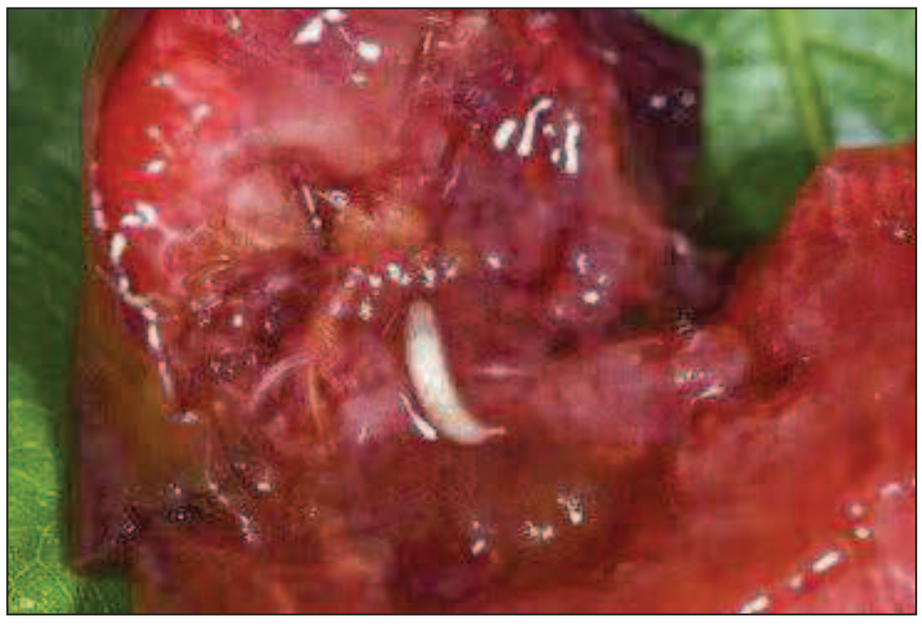
Protecting against *pests*

Some invasive insects can be controlled with insecticides, others can't



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The larvae of a Spotted Wing Drosophila (SWD) tunneling around the flesh of a cherry.

PHOTO COURTESY OF OSU EXTENSION

Native to China and the Korean peninsula, the Spotted Wing Drosophila (SWD) is a predator to cherry and berry crops.

STEVE RENQUIST
OSU Master Gardener

Question: For most of my long gardening career, I have had great success growing fruits and vegetables in the mild climate of Douglas County. Then, during the past three to four years, I began losing crops to insect pests or disease. It started with small white worms or larvae getting into my cherry and berry crops. Once they get in the berries, the berries get soft and mushy.

I have also noticed on many of my apples and pears that I am getting rough, slightly dark spots on the surface, and brown flesh under the skin. These spots are not caused by codling moths tunneling in the fruit from the core. What are these pests, and how should I control them?

Answer: What you are describing are two serious pests that have arrived in Oregon during the past five years. The first pest that is attacking the cherry and berry crops is called the Spotted Wing Drosophila (SWD). This vinegar fly is native to China and the Korean peninsula. It arrived in California around 2009 and has now spread across all the fruit and vegetable growing regions of the country.

SWD are closely related to the common vinegar flies that are attracted to ripe fruit when left in your kitchen or garage in late summer. The big difference between the two, however, is the SWD females can lay eggs in ripening fruit like cherries and berries while the common vinegar flies can't. Once those eggs hatch, the larvae can tunnel around in the flesh, making it vulnerable to soft rots.

These small vinegar flies are most destructive as the fruit gets near full size and starts to color. It is at this point that the females start to lay their eggs in the ripening fruit. It is very helpful to monitor for this pest by putting out 12 to 16-ounce clear plastic cups and lids with about 1 to 2 inches of vinegar in them suspended on the cherry tree or berry crop trellis system when the fruit is still green.

PHOTO COURTESY OF STEVE RENQUIST

A vinegar trap can help monitor the amount of Spotted Wing Drosophila (SWD).

The cups should have three to four holes punched in them about two-thirds up the side of the cup. A handheld paper punch or awl punch will make a hole about 5/16 of an inch in diameter. Using this type of trap will alert you to the pest pressure in your area as the fruit begins to ripen.

When the fruit starts to color, you will need to make a control application of an effective insecticide. There are several low-residual products available at garden stores. Recommendations include Spinosad, pyrethrins, Surround and Malathion.

It is important to read the label carefully since each of these types of insecticides requires a different number of days to wait before you harvest any fruit. This period after spraying is referred to as the pre-harvest interval (PHI). Since the best control of SWD is to spray at the beginning of color in the fruit when the fruit is full-sized, it will usually take about 10 days for the berries and cherries to ripen from the time you sprayed.

At this point, test the fruit for ripeness. When the crop is ready, pick the fruit as quickly as they ripen. This will keep you ahead of the SWD damage. Don't let ripe or over ripe fruit hang on the bushes or trees, this will allow the SWD to multiply.

The second pest with pears and apples you mentioned is called the Brown Marmorated Stink Bug (BMSB). This pest is not as heavily established in Douglas County as the SWD. However, it is in the Willamette Valley, and it is just a matter of time before it is here in troublesome numbers.

The crops that the BMSB feed on is far greater than the SWD and includes nearly all fruits and vegetables. This pest is also very difficult to control with pesticides. This insect has a very hard outer layer that is hard to penetrate with sprays. At this time, no effective spray recommendation exists for the BMSB control by homeowners. Agricultural scientists are working on biological controls for both the BMSB and the SWD, but they are still a few years away from having a significant impact.

The BMSB is also a problem for homeowners in the fall as they love to congregate in attics, garages, and barns. The best way to keep them out of your home and buildings is to have good seals around doors and windows and screens over vents leading to attics and crawl spaces. If you discover this pest in your attic, you may need to vacuum them out and improve seals. Remember, these are stink bugs, so they will give off a strong, cilantro-like scent when disturbed.

OSU Extension has a helpful publication on Spotted Wing Drosophila, EM9026 called "Protecting Garden Fruits from Spotted Wing Drosophila." You should also refer to publication EM9054 Brown Marmorated Stink Bug to familiarize yourself with this pest and some other insects that look similar. You can access these publications online at our Oregon State University publications site.

I will be giving a class on these pests at the "Spring Into Gardening Seminar" at UCC on Saturday, Feb. 25. We will be offering eight gardening classes and four food processing classes from 8:30 a.m. until 4 p.m. To get the full agenda and register for classes, either contact the Extension office or go online to http://extension.oregonstate.edu/douglas/, and then see hot topics—Spring Into Gardening.

PHOTO COURTESY OF CHRIS MAIER

An apple damaged by the Brown Marmorated Stink Bug (BMSB).