

Aphids

Various species

Damage:

Several types of insects suck nutrients from the plant's vascular system. Aphids are common and their feeding causes leaf distortion and stunting, and can transmit viruses. Populations grow quickly in warm weather, and sooty black mold will grow on the insects' sugary exudates.

Identification:



Aphids are well hidden under leaves; the white empty skins from moults or their sticky exudate are the first symptoms likely to be noticed, even before their feeding causes leaf distortion.

Spread:

Aphids tend to build up rapidly in the spring with the start of warm weather, especially in tunnels. The first aphid individuals to colonize will be winged, but the subsequent population build up is by clonal production of live young, and is exponential. When aphids are crowded, winged individuals will again be produced so they can disperse to new plants.

Control:

Plant production	Nurseries must control aphids carefully because they are virus vectors, and they typically do so with insecticides. If using plug plants, inspect them carefully to make sure they are free of insects.
Pre-flower	Scout the plants carefully; sticky traps can alert you to when adults are first flying into the field, but are poor indicators of aphid infestation in the crop because the clonal individuals that cause damage do not have wings. Colonies often occur in 'hot spots,' rather than uniformly. Some of the more effective and long lasting insecticides can only be used before flowering or with a 7 day withholding period, so scout carefully just before flowers open and consider an application at this time.
Flowering and fruiting	Aphids are sometimes adequately controlled by natural predators (lacewings, parasitoid wasps, etc), especially later in the summer when their populations have built up, provided that they are not disrupted by insecticide use. Other times their control requires an insecticide, and priority should be given to use one that conserves predators. See the industry list for details.