

Aphid Damage to Pears

petal-fall application of parathion or malathion will effectively control all species damaging to pear fruit

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Pear fruit damage by aphids has been increasing in California during the past few years.

Collections of aphids from several pear-growing areas have shown that three species are involved: the cotton or melon aphid, *Aphis gossypii* Glover, the bean or dock aphid, *Aphis rumicis* Linn., and the green peach aphid, *Myzus persicae* (Sulzer).

Damage

The damage to pear fruit is not caused by the feeding of the aphids on the fruit, but by their production of honeydew which drips on the pears.

On young fruit, the honeydew may cause a blackening of the entire pear and a drop of the fruit; on mature fruit, the honeydew may produce a tear-drop shaped spot or a speckling of one side of the pear.

The tear-drop spot is commonly encountered in light infestations where

honeydew collects in a small area on the fruit.

The more intensive speckling is found in heavy infestations where an entire side of the pear may be covered with honeydew. This speckling is different from russet produced by spray injury or other factors: the skin of the pear becomes dark brown and the lenticils turn black.

The honeydew quickly hardens on the fruit and is not soft and sticky, which makes its removal very difficult to accomplish.

It is not known if the honeydew itself causes a burning of the skin of the fruit. Most of the blackening may be caused by the growth of a black smut fungus in the honeydew.

Spring Control

Aphids feed and multiply on the tender new growth early in the spring. Terminal shoots and sucker growth are most frequently attacked. Honeydew produced by the aphids drips on fruit growing below these infested spots.

Normally, the aphids are found on pears early in the season and persist until hot weather sets in. In some seasons, however, when temperatures remain relatively cool, the aphids may be found up to harvest.

To date there is no evidence to indicate that aphids feeding on the new growth have any marked effect on the vigor of the trees. The main damage factor is the honeydew on the fruit.

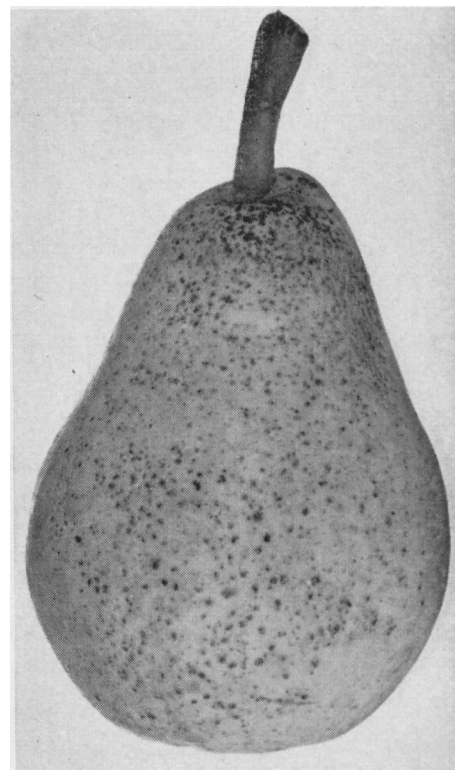
All three species of aphids on pears breed on a wide variety of weeds found in or near the orchards. All three species migrate readily. For this reason, they might reinfest an orchard following chemical control measures.

Aphids on pear may be controlled by treatment with chemicals in the early season.

Spray Treatment

An application at petal fall of parathion at one pound 25% per 100 gallons or malathion at two pounds 25% per 100 gallons will effectively control aphid infestations.

Retreatment may be necessary, if cool



Speckling of the side of a pear caused by aphid honeydew.

weather persists and reinfestation occurs from surrounding host plants. In most seasons, one petal-fall application should result in adequate aphid control for the season.

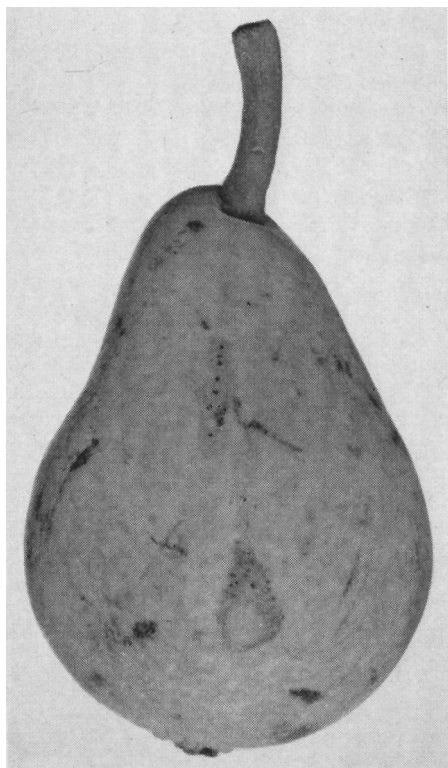
This early season application of parathion or malathion not only controls aphids, but gives some relief if early-hatching red spiders, such as the brown almond mite and European red mite, are present.

Because aphid-damaged fruit is not normally noticed until harvest, growers should check their orchards in early spring for the presence of aphids on sucker growth and terminal shoots and initiate control measures before fruit is damaged.

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Tear-drop spot on pear caused by aphid honeydew collected in a small area.