

THRIPS

Description

These are of many species of these small slender insects, 0.5 to 1.0 mm in length. Adults have two pairs of narrow wings fringed with long fine hairs. Colour varies from yellow to brown or blackish-brown. Eggs are laid in a slit cut in the plant tissue. Adults and nymphs feed by drinking sap from punctures of the plant tissue made by mouthparts. The adults can feed for up to 45 days, giving leaves a silver-flecked appearance, as well as malforming flowers and distorting, dwarfing, and mottling foliage.

In the greenhouse, Western flower thrips (WFT) and greenhouse thrips are the two major thrips pests. WFT are particularly harmful because they build up pesticide resistance very quickly. Greenhouse thrips don't build up resistance as quickly and are not as economically important.

Three species of thrips are known to carry impatiens necrotic spot virus (INSV) and tomato spotted wilt virus (TSWV): *Frankliniella occidentalis* (Western flower thrips), *F. fusca*, and *Thrips tabaci* (onion thrips). Thrips must feed on infected tissue while they are in the nymphal stage to acquire the virus. They introduce the virus into plants when their stylet pierces the leaf tissue. Once a thrips picks up the virus it remains infected for the rest of its life. (See INSV in the disease section.)

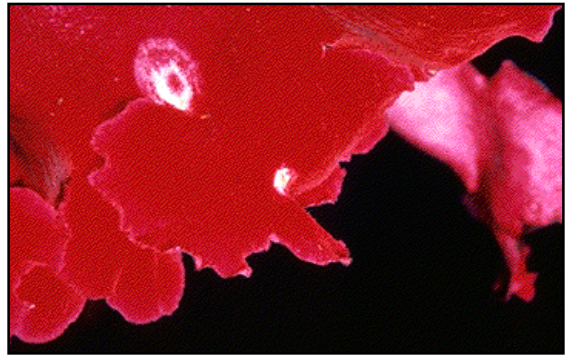


Prepupa Thrips

A.B. Broadbent



Adult Thrips



Thrips Damage on *Sinningia*

J. Matteoni



Thrips Damage on *Rosa*

J. Matteoni



Thrips Damage



Onion Thrips

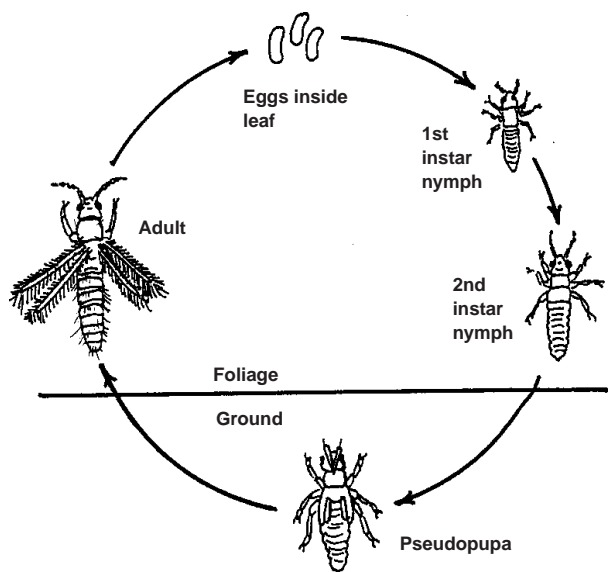
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Life Cycle

A complete life cycle for WFT requires 13 to 28 days with pupation taking place in the soil. WFT do not require a mate to produce eggs; unmated females lay eggs that result in male offspring which in turn can mate with the females to produce more males and females. One resistant female will produce resistant offspring, thus creating a new pesticide resistant population.

A number of different thrips infest blooms and buds of various outdoor plants. These thrips may enter the greenhouse on air currents in summer and cause damage. Outside, adult thrips appear from April to August, and prefer to feed on opening buds, blossoms, and growing shoots. Shortly after, they lay their eggs in flower stems and leaf petioles. The nymphs emerge and feed until early June after which they drop to the ground and pupate. Thrips overwinter, either as mature nymphs, adult females, or as eggs (depending on species), in sheltered sites in the soil, or under the bark of trees and shrubs.

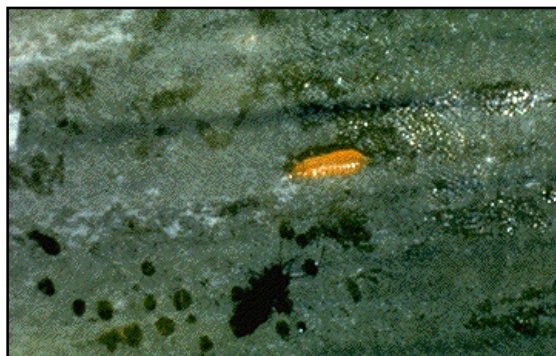
Thrips Life Cycle (13–40 days)



Thrips Damage on *Gerbera*



Thrips Damage on *Gladiolus*



Thrips on *Gladiolus*

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Gladiolus Thrips (*Taeniothrips simplex*)

Adults are black with light markings on wings; young are light yellow in colour with no wings. Both feed on flowers, leaves and corms of hosts. Flowers become discoloured and spotted, eventually drying up and shrivelling. Leaves turn brown and dry out. Infected corms are dark with rough surfaces, producing weak root systems and small flowers and leaves. Overwintering occurs in stored corms.

Weeds should be controlled to decrease alternate areas for thrips to develop in. Blue or yellow sticky traps should be used to monitor populations.