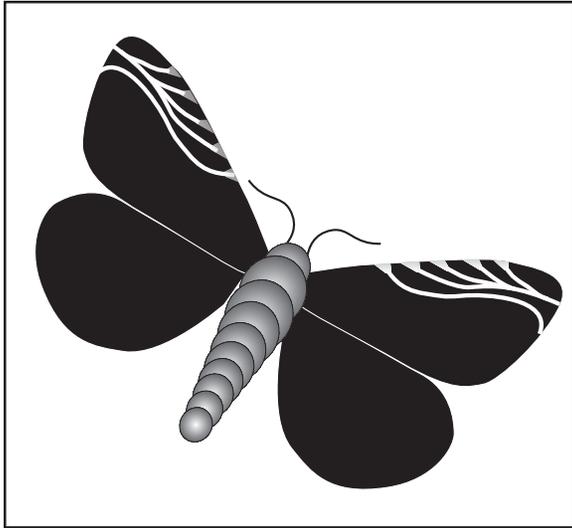


NEW PEST ALERT

Cherry Bark Tortrix Moth



EC 1409-E • Reprinted June 1993

Oregon State University
Extension Service and
Oregon Department of Agriculture

New Pest Alert

CHERRY BARK TORTRIX MOTH

R.L. Westcott and J.D. DeAngelis

“New Pest Alerts” cover selected pests that are likely to have a major economic impact on Oregon’s agriculture. Either these pests are new to Oregon, or they may arrive within months or a few years.

Each publication presents information about damage potential, description, life history, host plants, injury symptoms, distribution, and control methods.

Rapid detection of a new pest’s entry into Oregon greatly minimizes its initial economic impact and long term effects on agricultural production. If you see a pest described in a “New Pest Alert,” contact your Extension agent or a representative of the Oregon Department of Agriculture.

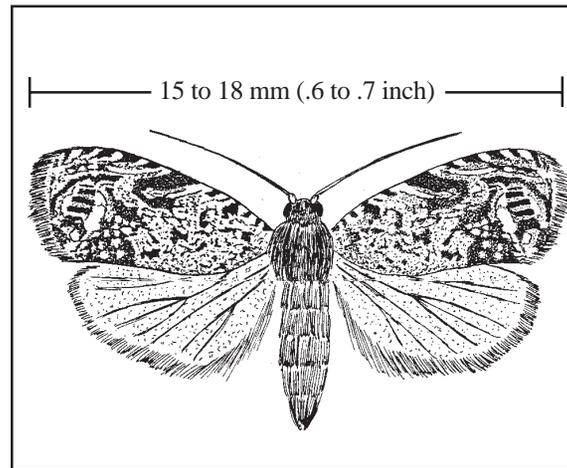


Figure 1.—Cherry bark tortrix. Note the wingspan of 15 to 18 mm and the distinctive wing markings.

R.L. Westcott, taxonomic entomologist, Oregon Department of Agriculture, and Jack D. DeAngelis, Extension entomologist, Oregon State University.

Background

The cherry bark tortrix (CBT) (Fig. 1), *Enarmonia formosana* Scopoli (Lepidoptera: Tortricidae), is an introduced moth pest of Eurasian origin where it ranges from Denmark to Siberia in the north and France to Algeria in the south.

CBT was first detected in North America during 1990 in southern British Columbia, Canada. The first recorded U.S. contact was in far northwestern Washington in February 1991. CBT distribution in the Old World suggests that cold will not limit the moth’s range in Oregon. Warmer, drier areas may inhibit its spread, since eggs apparently die when exposed to temperatures above about 90° F.

Damage potential

CBT larvae prefer cherry and plum (*Prunus*) but attack other rosaceous trees such as apple, apricot, firethorn, mountain-ash, nectarine, peach, pear, and quince. In Washington, CBT has only been found on mature cherry and apple. The larvae feed under the bark, making irregular tunnels and causing the bark to loosen and crack. The first indication of attack is the exuding of gum-like resin, which often is mixed with fecal pellets and silk. The trunk and larger limbs of bearing fruit trees are affected, usually at pruning wounds.

Heavy infestations cause large swellings and cankers and can eventually kill limbs or the entire tree. Nursery stock is subject to attack at graft sites and at stem tips where repeated clipping of shoots causes formation of extra bark.

CBT appears to be a pest primarily of older trees. This has serious implications for stone fruits, which tend to have more bark irregularities and a long orchard life, and for mature ornamentals—particularly grafted varieties. Many of the latter are valuable shade and specimen trees. Nursery producers may also experience serious problems.

Description of life stages

The egg has these characteristics:

- measures 0.7 mm
- round, flattened, and slightly domed
- milky white when laid
- clear red in 2 or 3 days

The mature larva is:

- 8-11 mm (.3 to .4 inch) long
- pale gray or flesh-colored
- with scattered small pale gray spines
- yellowish-brown head

The pupa is:

- 7-9 mm (.3 to .4 inch) long
- light brown with bands of small spines dorsally on the abdomen
- found in a dense silken cocoon.

With a wingspan of 15 to 18 mm (.6 to .7 inch), the adult looks like the codling moth but is more ornately decorated. The forewings are dark brown, intricately patterned with light orange and metallic gray, with five equally spaced whitish spots along the outer margin. The hindwings and abdomen are dark grayish-brown. The hindwings also have a light colored fringe.

Life history

CBT larvae overwinter under bark. During spring, they resume feeding and eventually pupate in a silken tube that protrudes beyond the bark surface where they were feeding.

In Europe, pupation takes place from April until late August and lasts about two weeks. Adults fly from late April to September and are most active in the early morning; some may be attracted to lights at night.

Eggs are laid on tree bark, in crevices, or under loose bark, primarily at wounds (mechanical or old infestations). Eggs are placed singly or in overlapping groups of two or three and hatch in two or three weeks.

Newly-hatched larvae tunnel in all directions in the outer sapwood, while subsequent stages feed from the bark to the cambium layer but do not attack wood.

Control methods

Chemical controls in Europe have consisted of dormant oil and insecticide applications against overwintering larvae. These controls are supplemented by summer branch and trunk sprays similar to those used against earwigs.

Application methods for the dormant treatments are similar to application methods for the peach tree borers (clearwinged moths).

Insecticidal sprays applied at 3-week intervals throughout the growing season have been used. The prolonged flight period, however, may make measures aimed at controlling adult moths impractical.

Like the majority of wood boring and feeding insects, CBT mostly damages injured or otherwise stressed hosts. It is important to keep host plants as vigorous as possible.

Cultural controls include removing loose bark and pupation chambers in the spring where possible, and removing and destroying heavily infested branches or trees.

Detection methods

Although time consuming, it is easy to examine for injured bark areas. Because several native insects cause similar damage, however, it is necessary to collect larvae and have them examined in a laboratory for confirmation of CBT. Adults can be caught in pheromone traps placed from May to September.

Trapping in western Washington during 1991 and 1992 detected CBT as far south as Pierce County. Moths have been captured from mid-April to September. CBT has not been detected in eastern Washington.



Oregon Department of Agriculture

Extension Service, Oregon State University, Corvallis, O.E. Smith, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties.

Oregon State University Extension Service offers educational programs, activities, and materials—*without regard to race, color, national origin, sex, age, or disability*—as required by Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973. Oregon State University Extension Service is an Equal Opportunity Employer.

