

# WHITEFLY

common names: Sweet Potato Whitefly, Whitefly

scientific name: Order *Homoptera*,

family Aleyodidae, several species

size: Adult--1/25" to 1/16"



**Identification:** Adults are tiny white mothlike insects. Larvae are flat, legless, translucent scales. Both are found on the undersides of leaves. Eggs are tiny yellow or gray cones.

**Biology and life cycle:** Adults and nymphs feed on the undersides of leaves and secrete a honeydew that leads to sooty mold. Females lay eggs that hatch in two days to become tiny scalelike larvae that later pupate. Life cycle takes only twenty to thirty days. Many generations a year. Incomplete metamorphosis.

**Habitat:** Greenhouses, gardens, and field crops. They like tropicals--gardenias, privet, citrus, hibiscus, vegetables like tomatoes, and crops like cotton.

**Feeding habits:** Nymphs and adults suck plant juices and weaken plants. They especially like plants in the tomato and squash families.

**Economic importance:** Heavy infestations weaken plants and spread viral diseases.

**Natural control:** Native parasitic wasps, lacewings, lady beetles, and pirate bugs. Beneficial fungus called *Beauveria bassiana*.

**Organic control:** Spray garlic tea or garlic-pepper tea and seaweed. Release the parasitic wasp *Encarsia formosa* indoors. Manure compost tea, molasses, and citrus oil spray works very well. Best control is from plant oil products.

**Insight:** These pests are more troublesome in phosphorus-deficient soils. Use lots of **colloidal phosphate** and you probably won't see many of these pests. The pests are commonly found in tropical plants in pots. The lack of **mycorrhizal fungi** on plant roots is a strong contributor to the presence of this pest. Whiteflies are one of the harder to control insect pests, but as usual the organic approach works better than the toxic chemical approach. These pure white flies primarily attack weak plants that don't necessarily look weak. High nitrogen synthetic fertilizers are one of the main causes of this pest. Whiteflies are the most troublesome in phosphorus deficient soils. Soft rock phosphate and well-made manure-based compost are these best tools for providing available phosphorus and preventing this pest.

To rid existing infestations, spray plants with garlic tea, garlic-pepper tea, or the fire ant control mixture but the secret weapon is seaweed. Add it to any of the organic sprays and the control will be much more satisfactory. Stimulating beneficial biological activity with organic fertilizer, Garrett Juice and other natural soil amendments will help greatly to control this pretty but annoying pest.

When using a total organic program, you and your plants will get to enjoy a greater population of helpful insects and microbes that are the long term control of this and other pests. In your greenhouse the yellow sticky traps are good to use as a monitoring device and will offer some control.

