

Tarnished plant bug management

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Tarnished plant bug (TPB) (Lygus bug) adults are about ¼ inch long, oval, flattened, yellow to greenish brown, and have dark markings on their wings. The immature forms are pale green.



Tarnished plant bug adult

There are 3-5 generations of this pest each year. Adults become active in early spring and lay their bow-shaped eggs into stems, and leaf midribs. Egg hatch takes place about a week later, and the green-yellow nymphs develop through 5 instars, reaching the adult stage in approximately 30 days.



Tarnished plant bug nymph

The feeding by Tarnished plant bugs is one of the causes of irregularly-shaped, catfaced strawberries. The insects damage fruit by puncturing and then sucking the contents of individual seeds; which stops development of the berry in the area surrounding the feeding site. Tan-brown seeds that are large and hollow are an indication of TPB damage. If you see deformed fruit in the field, you should inspect the fruit to see if the damage is due to tarnished plant bug or frost. Frost often kills or deforms the king berries, leaving the secondary berries with little or no damage. Tarnished plant bugs usually cause little damage to the king berry, while destroying secondary blooms. When trying to make a distinction between frost and tarnished plant bug damage you should examine the entire



Tarnished plant bug damage

cluster. With frost damage, healthy and damaged fruit are on the same cluster. With tarnished plant bug damage, the entire cluster is usually damaged. Tarnished plant bugs usually damage the tip of the berry first, giving the berry the characteristic 'seedy end'. Most of the time customers will not notice minor tarnished plant bug damage. With frost damage, any side of the berry can be deformed. If the sides of the fruit are damaged, and the tip is not seedy, you have frost damage. Quite often, with frost damage, you will see a suture mark between the normal and deformed sides of the berry.



Frost damage

Field scouting involves shaking several (10-15) selected flower clusters sampled from across a field over a piece of white cardboard to dislodge nymphs. If one nymph per cluster is found treatment is recommended.

Chemical control: Brigade, Thionex, Danitol, or a combination of Brigade and Rimon (Brigade will control the adults while Rimon will disrupt the cuticle formation of the larvae) will reduce TPB damage.

Cultural control: Control weeds along roadways, ditches, and field borders to help prevent spring buildup of TPBs. Overwintered TPBs lay eggs in weeds in February and March that hatch in late March or early April. Weed control should be done in April while TPBs are still nymphs. Once adults are present on weeds or crimson clover, they will migrate into strawberries when the weeds/clover are removed. To avoid adult migration in spring, mow or disc under cover crops, especially legumes, before they flower and while TPBs are still in the nymphal stages.

Biological control: There are several predators that feed on the immature stages of TPB. These include bigeyed bugs, damsel bugs, minute pirate bugs and several species of spiders. These natural enemies will help reduce overall TPB populations.