

White Apple Leafhopper

March, 2016

Hosts

Apple, pear, prune

Damage

Leaves - White to yellowish stippling caused by feeding of nymphs and adults.

Fruit - Brown specks of leafhopper excrement on skin can be removed by washing or wiping; excrement around stem base difficult to remove. Leafhopper damage to leaves has not been shown to affect fruit colour or size; however, high populations may affect newer apple varieties that are sensitive to stress.

If very numerous, leafhoppers may be a nuisance to fruit thinners and pickers.

Identification

Nymph - White to pale yellow-green, elongated with rounded head and pointed hind end (usually curved upwards), 1-2.5 mm long.

Adult - Yellowish-white, 3 mm long, with wings held roof-like over body.

Life History

White apple leafhoppers overwinter as eggs inserted in the bark of twigs, branches and water sprouts. Egg hatch begins during bloom. Nymphs feed on leaves until they become adults in June. New adults insert eggs into the midribs of leaves. Second generation nymphs appear in late July to mid-August and mature into adults, which lay overwintering eggs. The first hard frost in the fall will kill adults.

Monitoring

Counting nymphs on the undersides of randomly-selected leaves from a number of trees will give an estimate of average population density per block. Begin monitoring about mid-May (first generation) and again in mid-July (second generation).



White apple leafhopper damage to leaves



White apple leafhopper nymph



White apple leafhopper adult

Control

Cultural - Avoid excessive nitrogen applications to reduce succulent growth and thereby limit development of leafhopper populations.

Chemical - If leafhoppers were a problem the previous year and leafhopper nymphs are easily found on leaves, chemical control may be warranted. Admire, Assail, Clutch, Calypso, and Thionex are most effective when applied against first-generation nymphs just before adults appear (usually petal- fall or later). Research shows neonicotinoid products such as Alias, Admire, Assail and Clutch can cause mite populations to increase. Therefore do not apply more than two applications of any of Alias, Assail or Admire per season regardless of target pest (codling moth, aphids, leafhoppers, leafminers) to avoid possible mite flare-up. Assail applied when codling moth is laying eggs will aid in control of codling moth.

Apply Sevin against second-generation nymphs (late July-early August). Sevin applied for fruit thinning will also control leafhoppers. Because Sevin can harm predatory mites, monitor mite population levels in blocks treated with Sevin for fruit thinning and with Alias, Assail, Admire or Sevin for leafhopper control. This is especially important if you use Sevin and Alias, Assail or Admire in successive years.