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Northern Michigan FruitNet 2008 Weekly Update NW Michigan Horticultural Research Station

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GROWING DEGREE DAY ACCUMULATIONS AS OF APRIL 28 AT THE NWMHRS

Year	2008	2007	2006	2005	2004	2003	18yr. Avg.
GDD42	223	225	284	265	183	186	195.7
GDD50	107	86	124	115	66	77	81.5

Growth Stages at NWMHRS (4/28/08—8:00am)

Apple: Tight Cluster

Pear: Bartlett: Green Cluster

Sweet Cherry: Hedelfingen: Early white bud

Napoleon: Early white bud

Gold: Late bud burst

Tart Cherry: Bud Burst

Apricot: First Bloom

Plum: Early Green Cluster

Grapes: Early Bud Swell

Weather Report

Last week's weather was extremely warm for April, and most days were in the low to mid 70's. Temperatures dropped over the past weekend, and recent nighttime temperatures have hovered around the freezing point with the cold night temp predictions, growers are concerned about potential bud damage. Recent weather events have come hand in hand with windy conditions. Growing degree days (GDD) accumulated up to this point are similar to 2007, but overall, we have collected more GDD this season than our 18-year average. We also received considerable rainfall on April 25: over 1 ½ inches.

Crop Report

Tree development has moved along quickly with the past week's warm temperatures. On April 14, cherry trees were still in the dormant stage, and ten days later, trees were at the bud burst stage. Apricots are in early bloom here at the station, and we see a bit of white on sweet cherry buds in early varieties or in warm sites. Growers are finishing up pruning, and there is lots of planting currently underway. Conditions for planting have been good with last Friday's significant rainfall. Honey bee hives have been placed into many cherry orchards in the region.

Pest Report

Things are still pretty quiet in the NW region. **Spotted tentiform leafminer** are showing up in traps here at the station. We are also seeing a few **obliquebanded leafroller** larvae in apples. With the heavy rain over the weekend, we saw moderate to heavy apple scab infections predicted.

We are receiving additional reports of **San Jose scale** in sweet cherries, an emerging problem in our region. The weather has also made **bacterial canker** a concern, especially on sweet cherry. If we have the drop in temperature predicted, it may predispose tissue to bacterial infection.

APPLE SCAB INFECTION OVER THE WEEKEND

Erin Lizotte, IFP/IPM Educator

With the cool wet temperatures of this past weekend, a moderate to heavy scab infection was predicted. Windy conditions leading up to the weekend made it difficult to get fungicide on ahead of the primary scab infection; the most effective time to target scab. Despite challenging spray weather, it is important that trees do not remain untreated.

The application of an EBDC and strobilurin fungicide, such as Flint, is recommended for controlling apple scab early in the season. EBDC fungicides such as Dithane, Manzate, Polyram or Penncozeb can be applied on a prebloom or extended application schedule. The prebloom schedule begins EBDC application at green tip (6lb/acre) and treatments are applied every 5-7 days through bloom. The extended schedule reduces the rate of EBDC (3lb/acre) and recommends tank mixing with a fungicide from a different chemical group, such as a strobilurin. Applications begin at green tip and continue on a 7-10 day schedule through second cover, but note that only a total of 4 strobilurin fungicide applications may be made annually.

Consult the spray guide for additional rotational partners to manage against fungicide resistance development. No single fungicide or class of fungicide can be used exclusively because of regulatory restrictions, efficacy variation, compatibility issues, and resistance concerns. At least 2-3 classes of fungicides should be used in an apple scab management program, with no more than 2-3 consecutive application of fungicides in

the same class.

BACTERIAL CANKER AND COLD SPRING TEMPERATURES

Nikki Rothwell, District Horticulturist
Erin Lizotte, IFP/IPM Educator
George Sundin, Plant Pathology, MSU

Bacterial canker is caused by the bacterium *Pseudomonas syringae*, and this pathogen can infect sweet and tart cherry and plums throughout Michigan. This disease is most problematic in sweet cherries, and epidemics often occur in conjunction with cold, frost-prone weather in the spring. Freezing temperatures can also dispose cherry tissues to bacterial canker infection, especially if the freeze event is followed by wet weather. Therefore, growers should be particularly diligent about early bacterial canker control in the coming weeks after these cold spring temperatures.

Early copper sprays are the most common methods of control for bacterial canker on cherry. However, sweet cherry tissues are extremely sensitive to copper, and the sprays must be adequately timed to reduce *P. syringae* inoculum without causing phytotoxicity. If the trees are still in the dormant stage, two copper applications can be applied at 1-2 week intervals at a rate 1.2-2 lbs of metallic copper with either one pint of spray oil per 100 gallons of water or 6-9 lbs of hydrated lime per acre. Copper products sprayed during the dormant stage should have good retention properties to enhance disease control as longer residuals for copper should translate into an extended period of bacterial disease suppression after the spray is applied (Rosenberger, 2007). If the trees have broken dormancy and are in the pre-bloom stage (bud swell through white bud), copper rates should be reduced to 25-35% of the dormant rate. Up to two copper applications with a one week interval should be used at this time. In tart cherries, copper compounds can be used at the 1.2-2 lb actual copper rate at bud burst with weekly repeated applications until late May. Some of these later sprays may result in some leaf yellowing, bronzing, and potentially defoliation. Adding hydrated lime at 6-9 lbs/acre will reduce the phytotoxic effects of copper..

Literature cited:

Rosenberger, D. 2007. Early season copper sprays. Scaffolds Fruit Journal. April 9. 16:4.

Insect and disease predictive information is available at:

<http://www.enviroweather.msu.edu/home.asp>

This issue and past issues of the weekly FruitNet report are posted on our website at:

<http://www.maes.msu.edu/nwmihort/faxnet.htm>

[ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE MARCH 1, 2008](#)

Please send any comments or suggestions regarding this site to:

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