Whiteflies

Whiteflies are tiny, sap-sucking insects that fly around plants when disturbed.

Adults are white and may have darker markings on their wings, while nymphs (immature stage) are oval, legless, and don't move. Nymphs cause most of the damage. Several whitefly species occur in California. Natural enemies often keep them under control. Prevent whitefly problems using reflective mulches, reducing dusty conditions, choosing less susceptible plants, and avoiding pesticides that kill whitefly natural enemies. When management is required, consider using sticky traps, spraying insecticidal soaps or oils, or removing infested plants.

Signs of a whitefly infestation can include:

- Tiny nymphs on the underside of leaves.
- Sticky honeydew on leaves, fruit, or beneath plants, or a covering of black sooty mold.
- Yellowing, silvering, or drying leaves that have whitefly nymphs on them.
- Deposits of white wax with certain whiteflies.

Reduce whiteflies using traps or hand removal.

- Inspect new plants for whiteflies before bringing them into your garden.
- Prune out isolated infested leaves when you first detect them.
- Hose adults off plants with a strong stream of water.
- Hang store bought sticky-coated yellow traps or make your own. Use one trap for every medium-size vegetable plant.
- Promptly destroy infested annuals when the flowering or fruiting period ends.

What about pesticides?

- Choose products that are least harmful to natural enemies—such as insecticidal soaps and oils—and combine their use with the other practices listed above.
- Good coverage, including the underside of leaves, is essential. Repeat applications might be required.
- Avoid using pesticides if natural enemies are present.
- Even the most toxic insecticides are only partially effective against whiteflies.

What you do in your home and landscape affects our water and health.

- Minimize the use of pesticides that pollute our waterways and harm human health.
- Use nonchemical alternatives or less toxic pesticide products whenever possible.
- Read product labels carefully and follow instructions on proper use, storage, and disposal.

For more information about managing pests, visit ipm.ucanr.edu or your local University of California Cooperative Extension office.

Quick Tips

Use reflective mulch to protect young plants.

- Use shiny metallic-coated construction paper or reflective plastic mulch products. These mulches repel whiteflies while plants are small.
- Lay mulch on bare soil, bury its edges with soil, and insert seedlings or seeds into holes in the mulch.
- Plastic mulches require drip irrigation underneath them; paper mulches may be sprinkle or furrow irrigated.
- Remove mulches when plants get large and temperatures get hot.

Protect other insects that help reduce whitefly numbers.

- Many beneficials or “natural enemies” such as lacewings and lady beetles help control whiteflies.
- Look for signs of parasitization by mini-wasps, such as circular holes in nymphs or a change in color.
- Prevent dusty conditions since dust disrupts beneficials.
- Keep ants, which protect whiteflies from natural enemies, out of plants.
- Avoid using pesticides such as pyrethroids, organophosphates, carbaryl, or neonicotenoids.

Sweetpotato whitefly adults and nymphs.