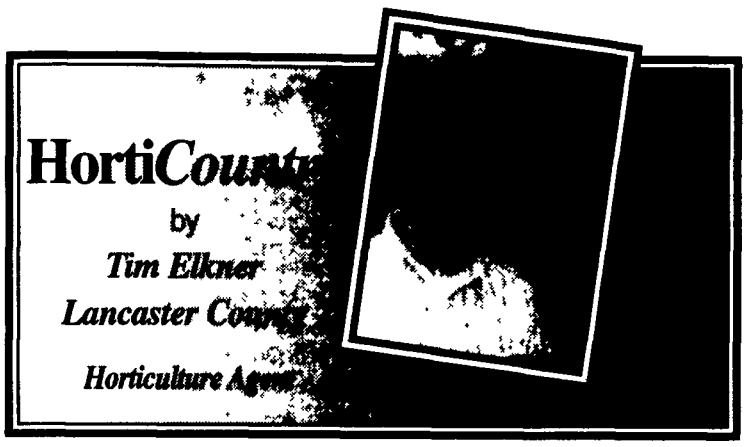

FALL TOPICS

As the summer growing season turns into fall, many growers are completing harvest of their fall crops and beginning preparations for winter. I know that the growing season must be coming to a close since I've begun making preparations for the winter grower meetings.

This month I'll cover a few topics related to the season and provide an update on plum pox.

Blotchy Ripening In Tomatoes

I have a planting of tomatoes at the research farm that I am still harvesting and I have noticed a large amount of irregular ripening in the fruit. .

Symptoms include poor color development on large areas of the fruit or irregular coloring on smaller areas. This disorder appeared back when we had the first wave of cold weather earlier this month.

Tomatoes are known to ripen poorly if the temperature falls below 60 degrees. I'm sure many growers are observing the same conditions in their late tomatoes. This disorder is known as blotchy ripening or gray wall.

As I mentioned, the first symptoms of this disorder are blotchy, brownish-gray areas on ripening fruit. These areas never color properly and may remain grayish or turn yellow. The rest of the fruit colors normally, resulting in an unmarketable fruit. If you cut an affected fruit open, there may be some browning in the vascular tissue just inside the skin.

What causes this disorder? While we do not fully understand what causes gray wall, we do know that certain conditions seem to increase its development. High nitrogen, low potassium, high soil moisture, high humidity, rapid plant growth, temperature fluctuations, low light levels, low temperatures, and soil compaction are all related to the occurrence of this disorder. In addition, there may be some involvement of certain bacteria or fungi as well as tobacco mosaic virus.

Of this list the only factors that we can control at this point in the season are the levels of nitrogen and potassium as well as soil compaction. If you have a history of problems with this disorder, be sure to know the nutritional status of your plants prior to the occurrence of cool weather next fall. You should also assess your fields for compacted soils and correct any problem areas you find.

In addition, there seems to be varietal differences in the occurrence of this disorder. When planting your late tomato crop next season, try to include a few plants of other varieties to see if there is a different variety that may be better suited for fall production on your farm.

When Should I Stop Spraying?

I have received this question in the office in the past and thought I would mention it here.

Basically the answer depends on your harvest plans. If you are growing pumpkins, you can stop spraying about one to two weeks before you plan to harvest. If you will be letting the fruit lay in the field longer, it should still be protected from black rot and the handles still need to be protected from powdery mildew as long as they are green. If you do pick-your-own, be sure to observe the necessary PHI.

As for other crops, you are still also mainly interested in protecting the fruit. If you have done a good job of spraying up to this point, then you should have enough foliage to finish maturing the crop. What disease are you most concerned with? If it only affects foliage then you can probably stop spraying, especially if you expect to complete harvest within two weeks. However, diseases that affect fruit can destroy the remainder of your crop and you should seriously consider another fungicide application if the crop has a reasonable chance of maturing.

Know Your Fruit Problem Pests

Greg Krawczyk, tree fruit entomologist at the Biglerville fruit lab, notes that the fruit from your orchards at harvest time represent a cumulative record of insect and disease activity for the season. This record can provide valuable insight into how well an integrated pest management program is working and what changes in the program need to be made in the following year.

A sample of fruit from each orchard block should be inspected, insect and disease damage identified, and a written record made. The written record should be referred to next year when making decisions about insect and disease control.

Plum Pox Update

As you know, the Pennsylvania Department of Agriculture (PDA) has been conducting an extensive survey of Pennsylvania stone fruit orchards this season to determine how far the plum pox virus (PPV) may have spread. Within the known infected areas, a door-to-door survey is being conducted to identify backyard stone fruit trees that may require testing. In addition, weed species are being tested in the quarantine area for the presence of PPV. Quarantine areas include Latimore, Huntington, Dickinson, and South Middletown townships in Adams County and portions of Menallen and Tyrone townships in Cumberland County.

Sampling of Lancaster county orchards was completed this summer and, as of this date, I have heard of no positive results in our county. Sampling in the county will probably be conducted next season and for several additional seasons until authorities are reasonably certain that the virus has not spread beyond the known quarantined areas.

So far this year, 38,434 field samples have been processed by the PDA lab, of which 398 have tested positive. This number has remained the same since July. The positive samples were detected early on from 39 blocks belonging to nine different growers in Adams and Cumberland counties. In addition, about 294 homeowner and fruit tree nursery samples were processed by the PDA Virology Laboratory in Harrisburg. All of these samples were negative.

The Fruit Research and Extension Center in Biglerville has been sampling backyard home orchards and weed species within the quarantine area, but so far all are negative.

Controlling PPV

There have been no new developments in terms of controlling this disease. The only way to control the virus at this time is to eliminate the infected trees by burning and to keep the aphids that spread the disease under control by chemical applications.

New information from France indicates that aphids (under laboratory conditions) can spread PPV from infected fruit to healthy trees. Growers and fruit handlers are being urged not to dispose of imported stone fruit that could expose infected fruit to aphids. Burning or burying fruit imported from PPV areas (Europe, Chile) will keep the virus spreading into new areas.

PPV In Canada

Early this year, three nectarine trees tested positive for PPV in Canada. This outbreak of PPV in Canada did not originate from these three Fantasia trees that were imported from Pennsylvania in 1997.

There is evidence that PPV was in Canada as early as 1992. It is possible that the Fantasia trees may have been infected in Canada.

The original source of PPV in Canada is still not known. Currently, stone fruit trees with the plum pox virus have been located in all major peach and nectarine production areas of the Niagara peninsula. In addition, positive trees have been identified in southwestern Ontario.

There are now more than 300 positive samples involving many growers. To date, a total of 120 acres of stone fruits have been removed in Canada.

The Canadian government and scientists are working hard to continue the surveying and identification of infected trees in order to determine the extent of the disease.