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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

June 5, 2001

WEATHER

Cold, wet weather continued this week. At the NWMHRS precipitation was recorded on five of the past seven days, totaling 1.46". We have measured precipitation on 21 days since May 1.

GROWING DEGREE DAY ACCUMULATIONS as of June 4, 2001 at the NWMHRS:

Year	2001	2000	1999	1998	1997
GDD42	728	791	848	943	460
GDD50	366	381	446	516	195

GROWTH STAGES:

Plum (European) – 9mm

Pear: Bartlett - 11mm

Apple: Red Delicious – 11mm

Sweet Cherry: Napoleon – 12mm

Tart Cherry: Montmorency – 10.5mm

Grapes: Chardonnay – 10"-16" shoots

COMMODITY REPORTS

Apple growers have reported **scab** showing up in McIntosh. If growers have concerns with **secondary scab**, protectant sprays of Captan at appropriate rates will be best at keeping scab off fruit. Because of concerns about resistance, it will be beneficial to avoid the sterol inhibitors and the strobilurin fungicides when possible, in trying to clean up infections in orchards. Scab lesions will produce conidia for 5-6 weeks from the time they show up. Last Friday's rain marked the end of primary scab season for most orchards. Those orchards that had scab last year should continue to apply control for one more additional rain. With higher populations of overwintering scab inoculum there is a greater risk of late season spore release. **Fireblight** symptoms are showing up from overwintering cankers. Cold evening temperatures have greatly reduced **codling moth** activity. Codling moth trap catches were zero per trap at the NWMHRS. Most orchards have not biofixed yet, so the first targeted sprays in most orchards won't go on for at least two weeks. **Spotted tentiform leafminer** sap feeding mines are scarce so far.

Cherry leaf spot lesions are common in many orchards. Growers should take a close look at their blocks so they know the status. If leaf spot is present, back to back sprays of either Syllit or Nova would do the most to slow down the infections. **Bacterial canker** infections are showing up in sweet cherries, with symptoms in both leaves and fruit. These fruit symptoms may rapidly become infected with **brown rot**. Growers with such infections should rely in Indar, Orbit or Elite for brown rot/ leaf spot control. Ferbam and sulfur is sufficient elsewhere. **Borer** trunk sprays should go on now. **Plum curculio** activity has been light. Sweet cherries should continue to be protected with an insecticide from now until

harvest. Tart cherries are currently at 200 degree days after full bloom at the NWMHRS. Tarts will need a preventative insecticide spray at 375 degree days to insure clean fruit at harvest. Gibberellic acid should be applied to tart cherries where desired as soon as seasonable temperatures (highs in '70's) occur.

Grape growers are seeing low levels of **potato leaf hoppers** in local vineyards. Wild grapes are approximately a week to 10 days away from bloom, depending on temperatures. Grape growers looking to control **black rot**, **downy mildew**, **powdery mildew** and **phomopsis** should be applying appropriate fungicides now. This fungicide spray and the one at bloom are the two most important for the season.

MISCELLANEOUS:

Still More on Apple Thinning

By Jim Nugent

Cold temperatures have not been favorable for application of thinners, though cold, cloudy weather will favor natural thinning. Fortunately, apple development was quite slow this past week, leaving most varieties/blocks with fruit still small enough to wait a few more days for warmer temperatures before thinning. If temperatures remain cool when king fruit size is nearing 18-20 mm, it will probably mean using an aggressive thinning combination, such as NAA and Sevin or Accel and Sevin (depending on variety and situation), and applying even with cool weather. NAA applied to Red Delicious late in the thinning window may result in significant "pigmy fruit" development. However, in most instances it appears that fruit size is still small enough to delay fruit thinning until late this week when high temperatures are more likely to increase into the 70's. As fruit gets beyond 12-14 mm it gets more difficult to thin, so consider more aggressive combinations, rather than single materials in blocks where fruit set appears heavy and no prior thinning was applied.

[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

June 12, 2001

WEATHER

Rainfall has exceeded evaporation by 0.37" so far this month, while the year to date evaporation has exceeded rainfall by only 1.84", at the NWMHRS.

GROWING DEGREE DAY ACCUMULATIONS as of June 11, 2001 at the NWMHRS:

Year	2001	2000	1999	1998	1997
GDD42	868	961	1070	1042	631
GDD50	453	496	611	566	310

GROWTH STAGES:

- Plum (European) – 14mm
- Pear: Bartlett – 15mm
- Apple: Red Delicious – 18mm
- Sweet Cherry: Napoleon – 13mm
- Tart Cherry: Montmorency – 11mm
- Grapes: Chardonnay – 10"--16" shoots

COMMODITY REPORTS

The **apple scab** primary season is over for the NWMHRS. In cooler districts apple growers should count any infection periods this week as significant, particularly if they had scab last year. Growers who were not able to control scab completely during the primary season should be using 6 lbs. Captan on a regular basis to limit its spread. Growers should be weary of overusing the new Flint and Sovran materials to clean up an infection, although they do an adequate job, they can develop resistance quickly. Applying these to an outbreak of scab will reduce the number of times they will adequately work on a given block. **Plum curculio** stings can be found in unsprayed blocks. **Codling moth** trap catches were 3.6 per trap in an abandoned orchard near the NWMHRS. Orchards that biofixed last week will need to be receiving an insecticide spray as early as next week, when they reach 250 DD after biofix. Many orchards have not yet biofixed, but likely will do so this week with the heat. **Leaf rollers** are a problem in some blocks.

Pear scab is showing up in unsprayed pears. **Pear psylla** are in the fourth instar, and second generation adults are starting to fly. Growers relying on Provado or Pyramite should time their next spray (if needed) for egg hatch of this next generation – that will likely start to happen next week.

Cherry leaf spot is showing up in most tart cherry and in some sweet cherry orchards. Generally it is on the oldest two or three leaves. The infections that will result from the heavy infection period that started on May 31st will likely be showing up sometime this week. Growers using any of the SI's for leaf spot control should continue to use 3 lbs. of Captan tank mixed with it. (Check with your processor to be sure they will allow Captan). **Brown rot** has been reported coming into fruit infected with bacterial canker. **Bacterial canker** leaf and fruit symptoms are common, particularly in orchards that were hit by hail. **Plum curculio** remains active and will likely continue to lay eggs for an extended time this season, due to the cooler period earlier this season. The NWMHRS will be at 375 DD base 50 mark late this week. At this point growers will need to have an insecticide on tart cherries to insure clean fruit at harvest. Growers who will be trapping for **CFF** should get their traps out.

Rose chafer has emerged in some NW Michigan orchards and vineyards. Growers should check grapes and young plantings in particular.

Grape growers are entering the most critical time for disease control for the season. Wild grapes are in bloom, so we should be seeing vinifera blooming in the next week across NW Michigan. The immediate prebloom spray is very important for controlling all of the major diseases. The most important two sprays for controlling **Phomopsis**, **powdery mildew**, **downy mildew** and **black rot** should be applied at prebloom and then again 10 days to 2 weeks later.

MISCELLANEOUS

The USDA Crop Estimate will be announced on June 21st. The CIAB will also meet that day. A series of meetings will be held to update growers on the FMO. These are as follows:

Friday, June 22, 3 – 5 p.m. SW MI Research & Extension Center, Benton Harbor

Monday, June 25, 9-11 a.m. Peninsula Twp. Hall, Traverse City

Monday, June 25, 1-3 p.m. Milton Twp. Hall, Kewadin

Monday, June 25, 7-9 p.m. NW MI Horticultural Research Station

Tuesday, June 26, 9-11 a.m. Sail Inn, Benzonia

Tuesday, June 26, 3-5 p.m. Oceana I.S.D., Hart, MI

Reminder – IPM Update Sessions

Leelanau County: Wednesdays, 1:00 p.m. at the Larry and Jan Esch Farm, 6764 Horn Rd., Lake Leelanau, with Gary Thornton, Chris Garthe and Jim Bardenhagen.

Old Mission: Every other Tuesday: June 19; July 3, 17, 31; August 14 at the Josh Wunsch Farm, Phelps Rd., with Gary Thornton and Duke Elsner.

[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

June 19, 2001

WEATHER

Evaporation has exceeded rainfall by 0.44" so far this month, while the year to date evaporation has exceeded rainfall by 2.65" at the NWMHRS.

GROWING DEGREE DAY ACCUMULATIONS as of June 18, 2001 at the NWMHRS:

Year	2001	2000	1999	1998	1997
GDD42	1076	1110	1193	1244	771
GDD50	604	589	683	704	397

GROWTH STAGES:

Plum (European) – 17mm
 Pear: Bartlett – 16mm
 Apple: Red Delicious – 23mm
 Sweet Cherry: Napoleon – 15mm
 Tart Cherry: Montmorency – 11.5mm
 Grapes: Chardonnay – 10"--16" shoots

COMMODITY REPORTS

Many apple growers continue to find **apple scab** in their orchards, most often on McIntosh. Protectant sprays will be needed to keep the fruit clean. **Fireblight** shoot strikes are showing up in a few orchards. Recent winds will very likely spread fireblight inoculum in blocks with higher pressure. This early in the season it pays to cut out the infections.

Codling moth trap catches in apples rose last week. Growers who are not trapping should apply an insecticide as soon as possible. **Spotted tentiform leafminer** is between generations. **Rosy apple aphids** are tightly curled in leaves and are therefore difficult to control. **Green apple aphids** are slow to build populations so far. **European red mite** activity is just beginning to pick up. **Plum curculio** remains active in apples, cherries, plums, apricots and peaches.

Tart cherry orchards with the similar degree days to the NWMHRS should have received an insecticide as of last Thursday to avoid plum curculio in fruit at harvest. The first **Eastern cherry fruit fly** was caught yesterday, June 19th at the NWMHRS. Growers who are not trapping will need to control for CFF in

seven to ten days, which is when egg laying activity will start. **Greater peach tree borer** adults are beginning to fly. **Cherry leaf spot** (CLS) is severe in some blocks, with defoliation already starting. Orchards with higher levels of CLS inoculum should be maintained with tight spray schedules and rotated chemistries. When sterol inhibitor fungicides are used, they should be combined with captan when possible. **Powdery mildew** is showing up on tart cherry leaves. In the warmer parts of the district, early varieties of sweet cherry are taking on straw color. **Brown rot** becomes a major concern in this pre-harvest period.

Bacterial spot can be found on apricots. **Tarnished plant bugs** and other stink bugs are a threat to peaches, especially after mowing.

Rose chafers are very active and can be a threat to most fruit crops. Grapes, peaches and new plantings of tree fruits are particularly susceptible to rose chafer damage. High populations of **European fruit lecanium scale** have been found on some grapes, currently in the egg stage. Pesticide applications should be timed for the crawler stage if populations are high.

MISCELLANEOUS

Reminder:

The USDA Crop Estimate will be announced on *June 21st*. The CIAB will also meet that day. A series of meetings will be held to update growers on the FMO. These are as follows:

Monday, June 25, 9-11 a.m. Peninsula Twp. Hall, Traverse City

Monday, June 25, 1-3 p.m. Milton Twp. Hall, Kewadin

Monday, June 25, 7-9 p.m. NW MI Horticultural Research Station

Tuesday, June 26, 9-11 a.m. Sail Inn, Benzonia

[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

June 26, 2001

WEATHER

Generally, moisture has been quite good this season, but newly planted or shallow rooted crops may be showing signs of drought stress. Evaporation has exceeded rainfall by 2.12" so far this month, while the year to date evaporation has exceeded rainfall by 4.33" at the NWMHRS. Evaporation x .75 has exceeded rainfall by 0.9 so far this month. The 75% of pan evaporation is of importance as it has generally been found to be an approximation of fruit tree water needs for many crops. High-density apples (M26 or smaller) are better approximated using a 100% estimation, except Mark, which needs 150% of e-pan. Dr. Jim Flore, MSU Dept of Horticulture, says that recent research is finding that replacing 100% of e-pan evaporation for other high yielding crops may be more important than formerly thought, however, this data is not for cherry. For now, we suggest that irrigation scheduling take into account crop load; i.e., with heavy crop plan to increase water.

GROWING DEGREE DAY ACCUMULATIONS as of June 25, 2001 at the NWMHRS:

Year	2001	2000	1999	1998	1997
GDD42	1242	1289	1400	1438	980
GDD50	715	712	834	850	551

GROWTH STAGES:

- Plum (European) – 21mm
- Pear: Bartlett -- 19mm
- Apple: Red Delicious – 31mm
- Sweet Cherry: Napoleon – 16mm
- Tart Cherry: Montmorency – 11.5mm
- Grapes: Chardonnay – Bloom

COMMODITY REPORTS

By Gary Thornton

Many apple orchards in the region show some **apple scab**. Continued use of Captan every

two weeks is necessary to keep the infections off the fruit, particularly in McIntosh. **Fire blight** is active in some blocks, particularly where varieties are highly susceptible. **Codling moth** trap catches were 0.5 moths per trap at the NWMHRS this week. Most growers have their first spray on for codling moth and will soon be applying the second if their trap catches had remained above threshold. **Potato leafhoppers** are on the rise. **European red mites** are building in many blocks, and some bronzing is occurring on interior leaves.

Rose chafers are feeding on unsprayed, non-bearing trees of all species. **Cherry leaf spot** has caused severe defoliation in unsprayed blocks. No infection periods for it occurred in the last week at the NWMHRS. **Powdery mildew** has been showing up on tarts in the last few weeks, but most blocks are in good shape. The rains that we have had this year actually have decreased powdery mildew pressure by washing off the spores and reducing infections. **Brown rot** pressure is increasing with hot, humid weather and ripening fruit. Sweet cherries should be protected at all times with full covers of an appropriate fungicide. **Plum curculio** pressure is low, but fresh stings have been found in unsprayed blocks. **Cherry fruit flies** emerged on June 19th at the NWMHRS. Trap catches on yellow sticky boards averaged eight per trap this week in unsprayed blocks. Growers who are not trapping need to have an insecticide on to help insure clean fruit at harvest. **Lesser peach tree borers** were 29 per trap, and **Greater peach tree borers** were 4.5 per trap at the NWMHRS. When mowing peach orchards, be sure to have an insecticide on prior to mowing. **Tarnished plant bugs** can move into the trees from the groundcover and sting fruit.

MISCELLANEOUS

ETHREL APPLICATIONS

By Jim Bardenhagen, Leelanau Co. Extension

The recent warm trend is creating real challenges in getting ethephon on the sweet cherries.

It is recommended that you avoid application when the temperatures are expected to exceed 85 degrees F. during the 72 hours after application. The temperature forecasts have been and are for near or above 90 degrees F. till Friday when they expect a cool front to move in for the weekend and next week.

The safest program would be to wait for this cool front, then use a higher rate for a shorter interval to harvest (7-10 days).

If you can't wait for the cooler weather, then use lower than the normal ethephon rates recommended in the last newsletter.

IN-ORCHARD DIVERTED CHERRIES MUST BE MARKETABLE

By Jim Bardenhagen

The CIAB has set the preliminary effective restriction at 29% for the 2001 crop. Options for utilizing this 29% are export, reserves (pools), new product/markets and in-orchard diversion.

The percent that will go to these options will vary depending on processor capabilities and plans. The cherries, which go to in-orchard diversion, must be marketable. The CIAB has determined that unmarketable means excess rot (greater than 7%) and infested with worms. If fruit can meet juice requirements (may have minimum brix requirements), it's considered marketable. Since hailed or wind whipped fruit can go into juice, they would be considered marketable.

You may be able to save some chemical applications if you know you plan to in-orchard divert a block. However, you will need to make sure you maintain crop protection to keep it marketable until the CIAB compliance team comes out to do their block/partial block sample or their on site tank diversion.

The CIAB is willing to have the compliance team come out and mark sample trees for whole and partial block diversion ahead of harvest to assist you in your plans.

Burt Stanley is the CIAB Compliance Team Field Supervisor for Northwest Michigan. Please give Burt a call (231/590-7212) if you have some questions.

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

Please send any comments or suggestions regarding this site to:

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