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Agriculture & Natural Resources

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WHITEFLIES

What are whiteflies? Whiteflies are tiny, soft-bodied insects that get their name from white, waxy substances secreted by special glands on their abdomen. The adults coat their bodies with this white wax.

How do whiteflies create damage? Whiteflies can injure plants by sucking juices which causes wilting, stunting, or even death. Whiteflies also secrete a sticky substance called honeydew. This material can coat any object, including leaves, fruit, windshields, concrete walks, etc. on which it falls. In addition, several molds, collectively called "sooty molds" because of their black appearance, can grow on this honeydew resulting in an unsightly, sticky mess. Sooty mold can make fruit unmarketable and can block sunlight from reaching the leaf surface thus reducing photosynthesis. When populations are extremely high, swarming may become a nuisance.

How do whiteflies buildup so rapidly? A single female whitefly may lay from 150 to 300 eggs during her lifetime. During the hottest part of the summer, whiteflies may develop from the egg stage to an adult that is ready to lay more eggs in as few as 16 days. In the absence of natural enemies, a few individuals can become thousands in a very short period of time.

What plants do whiteflies attack? Some whiteflies, such as the silverleaf whitefly and the greenhouse whitefly, attack a very large number of plants. Silverleaf whitefly for example, has over 500 hosts. Other whiteflies are restricted on their hosts and attack only a few plants.

How can I control whiteflies? Whiteflies are often very difficult to control. Their location on the underside of the leaf makes it difficult to deliver insecticides to the site where they are found. Also, whiteflies rapidly develop resistance to the insecticides used against them. Remember, insecticides can be dangerous. If you choose to use an insecticide, read and follow the label directions carefully.

Is biological control effective in combating whiteflies? Whiteflies are attacked by a number of predators and parasitoids. Whitefly nymphs are eaten by green lacewings, ladybugs, minute pirate bugs, big-eyed bugs, and damsel bugs. In addition, whiteflies are frequently attacked by a number of native and introduced parasites. The ash whitefly is now under very effective biological control throughout California. University of California scientists discovered a tiny parasitic wasp that feeds on the developing nymphs. This wasp has been released throughout the state and ash whitefly is now largely under effective biological control.

Are there methods other than insecticides and biological control available to manage whiteflies? Washing plants, particularly ornamentals, can sometimes be used to control whiteflies. Spraying (washing) with Safer-Soap® helps dislodge the whiteflies from the leaves. Follow label directions carefully. Plants should be washed at least weekly and more frequently during periods of heavy infestations.

*Adapted from "FAQ's" About Whiteflies, UCKAC, by T.L. Gross
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