



Northern Michigan FRUITNET 2001

Weekly Update

James E. Nugent Gary E. Thornton William M. Klein
 NW Michigan Horticultural Research Station
 Michigan State University

July 3, 2001

WEATHER

The weather has definitely broken out of the cool, rainy pattern we experienced for much of the month of May and the first 20 days of June. Evaporation rates the past three weeks have been approximately 1.7", 1.7" and 1.9" respectively. With very little rainfall since June 20 and fairly high evaporation rates, water may need to be provided to young trees.

GROWING DEGREE DAY ACCUMULATIONS as of July 3, 2001 at the NWMHRS:

Year	2001	2000	1999	1998	1997
GDD42	1440	1456	1590	1633	1203
GDD50	858	823	968	989	717

GROWTH STAGES:

- Plum (European) – 23 mm
- Pear: Bartlett – 25 mm
- Apple: Red Delicious – 37mm
- Sweet Cherry: Napoleon – 20 mm
- Tart Cherry: Montmorency – 12.5mm
- Grapes: Chardonnay – Buckshot berries

COMMODITY REPORTS

By Gary Thornton

Cherry fruit fly emerged on June 19th in the Entomology plot at the station. Growers, who are not trapping for the pest, should have an insecticide spray on at this time. Be sure to abide by the pre-harvest intervals. Alternate middle row sprays of Guthion or Imidan will very effectively control this pest.

Plum curculio activity is declining and egg laying activity is at a minimum. It is difficult to say when all of the egg laying is finished – growers should error on the safe side with this pest.

Codling moth trap catches were up this week to 5.6/trap in an abandoned block. Continued flight has meant some growers have had to put on a second spray.

Cherry Insecticide/Miticide PHI's (Days)

Ambush - 3
Asana - 14
Imidan - 7
Savey - 28
Vendex - 14
Pounce - 3
Guthion - 15
Lorsban - 14
Pyramite - 300
Sevin - 3

Cherry leaf spot and **brown rot** – pressure is heavy in those blocks where infections are present – most blocks have some, a few blocks have a lot and pressure is intense. Pre-harvest fungicides should have activity on brown rot, as well as cherry leaf spot. As long as your processor allows it, sterol inhibitor fungicides should be tank mixed with Captan for resistance management.

Cherry Fungicide PHI's PHI in days

Captan	0
Nova	7
Orbit	0
Ferbam	0
Rovral	Not after petal fall
Indar	0
Rubigan	0
Elite	0
Topsin-M	1
Benlate	3
Ziram	14

MISCELLANEOUS

CIAB Diversions

Jim Bardenhagen

When growers call the CIAB Compliance Team to come out to mark or sample trees for a partial or whole block diversion, it's the grower's responsibility to provide the blue sheet called *Orchard Summary Sheet For 2001* that was sent to them by the CIAB earlier this year. This tells the CIAB Compliance Team that your orchard maps and diversion application are current.

According to the CIAB, the grower is also responsible for providing the detailed orchard maps for each block showing the number of tree spaces per row in each block. This is the sheet that the CIAB sends out after an update on an existing block or information on a new block is sent in on the original mapping forms that are due by April 15th of each year.

The current orchard map might be one that was sent in several years ago if no changes were made since then.

If growers cannot find their blue sheet and current orchard maps, they will need to call the CIAB (1-888-639-2422) and obtain a replacement copy prior to the CIAB Compliance Team's arrival.

The CIAB seeks your cooperation with this in order to avoid costly delays for the grower and the CIAB Compliance Team.

Due to the large crop, the CIAB is expecting to service lots of diversion requests this year and needs to process them quickly in order to serve all the growers with their limited CIAB compliance staff.

Wind Damage in Tart Cherries

Jim Nugent, Gary Thornton, Jim Bardenhagen

Western Michigan received some strong winds over the weekend. Initial tart cherry crop damage reports in NW Michigan indicate a range in damage from no significant damage in the later maturing areas to some serious wind injury on exposed sites in the earlier maturing areas. This is very preliminary at this time. We have also received information from SW Michigan indicating wind damage that is quite variable in that area. Harvest in SW Michigan is currently in progress. Grades are reported to have dropped on Monday. In west central Michigan harvest has not yet begun, with limited early reports indicating some wind damage in that area as well.

[ACTUAL AND PREDICTED DEGREE-DAY ACCUMULATIONS SINCE March 1, 2001 \(*\)](#)

Please send any comments or suggestions regarding this site to:

Bill Klein, kleinw@pilot.msu.edu

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Northern Michigan FRUITNET 2001

Weekly Update

James E. Nugent Gary E. Thornton William M. Klein
 NW Michigan Horticultural Research Station
 Michigan State University

July 10, 2001

WEATHER

Dry! Evaporation rates have been quite high for the past 4 weeks, ranging from 1.7 to 2.0"/week. Rainfall totals for the season are exceptionally high, but not for the past 3 to 4 weeks! At the NWMHRS, rainfall the past three weeks has been just 0.08". Young trees, particularly on sandy soils, need water as soon as possible.

GROWING DEGREE DAY ACCUMULATIONS as of July 9, 2001 at the NWMHRS:

Year	2001	2000	1999	1998	1997
GDD42	1612	1639	1801	1810	1324
GDD50	974	950	1123	1110	784

GROWTH STAGES:

Plum (European) – 25 mm
 Pear: Bartlett – 35 mm
 Apple: Red Delicious – mm
 Sweet Cherry: Napoleon – 21 mm
 Tart Cherry: Montmorency – 17.5mm
 Grapes: Chardonnay – Buckshot berries

COMMODITY REPORTS

By Gary Thornton

Codling moth has continued to trickle into apples. An abandoned block near Suttons Bay averaged 5.3 moths per trap. Reports of as many as 50 moths per trap have occurred in the last week. Continued controls may be needed in high pressure blocks. **Apple maggot** has not yet been trapped in the region. **Potato leaf hoppers** are a problem in some young apple blocks and can be a problem in strawberries and grapes. **Fireblight** shoot blight is common in some apple blocks. Strong winds in the last few weeks injured leaves, which allowed infections to take place. Growers should try to keep young blocks free of blight by removing fireblight strikes.

Cherry fruit fly numbers spiked up briefly after the last light rains on July 3rd and 4th. Overall the catches in commercial orchards have been low. The moderate drought we are experiencing will keep the cherry fruit fly numbers low. Growers should expect a flush of adults when the next rain occurs. **Powdery**

mildew continues to spread in most orchards. This disease is worse in dry years. The last wave of yellow leaves from **cherry leaf spot** has passed through tart cherry orchards. This should be the last major wave for some time. **Two spotted spider mites** are now moving into tart cherries. For most blocks, at this point, controls will have to be applied after harvest.

MISCELLANEOUS

Tart Cherries and Ethephon

By Jim Nugent, District Horticulturist, MSUE

There is an exceptional amount of variability in maturity in tart cherries this season. This is most common in heavily loaded trees with low leaf to fruit ratios. This makes timing of ethephon difficult. Keep in mind that if ethephon is applied when green fruit is still present in the interior of the tree, this fruit will likely drop at harvest with stems attached as an immature cherry. The heavy crop, with its low leaf to fruit ratio, will likely result in some quality challenges, including color and soft fruit. So, it's apt to be a challenge as we wait for color yet hope to avoid excessive soft fruit, particularly late in the season. Good luck!!

Irrigation

By Jim Nugent

One commonly used rule of thumb to estimate orchard irrigation needs is to replace 75% of the rate of evaporation from a pan of water through a combination of irrigation and rainfall. However, we know that the more dwarfing apple rootstocks should receive more like 100% evaporation, with Mark rootstock at about 150%. Experience the last couple of years is indicating to me that we will likely also want to increase irrigation rates on dwarf cherry rootstocks.

[ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE March 1, 2001 \(*\)](#)

Please send any comments or suggestions regarding this site to:

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Northern Michigan FRUITNET 2001

Weekly Update

James E. Nugent Gary E. Thornton William M. Klein
 NW Michigan Horticultural Research Station
 Michigan State University

July 24, 2001

Weather

Spotty rains occurred on 7/20-22, but drought conditions remain the norm in NW Michigan. Leaf yellowing and drop is common in areas of sandy soils. Evaporation for each of the last 2 weeks was 2.12" and 1.26" respectively. Rainfall at the NWMHRS during the same 2 week period was 0.0 and 0.05 respectively. Since the rains 5 weeks ago, evaporation has totaled about 9" while the NWMHRS has received only 0.13". This is an average evaporation rate of 0.26"/day. If irrigation is available, it should be supplying roughly 0.19"/day (75% of evaporation).

Growing Degree Day Accumulations as of July 23, 2001 at the NWMHRS

Year	2001	2000	1999	1998	1997
GDD42	2048	1977	2212	2264	1724
GDD50	1298	1176	1422	1430	1072

Commodity Reports

Apple maggot trap catches were up sharply by Monday in areas of NW Michigan that received rain late last week. **Codling moth** trap catches remain at or near zero. **Green apple aphids** and **mites** are building.

Sweet cherry harvest is nearing completion. Quality has been excellent. **Tart cherry** harvest is in progress. Fruit size is quite small due to drought and heavy crop load. West Central Michigan is picking out short due to small fruit size. **Cherry fruit fly** emergence continues. **Mite** thresholds will be much lower than in recent years due to the potential for firing when mites build up under these severe drought conditions. In grapes, **giant sphinx moth larvae** are fairly small at this time, but will be very actively feeding as they grow to their huge size. This is a particular concern that warrants monitoring and possible control in young plantings.

Miscellaneous

By Jim Nugent, District Horticulturist

Ethephon has been unusually effective this season on sweets and tarts, likely due to the influence of drought stress on the trees. The negative result of the increased activity is that more than normal injury and leaf drop have also occurred with ethephon use.

Drought conditions remain very severe in many areas. Hardest hit are newly planted orchards in sandy soils. There is also collapse of young bearing trees in sandy areas. Many sweet cherry trees have exhibited yellowing and drop of older leaves due to drought. This is also occurring in some tart blocks. This year sweet cherries on Gisela rootstocks clearly showed the need for more water than conventional rootstocks. If contemplating planting trees on Gisela rootstocks, I strongly encourage irrigation if soils are sandy.

CIAB Weekly Raw Product Report

If you are interested in the CIAB weekly raw product report, it can be accessed at the following address:

<http://www.cherryboard.org/prodrept.html>

[ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE March 1, 2001 \(*\)](#)

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Northern Michigan FRUITNET 2001

Weekly Update

James E. Nugent Gary E. Thornton William M. Klein
 NW Michigan Horticultural Research Station
 Michigan State University

July 31, 2001

WEATHER

Drought stress is severe in many locations. Evaporation the past week totaled 1.62" or 0.23" per day. Evaporation for the past 6 weeks has totaled 10.6", for an average of just over 0.25" per day. At the NWMHRS, the total rainfall during that 6 weeks period does not equal the average evaporation for one day! The July evaporation rate of 7.63" is only 0.34" above normal based on our 20 year average. The real story is lack of rain. At the NWMHRS, July's rainfall total of 0.23" is 2.49" below normal and represents the driest July during the past 20 years (far surpassing the previous low of 1.00" in 1998). That is the lowest monthly rainfall for any month (April-Oct.) during the past 20 years.

Growing Degree Day Accumulations as of July 30, 2001 at the NWMHRS

Year	2001	2000	1999	1998	1997
GDD42	2279	2217	2476	2483	1948
GDD50	1465	1352	1622	1599	1231

PESTS

Apples - **Apple maggot** is being trapped in some commercial blocks; particularly near wild hosts and/or early maturing varieties. Codling moth trap catches remain very low.

Cherry – **Cherry fruit fly** continues to be trapped. **American plum borer** and **lesserpeach tree borer** trap catches are up from last week.

All Tree Fruits and Grapes – Check orchards and vineyards for buildup of **mite** populations (both plant feeding spider mites and/or eriophyid mites, plus predacious mites).

MISCELLANEOUS

2001 Summer Peach Variety Showcase in Grand Rapids

Where: Windy Ridge Orchard, Chuck and Robin Rasch, 452 Harding Rd, Conklin, MI, northwest of Grand Rapids. Harding is first road north of 10 Mile Rd; the farm is east of 8th Ave.; 8th is west of M-37 (map available from NW Station)

When: Thursday, August 16, 2001 – 7:00 p.m. to 8:30 p.m.

Details: See many of the new Stellar and Flaming Fury peach varieties at the Rasch farm and fruit variety display from the SW Michigan Research and Extension Center. Bill Shane, MSU peach extension agent, will lead discussion on peach varieties and other peach issues. You are welcome to bring samples from your own farm to add to the display. Contact MSU fruit agents Amy Irish Brown 800-767-1345 or Bill Shane 616-944-1477 x 205 for more details.

Sponsored by the Michigan Peach Sponsors, Grand Rapids Pomesters, and Michigan State University Extension.

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