

Northern Michigan FruitNet 2013

Northwest Michigan Horticultural Research Center

Special Update

August 21, 2013

FIRING OBSERVED IN TART CHERRY

If mites are a contributing factor to firing, growers may need to apply a miticide application to protect overwintering health of trees

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With this season's hot and dry conditions here in northwest Michigan, we have observed firing in tart cherry. Firing looks similar to fireblight in apple where a branch or multiple branches on a tree appear dead and all or the majority of leaves on that branch is completely brown and dried up. Branches will die as a result of this firing. Firing can occur with or without the presence of mites, but in most cases, the mite and weather combination cause this problem. In most hot and dry years, two spotted spider mites (TSSM) and dry conditions cause firing, but last season, we saw high plum nursery mite populations that resulted in firing. Many growers assume plum nursery mites are the primary cause of firing, but data have shown that firing is more often associated with TSSM rather than plum nursery mites. But again, firing can be the result of hot and dry weather alone. Poor weed control may be contributing to firing with particularly water-stressed trees this season.

To determine if a miticide is warranted in trees this late in the season, growers should establish if mites are indeed present on the leaves of the tree. Plum nursery mite is a rust mite. These mites are extremely small and live on the upper and lower leaf surfaces and feed primarily on new growth. Growers should use a high powered hand lens (30x) and look for the tiny wormlike mites with two pairs of legs along the leaf midribs. If growers observe the mites, particularly in trees with firing, a miticide is likely needed to protect the overwintering health of the trees as it is at risk from mite injury.

Two spotted spider mites (TSSM) are much easier to see on a leaf than plum nursery mites, and if the populations are high enough, these mites can be seen with the naked eye. These mites are bigger, whitish in color with two black spots on the back. The nymphs are much smaller than adult mites, and all instars are often found feeding together on the underside of leaves. Webbing is also evident on leaves with a high population of TSSM. TSSM turn orange in the fall and move down the tree and make a web at the base of the trunk. However, at this time, most TSSM are still feeding on the leaves and will begin to turn color and move down the tree in the coming weeks.

Once a grower determines if either mite species is present on trees with firing, now is a good time to apply a miticide application. Plum nursery mites will continue to feed and reproduce and TSSM will still be feeding up in the canopy into September. Vendex and Nexter are registered for plum nursery mites (rust mites) in cherry. Many miticides are labeled for two spotted spider mite control: Portal (newly labeled), Apollo, Envidor, Savey, Acramite, and Zeal. Omite-CR and Vendex are also labeled and rated good against TSSM.

Miticide applications are not inexpensive, and a spray for mites is somewhat unusual this late in the season. The most important factor is to determine if mites are indeed present on the leaves-- if firing is apparent but no mites are visible on the leaves, miticides will not improve tree health as we move into winter. However, if mite populations are extremely high and this hot and dry weather continues, more firing and branch death can result in weakened trees and orchards.

MICHIGAN SPOTTED WING DROSOPHILA REPORT FOR August 20, 2013

SWD captures continue to rise as harvest winds down in some blueberry and raspberry sites

Captures of SWD in our statewide monitoring trap network have increased with the warmer weather this week. The proportion of traps catching this pest increased from 52 to 72% and the average number of SWD per trap also increased, from 24 to 45. This experience matches previous seasons where we have observed a sharp population increase as the days have started to get shorter and temperatures have become more moderate, although that has happened earlier this year than last.

The pattern across the state is of a greater increase in captures in the SW part of the state than other regions. Average weekly catches are generally lower than 5 per trap in the northern region of the state, although there is some increase there in plantings of caneberries. West central region has some higher captures too, in cherry orchards and near a packing shed. But as we have seen in recent weeks, the catches are highest in Berrien, Van Buren, Allegan, and Ottawa counties. This is also a region where we have larger numbers of traps, and some of the crop fields in this region have completed harvest so the trap captures are climbing. Farms still being harvested and managed for this pest have much lower counts and have not seen such large spikes in the fly captures.

Sampling of fruit at some of the monitored sites that have not been managed this season continues to detect some drosophila larvae in the salt test samples, with unsprayed raspberry

and blueberry samples containing large numbers of larvae. Commercial farms have either no infestation or low levels, and management programs are generally succeeding in keeping the fruit free of infestations. Growers will need to have tight spray intervals and make sure they are achieving excellent coverage to continue controlling SWD in the weeks to come.

For more information on SWD and to read past reports, visit MSU's Spotted Wing Drosophila website http://www.ipm.msu.edu/invasive_species/spotted_wing_drosophila.

For growers of later blueberry varieties, blackberries, or fall red raspberries it is essential that crop protection measures be taken if the fruit is still ripening and will be harvested later in August or September. Given the dense canopies, excellent coverage is essential for good control of SWD. For guidance on which treatments are effective, please refer to the management guides posted online at the SWD website mentioned above.

The weekly SWD scouting report has been funded through Project GREEN and Michigan State University Extension. This output is generated through a scouting and reporting network of MSU Extension field staff and campus specialists. We would like to acknowledge the following team members and thank them for their weekly scouting efforts and input into this report: Rufus Isaacs, Keith Mason, Steve VanTimmeren, Larry Gut, Peter McGhee, Michael Haas, Bob Tritten, Mark Longstroth, Diane Brown, Carlos Garcia, Karen Powers and Nikki Rothwell.

