two nymphal instars and the adults feed on plant tissues. Thrips have unusual mouthparts that consist of a single mandible formed with a structure that serves as a stylet through which plant fluids are first pierced then removed.

Lifecycle: Most flower thrips are female, with females arising from fertilized eggs while males arise from unfertilized eggs, which is a term referred to as arrhenotokous parthenogenesis. Lifecycle durations are temperature dependent. There are six life stages: egg, nymph (first and second instars), prepupa, pupa, and adult. Egg are inserted into plant tissue singly. Once mature, the second instar will drop to ground, where the prepupa and pupa stages will overwinter in the soil. Adults live approximately 2-6 weeks.

Host plants: Likely an introduced pest from Southeast Asia, the melon thrip can cause damage to a wide range of vegetable and ornamental crops, but appears to prefer plants in the family of Cucurbitaceae (e.g., squash, melons, cucumbers) and Solanaceae (e.g., tomatos, peppers, tobacco, potato). Due to the potential for rapid population growth, the melon thrip can also cause significant damage to greenhouse crops.

Description of Damage: Immature (first and second instar larvae) and adults feed on plant leaves along midribs and veins, the growing tips, flowers, and surfaces of fruits. Damage consists of deformation, silvery scars and leaf chlorosis. Plants can be overwhelmed and killed from heavy infestations.

Management: Preventing is an effective strategy to reduce damage before populations of natural enemies can become established and aid in control. Cultural controls consist of man-made screens or plant barriers of non-host plants and removing reservoir plants. There are many effective natural enemies including rove beetles, ants, and predaceous mites from the genera of *Phytoseiulus* and *Amblyseius* in the family Phytoseiidae. Chemical pesticides have been found to have limited effectiveness.

References:

University of California Agriculture and Natural Resources (UC Integrated Pest Management Program). Thrips. Retrieved October 30, 2019 from <http://ipm.ucanr.edu/PMG/r280301411.html>

University of Florida. IPM Florida. Featured Creatures. Melon Thrips. Retrieved October 30, 2019 from http://entomology.ifas.ufl.edu/creatures/veg/melon_thrips.htm