

THRIPS ON CHERRIES

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What thrips species bug my cherry trees? That is an important question since the two thrips species which can occur in orchards at this time of year cause very different damage. One species is **western flower thrips**; the other is **pear thrips**. The biology of these two species is similar in early season. Both pupate in the ground and they emerge pretty much at the same time beginning in mid-March and lasting through April. However, western flower thrips has several generations while pear thrips has only one generation. Thrips are very small insects which often occur in very large numbers around bloom time. In fact, thrips are attracted to blooming plants. Western flower thrips and pear thrips look similar and are difficult to distinguish except that pear thrips is generally a little darker. To be sure about the identity of thrips present in an orchard it is important to collect adults (best done with a beating tray and aspirator) and examining them under a stereomicroscope. If you need help with identifying thrips please get in touch with Lynn Long or contact us at (541) 386-2030.

Western flower thrips is produced in large numbers on native low-growing vegetation which is commonly found near cherry orchards in the drier growing districts. When adults emerge from the ground they often migrate to blooming cherry trees. The principal damage caused by western flower thrips at bloom time are egg-laying punctures which show up as small scars and depressions on the fruit. Often the scar is surrounded by a pale area which fortunately colors over as the cherry matures.



Generally there is no downgrading associated with this damage unless egg-laying scars are very numerous. Therefore, control of western flower thrips on cherries around bloom time may only be necessary in exceptional cases. Thrips feeding on cherries close to harvest seems to pose a more serious threat. Later generations migrate to cherry trees once the native vegetation begins to dry up. Last year several cherry growers reported silvery or whitish surface blemishes on Sweetheart and Lapin cherries which resulted in considerable downgrading. The blemishes were usually circular, 3/8 to 1/2" in diameter, generally occurred where fruit was touching, but were not associated with surface depressions (in contrast to mildew damage). Similar damage has been observed on cherries in Yakima and other growing districts for several years and has been related to the presence of thrips. Also, whitish or silvery surface discolorations due to thrips feeding have been described for other stone fruits such as nectarines.

Pear thrips adults destroy the bloom on fruit trees. Pear thrips can be found on all pome and stone fruits including pears, apples and cherries. If present in large enough numbers damage to blossoms can be severe making them look burned as if affected by freezing

temperatures. When blossom damage is heavy you may not get much of a crop. In contrast to western flower thrips, pear thrips only has one generation. Pear thrips are primarily a threat in orchards which border wooded areas where deciduous trees such as big-leaf maple predominate. Deciduous trees are favorite hosts of pear thrips and can produce large numbers of thrips which then spread into orchards. The Hood River Valley is much more likely to have pear thrips problems than The Dalles because of the presence of preferred hosts in the vicinity of orchards.

Monitoring thrips is key to preventing damage. Thrips adults can be conveniently monitored with a beating tray by taking 25 to 30 tray samples per block. In addition, leaves and fruit clusters should also be inspected for presence of immature thrips. Pay particular attention to blocks which border pastures or open areas with native vegetation and blocks which experienced fruit damage last year. Unfortunately, we don't have a good understanding of what constitutes an economic threshold for thrips, i.e., how thrips numbers relate to damage and at what thrips levels controls should be applied. Cherry blocks should be inspected on a weekly schedule until harvest to guard against the surface feeding which occurred last season.

Thrips control. Most likely thrips control around bloom time will not be necessary in most orchards unless pear thrips is the dominant species. Pear thrips is more common in the Hood River Valley than in The Dalles due to presence of native hosts in the area. Western flower thrips, on the other hand, is likely to be of greater concern in The Dalles. Thrips have natural enemies which help to control them. However, biological control alone cannot be relied upon to prevent damage when thrips numbers are high. If thrips control is deemed necessary growers have to resort to the use of insecticides. There are only two choices for cherries: **Thiodan** (endosulfan) and **Success** (spinosad). Growers should pay particular attention to border rows since thrips generally move into orchards from the outside and are heavier along the borders.