July 2010

Invasive Species of the Month

Light Brown Apple Moth (*Epiphyas postvittana*)

An adult light brown apple moth (left) - photo courtesy of Todd Gilligan. Damage to plants caused by light brown apple moths (middle) - photo courtesy of California Department of Agriculture.

What? Light brown apple moths (LBAM) are small brown to brownish orange moths that are about 10 mm long when resting with wings folded. Males typically have a darker area on the distal half of the wings that is reddish brown. The adults are highly variable in color. Damage caused by LBAM includes the destruction, stunting, or deformation of seedlings, damage to fruit tree crops, and damage to ornamental plants that lessens their value. LBAM feeds on over 1,000 different plants, including 250 types of fruits and vegetables. LBAM has been reported as an economic pest of apples and grapes in New Zealand and Australia. This moth is of particular concern because of its broad host range and ability to survive in a wide variety of climates. Several countries, including Chile, Peru, South Africa, South Korea, Mexico, and Thailand list LBAM as a quarantine pest and Canada has regulations in place. LBAM feeds primarily on pome and stone fruits (apple, pear, sweet cherry, apricot, nectarine, peach, plum, and hawthorne). However, LBAM can survive by feeding on a wide range of host plants (more than 250 plant species), including blackberry (and other cane berries), broccoli, butterfly bush, cabbage, camellia, cauliflower, clover, alfalfa, peas, beans, cottonwood, English walnut, grape, hops, ivy, mint, mustard, oak, pine, potato, rose, scotch broom, and willow.

Where? The light brown apple moth is originally from Australia. It has become established in the British Isles, Hawaii, New Caledonia, and New Zealand and has recently been detected in Marin, Contra Costa, San Francisco, San Mateo, Napa, Santa Cruz, Monterey, Santa Clara, Solano, and Los Angeles counties in California.

Lookalike? Adults, larvae, and other life stages are similar to other moths. As a result, identification can only be performed by a trained entomologist.

What can you do?

Don't transport any plant materials, including fruits and vegetables, to Oregon from California or from foreign locations.

In grapes, apples, kiwifruit, plums, avocados, and citrus, LBAM larvae can feed directly on the fruit, and resulting feeding damage renders fruit unmarketable. Photo courtesy of the University of California, Riverside.

The greatest economic impact comes from larval feeding on the fruit. Quite often this feeding causes irregular brown areas on the surface. Occasionally, the larvae enter the fruit to feed. Photo courtesy of HortNET.

How will we know if LBAM comes to Oregon?

The Oregon Department of Agriculture places light brown apple moth traps in high risk counties in the state to detect infestations.