



Stone Fruit Commodity-Based Pest Survey



Cherry Bark Tortrix

Enarmonia formosana

Introduction

Cherry bark tortrix is a pest that is damaging to ornamental cherries along the Pacific Coast. In Eurasia, it is considered a pest of minor importance. The first detection in North America was in 1990 in southern British Columbia; the moth was later found in the State of Washington in 1991 and has since spread to Oregon.

Biology

Cherry bark tortrix adults (Figure 1) have a long flight period during the year; in Washington State, the pest actively flies from April to September and produces one generation per year. It lays its eggs on tree bark either singly or in groups of two or three, typically near wounds or previously infested areas. Eggs hatch in 2 to 3 weeks; larvae then feed beneath the bark, where they overwinter and pupate the following spring. Pupation occurs in a silken cocoon near the surface of the bark.

Symptoms

The cherry bark tortrix prefers old wounds in mature trees, but it has infested younger plants in the United States. Its larvae can also attack damaged trunks, limbs, or pruning scars on branches. Successive generations of larvae can infest the same areas of host trees, enlarging the tunnels.

The larvae's feeding tunnels can crack a host tree's bark, causing gum-like resin to ooze from the bark's crevices. Infested trees often have brown, silk-lined tubes of frass (insect excrement) protruding from the bark. Pupae can be found protruding from the bark even after adults have emerged. Although damage is usually limited to bark tissue, the cherry bark tortrix may also damage the cambium layer of the tree, which is the layer that produces new tissue and is responsible for a tree's annual increase in girth. Damage to bark can cause swellings and cankers and may eventually lead to the death of limbs or trees when infestations are high.

Weakened and wounded trees become more attractive to secondary pests, which can cause indirect damage to trees and other host plants. Damage from the cherry bark tortrix (Figure 2) can also increase a tree's susceptibility to unfavorable weather conditions. Infestations of cherry trees usually crop up near the base of the trunk, while infestations in apple trees commonly occur on the undersides of the main branches near the trunk and on the trunk near these areas.



FIGURE 1. Adult cherry bark tortrix (*Enarmonia formosana*). Photo courtesy of Eric LaGasa, Washington State Department of Agriculture, Bugwood.org.

Hosts

Apple and crab apple (*Malus* spp.); almond, apricot, cherry, nectarine, peach, and plum (*Prunus* spp.); firethorn (*Photinia* spp., *Pyracantha* spp.); hawthorn (*Crataegus* spp.); pear (*Pyrus* spp.); mountain ash (*Sorbus* spp.); and quince (*Cydonia*).

Distribution

This pest is widely distributed throughout Europe, extending into Siberia. It is also found in Northern Africa and was introduced into Canada and the United States in the 1990s.

Identification

This species can be identified by examining the form and structure of the pest (morphological characteristics). Adults can be recognized by the colors and patterns found on their forewings and distinctive genitalia. Descriptions of diagnostic features can be found in Dang and Parker's first records [Dang, P.T., and Parker, D.J. 1990. First records of *Enarmonia formosana* (Scopoli) in North America (Lepidoptera: Tortricidae). *Journal of the Entomological Society of British Columbia* 87: 3–6.].

Survey

A trap and lure combination is the common method used to survey for this pest. Details on trap type and lure compounds can be found at <http://pest.ceris.purdue.edu/services/napisquery/query.php?code=cam2012>.

What Can We Do?

If you find an insect that you suspect is the cherry bark tortrix, please contact your local extension office or State plant regulatory official to have the specimen properly identified. For contact information, visit www.aphis.usda.gov/StateOffices, www.nationalplantboard.org/member/index.html, or www.nifa.usda.gov/Extension/index.html.

References for the above information can be found on the Cooperative Agricultural Pest Survey (CAPS) Web site at <http://caps.ceris.purdue.edu/stonefruit/references>.

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FIGURE 2. Damage caused by cherry bark tortrix. Photo courtesy of Eric LaGasa, Washington State Department of Agriculture.