



NEWSPAPER ARTICLES

Whiteflies, A Garden Pest (October 27, 2018)

by Anne Skinner, UCCE Master Gardener

Have you ever reached to pick a pepper, kale or an iris flower and a cloud of white insects flew out to greet you? These are whiteflies, a garden pest and nuisance. Groups of whiteflies can be found on the underside of plant leaves. Hot, dry dusty conditions, such as summer in the Valley promote the whitefly and inhibit their natural enemies. The application of insecticides also reduces the number of beneficial predatory insects, which leads to the development of large whitefly populations.

Whiteflies are tiny (1/10 inch), soft bodied, sap-sucking insects found in vegetable and ornamental plantings. They are not true flies, but related to aphids, scales and mealybugs. Adults have a yellowish body and four wings with a white wax covering. Nymphs may be almost transparent yellow or white to black. Warm weather promotes the development of large populations. All stages of the whitefly, from the first nymphal stage to the adult, feed by sucking plant juices from leaves and excreting excess sugars as honeydew. The sticky sweet honeydew attracts ants, which fend off natural enemies of the whiteflies. Sooty mold can develop in the honeydew and can become thick enough to interrupt photosynthesis.

Damage to leaves includes yellowing, drying and leaf drop. Whiteflies affect many vegetable crops, causing distorted, discolored or silver leaves and can contribute to plant decline by interfering with photosynthesis. They may also transmit viruses as they feed. There are numerous species of whiteflies, greenhouse whitefly, iris whitefly, sweet potato whitefly, citrus whitefly and giant whitefly. Vegetables affected include cucurbits, tomatoes, peppers, and cole crops. Flowering fruit trees such as citrus, pomegranate, and avocado may also be affected. Greenhouse and silverleaf whiteflies invade hundreds of flowering ornamental plant species. Host trees include ash, Bradford pear, redbud, ficus, oak, mulberry and toyon. Ornamental plants affected include iris, gladiolus, fuchsia, lantana, Eugenia, begonia, hibiscus, giant bird of paradise, crape myrtle and roses.

Citrus whitefly can cause sufficient sooty mold on the honeydew to interfere with photosynthesis and cosmetically affect fruit. Control of ants, dust and allowing beneficial insects to assist you are the best practices.

Giant whitefly is a larger version of whitefly invading Southern California and particularly a problem in hibiscus, ornamental plants and some fruit trees. They leave waxy filaments on the plant leaves and often lay their eggs in the filaments.

Provide a habitat for natural predators of whiteflies. Natural enemies, such as parasites and predators, including predatory wasps, ladybugs, spiders, lacewing larvae, dragonflies and hummingbirds help keep the numbers of whiteflies low enough to avoid significant damage. There is still the possibility of transmission of a plant pathogen as they feed, but a large population of whitefly nymphs is necessary for serious damage or loss of the plant. A habitat for these beneficial garden residents includes avoidance of insecticides, a variety of colorful flowers for pollen and nectar and a saucer of water to sip on a hot day.



Giant Whitefly

Management is best done before the whitefly infestation is large. Hosing the plants with a strong stream of water is effective in reducing the population if done regularly. The water can also remove the sooty mold. Insecticidal soap spray used in the later day when the temperature drops is then not harmful to plant leaves or beneficial insects. Be sure to spray all of the leaves, including the underside. To be effective, the product needs to make contact with the insect, so repeated applications may be necessary.



Adult greenhouse whiteflies on undersides of leaves.

Reflective mulches in vegetable gardens can act as a repellent. Reflective mulch is available from garden suppliers as rolls of polyethylene coated with a thin layer of aluminum to reflect UV light. First weed the garden, set up an irrigation system, then apply the reflective mulch. Cut 3-4" diameter holes in the covering for the plants. The reflected light from the mulch makes it difficult for the whiteflies to find the plant. It also increases air temperature and photosynthesis, increasing fruit or vegetable yields.

Yellow sticky traps are not very good at 'controlling' small flying insects but are helpful to monitor insect numbers. The yellow color traps attract and trap whiteflies, aphids, thrips, leafhoppers and moths. The grid pattern aids in counting insect numbers and the trap helps in identification of the insect pests in the garden.

Removal and destruction of heavily infested plants reduces the population, allowing natural enemies to better contain the remainder. Avoid the use of insecticides which will deplete beneficial insects and pollinators in addition to the whiteflies. Controlling ants with bait traps or using a sticky product such as Tanglefoot on trees keeps the ants from fending off the predators of whiteflies.

Whiteflies are a persistent and nuisance pest, with the potential to cause plant decline and spread viral diseases among your plants. Always inspect new plants you purchase before putting them into the garden or greenhouse. Good cultural practices such as controlling dust and ants and removal of infested vegetable plants after harvest are always important. Cold weather will naturally reduce their population. UC Pest Note # 7401 on Whiteflies has detailed information, including pictures of the insect, types of whiteflies, major economic hosts of common varieties, description of damage and more management techniques for the insect.

We love to talk plants. Come ask us your gardening questions!

For answers to all your home gardening questions, call the Master Gardeners in Tulare County at (559) 852-3325. Tuesdays and Thursdays between 9:30 and 11:30am; or in Kings County at (559) 852-2736, Thursdays only, 9:30-11:30am; or visit our website to search past articles, find links to UC gardening information, or to email us with your questions: http://ucanr.edu/sites/UC_Master_Gardeneers/

The UCCE Master Gardeners will be available to answer your gardening questions at the following venues in November:
Food Day National celebration @ Food Link, 10-27th, 10-1pm, 611 2nd Street, Exeter.
Visalia Sales Yard (Swap Meet), Avenue 296 @ Hwy 198, 11/1, 8-12pm
Greenfield Garden Workshops – Hanford, Greenfield Ave., North of Lacey Blvd., November 18th, 2:00 pm - Tool Care & Maintenance

You can find us each Saturday at Visalia's Farmer's Market in Sears Parking lot, 8-11 am.