Northern Michigan FruitNet 2002
Weekly Update

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

August 1, 2002

GROWING DEGREE DAY ACCUMULATIONS through July 29th at the NWMHRS:

	2002	2001	2000	1999	1998	1997
Base 42	2074	2211	2154	2408	2404	1896
Base 45	1793	1893	1814	2073	2063	1614
Base 50	1382	1413	1305	1544	1412	1195

WEATHER

Rainfall continues to be spotty around NW Michigan. At the NWMHRS only 0.05" fell this week, giving a monthly total through 7/30 of only 0.90" - much better than last year, but still a very dry period. Evaporation for the past week was 1.40", the lowest weekly total since mid-June.

PESTS & DISEASES
By Gary Thornton

Codling Moth - Trap catches averaged 2.5 moths per trap at the NWMHRS and .3 moths per trap at the abandoned orchard near Suttons Bay. In many orchards we are between generations, but orchards with heavy pressure still may have high enough trap catches to warrant sprays. Second generation trap catches should already be starting based on the degree day model.

Apple Maggot - We only caught .3 per yellow board at the abandoned block this past week. Pressure was much higher last week. Adults have been caught on red balls in some orchards, which indicates that egg laying activity has started. Alternate middle row sprays of Imidan or Guthion work well for controlling this pest.

Spotted Tentiform Leafminer - Trap catches dropped off slightly this past week to 164 per trap. We are likely just beyond the peak flight for this second generation. Mines from this generation should be showing up this week in unsprayed blocks. In many years, parasitism controls this pest and that is why it is not always a major problem and difficult to predict when it will become a problem.

European Red Mites - Mites in general have been slow to build this season, at least in the second half of the season. Many apple blocks did receive miticide treatments earlier in the season, but quite a few that didn't still have the population in control. The next two weeks are critical for keeping the populations below threshold, but after mid August controls are questionable as to the economic good they do. The threshold is 15 mites per leaf at this time.

Fireblight - Growers with blocks of susceptible varieties that may have been damaged in strong winds approximately 10 days ago should be checking for shoot strikes. Cutting them out 10" below the canker will be important on young blocks.

Cherry Fruit Fly - Trap catches on yellow boards declined this week at the NWHRS, to 4.6 per trap. With Montmorency

Cherry Fruit Fly - Trap catches on yellow boards declined this week at the NWMHRS, to 1.6 per trap. With Montmorency harvest wrapped up, and for the most part little fruit left in the orchards, there should be minimal egg laying activity in most orchards. Balaton cherries that are still to be harvested, are at risk. Where cherry fruit fly adults are present (which would be most if not all sites now), growers should maintain at least an alternate middle row of coverage of an appropriate insecticide until harvest. Be sure to watch the pre-harvest intervals.

Cherry Leaf Spot - Pressure has decreased dramatically with the dry weather in the last month. Tuesday night's rain gave most of the area a light infection period for cherry leaf spot. Post harvest sprays can go on now for cherry leaf spot. Some growers question whether they are worthwhile at this point, which is a valid question. The crop was virtually non- existent, so that means higher levels of carbohydrates than most years when a crop was present. Mite pressure appears to be low in most orchards. Soil moisture isn't fantastic and remains a concern. Fruit set is likely to be high next year, and the trees may need all the extra carbohydrates they could use to ripen the crop. Perhaps the biggest question is: are there significant wetting periods in the future? Growers need to assess all these factors into their decision on whether or not to apply a post-harvest fungicide, if they haven't applied one yet? Bravo is the material of choice. Be sure to watch the seasonal limits on Bravo usage on the label: Ultrex - No more than 18.8 lbs. per season; Weather Stik - No more than 20.5 pints per season.

CIAB WEEKLY REPORT - Week Ending 7/27/02

Edited by Jim Nugent from the CIAB Raw Product Report by Perry Hedin

The pack (in millions of lbs) year to date (YTD) for Michigan is NW - 0.7; WC - 5.6; SW 7.1 for a Michigan total of 13.4 (processor estimate was 14.5 and USDA estimate was 15.0. Michigan producers are very close to being done with harvest. There will be a small amount of production this next reporting week in NW Michigan. The consensus seems to be that NW Michigan will not come close to the estimate this year.

New York reports 12.8 YTD. Expect to finish this week with 13.5 to 14. Processor estimate was 15.0 and USDA estimate was 12.0.

Washington has packed 11.2 M lb and expect to continue this week. Washington expected to come close to estimate of 17.0 (processor) to 18.0 (USDA).

Wisconsin began harvest last week with 0.7 M, with estimates of 4.0 (processor) to 4.2 (USDA). Early estimates are to finish below anticipated harvest.

Total YTD for the U.S. is 46.2 M lb, compared to estimates for 2002 of 59.1 (USDA) and 60.4 (processor).

APPLE HARVEST DATES - 2002 PREDICTIONS

Every year the MSU Extension district fruit agents gather bloom data and weather records to predict the apple harvest dates for Michigan. This year the predicted harvest dates are most difficult to predict due to the extreme and unusual weather that occurred this spring. The dates in the accompanying table are the optimum harvest dates for apple storage.

Harvest dates are predicted for only three varieties: McIntosh, Jonathan, and Red Delicious. This year bloom occurred about normal in the southern part of the state and in the northern part, up to five days behind normal. The weather in all areas was frosty and this delayed and extended bloom. Apple maturity is predicted to be quite variable on trees and within blocks. Some sites set considerable fruit on one-year old wood that will mature a few days behind fruit born of older wood. Our predicted harvest dates for most areas will be two to seven days behind normal.

2002 MICHIGAN APPLE HARVEST DATE PREDICTIONS

Location	McIntosh	Jonathan	Red Delicious	Observer
SWMREC	9-11	10-2	10-8	B. Shane
Petersburg	9-12	10-3	10-9	B. Tritten
Flint	9-19	10-8	10-13	B. Tritten
Peach Ridge	9-20	10-9	10-14	P. Schwallier
Ludington	9-22	10-10	10-17	M. Danilovich
NWMHRS	9-25	10-12	10-18	G. Thornton

WEEKLY EVAPORATION and PRECIPITATION REPORT

Date	Evap/week	75% of Evap/week	Rainfall/wk at NWMHRS	Rainfall vs 75% of Evaporation	YTD Rainfall vs 75% Evaporation
5/7	1.10	0.83	1.20	+0.37	+0.37
5/14	0.99	0.74	1.04	+0.30	+0.67
5/21	0.98	0.74	0.34	-0.40	+0.27
5/28	1.22	0.92	0.90	-0.02	+0.25
6/4	1.44	1.08	1.94	+0.86	+1.11
6/11	1.28	0.96	0.14	-0.82	+0.29
6/18	0.69	0.52	1.81	+1.29	+1.58
6/25	1.65	1.24	0.94	-0.30	+1.28
7/2	1.97	1.48	0.05	-1.43	-0.15
7/9	1.91	1.43	0.49	-0.94	-1.09
7/16	2.09	1.57	0	-1.57	-2.66
7/22	1.94	1.46	0.34	-1.12	-3.78
7/30	1.40	1.05	0.05	-1.0	-4.78
Totals	18.57	14.02	9.24		

ACTUAL AND PREDICTED DEGREE-DAY ACCUMULATIONS SINCE MARCH 1, 2002 (*)

Please send any comments or suggestions regarding this site to:

Bill Klein, kleinw@pilot.msu.edu
Last Revised: 8-01-02

Northern Michigan FruitNet 2002
Weekly Update

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Michigan State University

August 6, 2002

GROWING DEGREE DAY ACCUMULATIONS through *August 5th* at the NWMHRS:

	2002	**2001**	**2000**	**1999**	**1998**	**1997**
Base 42	2294	2458	2345	2600	2607	2080
Base 45	1992	2120	1985	2244	2245	1777
Base 50	1546	1604	1441	1706	1691	1323

WEATHER

Some much needed rain fell in the region this past week, but amounts varied substantially. At the NWMHRS rainfall totals for the past two weeks were 0.05" and 0.65" respectively. Rainfall since July 1 is only 1.55". Evaporation the past two weeks was 1.60" and 1.68" respectively. These weekly rates for evaporation are lower than the previous five weeks, but are still quite significant. Please note that there was an error in last week's evaporation table. **The total weekly evaporation reported for July 30 should have been 1.60"**. Degree days base 42 by mid June were nearly equal to the very cold season of 1997, but are now over 200 ahead of 1997. Interestingly, base 50 is also over 200 ahead of '97. When compared to 2000, base 42 is behind by 51, while base 50 is ahead by 105. This all indicates that this season, the cool days have been colder (mostly during May and the first half of June), and the warm days have been warmer than the these recent comparable years.

COMMODITY REPORTS

Apple growers' main insect concerns are **apple maggot** and **codling moth**. Apple maggot trap catches were 1.5 adults per trap at the NWMHRS. Higher trap catches have been reported elsewhere. Codling moth trap catches averaged 0.5 moths per trap at the NWMHRS. Some orchards have reported substantially higher trap catches. This is the second flight of codling moth. We can now find larvae in unsprayed apples and pears from the first generation flight. **Spotted tentiform leafminers** are down to 140 moths per trap, a decline from last week. **Mite** numbers seem to be remaining stable in most orchards, despite the warm temperatures. This year mite populations have not exploded as they often do at this time in the season.

Cherry: **Cherry fruit fly** trap catches averaged 0.3 flies per trap at the NWMHRS. Balatons, which are not harvested, are still susceptible to injury from this pest. Sunday we had a light infection period for **cherry leaf spot**. Post harvest sprays can be applied at this time. **Two spotted spider mite** populations seem to be remaining stable and on the low side.

Brown rot is a concern in peaches, as they are near harvest time. A good fungicide program prior to harvest will help to insure a better shelf life. **Two spotted spider mites** are nearing threshold in some vineyards.

CIAB WEEKLY REPORT - Week Ending 8/3/02
Edited by Jim Nugent from the CIAB Raw Product Report by Perry Hedin

The pack (in millions of lbs) year to date (YTD) for Michigan is NW - 1.0; WC - 6.0; SW 7.1 for a Michigan total of 14.1

The pack (in millions of lbs) year to date (YTD) for Michigan is NW – 1.0; WC – 6.0; SW 7.1 for a Michigan total of 14.1 (processor estimate was 14.5 and USDA estimate was 15.0). Michigan producers are essentially done with harvest.

New York reports 11.5 YTD. This is down from last week's report, which contained a duplication in the reporting of production. Washington has packed 16.6 M lb and expects to harvest a bit more this week. Washington is expected to come close to the estimate of 17.0 (processor) to 18.0 (USDA).

Wisconsin continued harvesting last week with 2.5 M YTD and will have additional tonnage in week 6.

Total YTD for the U.S. is 53.9 M lb, compared to estimates for 2002 of 59.1 (USDA) and 60.4 (processor).

WEEKLY EVAPORATION and PRECIPITATION REPORT

Date	Evap/week	75% of Evap/week	Rainfall/wk at NWMHRS	Rainfall vs 75% of Evaporation	YTD Rainfall vs 75% Evaporation
5/7	1.10	0.83	1.20	+0.37	+0.37
5/14	0.99	0.74	1.04	+0.30	+0.67
5/21	0.98	0.74	0.34	-0.40	+0.27
5/28	1.22	0.92	0.90	-0.02	+0.25
6/4	1.44	1.08	1.94	+0.86	+1.11
6/11	1.28	0.96	0.14	-0.82	+0.29
6/18	0.69	0.52	1.81	+1.29	+1.58
6/25	1.65	1.24	0.94	-0.30	+1.28
7/2	1.97	1.48	0.05	-1.43	-0.15
7/9	1.91	1.43	0.49	-0.94	-1.09
7/16	2.09	1.57	0	-1.57	-2.66
7/22	1.94	1.46	0.34	-1.12	-3.78
7/30	1.60	1.05	0.05	-1.0	-4.78
8/6	1.68	1.26	0.65	-0.61	-5.39
Totals	20.54	15.28	9.89		

ACTUAL AND PREDICTED DEGREE-DAY ACCUMULATIONS SINCE MARCH 1, 2002 (*)

Please send any comments or suggestions regarding this site to:

Bill Klein, kleinw@pilot.msu.edu
Last Revised: 8-6-02

Northern Michigan FruitNet 2002
Weekly Update

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NW Michigan Horticultural Research Station
Michigan State University

August 20, 2002

GROWING DEGREE DAY ACCUMULATIONS through *August 19th* at the NWMHRS:

	2002	2001	2000	1999	1998	1997
Base 42	2690	2872	2695	2938	3004	2403
Base 45	2346	2492	2293	2540	2600	2058
Base 50	1830	1906	1679	1932	1976	1534

WEATHER

Much needed rain fell in NW Michigan during the past two weeks. Rainfall at the NWMHRS totaled 0.2" and 1.98" per week, respectively. Evaporation remained high for the same two week period at 2.13" and 1.61" per week. This past week was the first time rainfall has exceeded 75% of evaporation since the week ending 6/18 at the NWMHRS.

INSECTS & DISEASES
By Duke Elsner, EAA, Grand Traverse Co.

Cherry growers should find it easy to see adult **cherry fruit flies (CFF)** laying eggs in fruit in unsprayed, unharvested cherry orchards that have a source of adult flies. Some unsprayed blocks already have a very high percentage of the fruit currently infested by maggots or showing maggot injury. Expect heavy CFF pressure next year in blocks where some level of fruit was present in 2002. Blocks with no fruit present are likely to have very low CFF pressure next year. The same is likely to occur for **plum curculio**.

Last week's big rain resulted in a heavy infection period of **cherry leaf spot (CLS)** fungus. Due to the toughness of old leaves, the symptoms of this infection will not likely appear until mid-September. From this point on it is probably not worthwhile to make any post-harvest treatments for CLS.

Apple growers need to be concerned about **apple maggot** (AM) and **codling moth** (CM). AM adults on traps have remained steady. Trap catches of CM have dropped off at the NWMHRS, but at certain orchards which are CM hot spots the trap counts are still well above threshold, and fruit damage is still a concern. The second generation of CM should end in the next few weeks. **Spotted tentiform leafminer** (STLM) trap catches are down, and new sap-feeding and some tissue-feeding mines are now present, but it seems that the numbers are light and there will be little need for control. A number of blocks in the area have sustained significant mite injury to the leaves, easily seen by simply driving by. **Two spotted spider mite** populations have gone up significantly in some blocks, but their normal fall drop in population should come in early September. **European red mite** numbers are high in some places. Watch out for these more, as they do not leave the trees in the fall – they will begin to lay eggs on woody tissues and in the calyx end of fruits soon. **Green apple aphid** is still common where there is active shoot growth, but the impact of predators is picking up. Keep a close eye on young blocks that might still have significant amounts of growing shoot tips. Pear growers should be checking for increased **pear psylla** populations, which have already appeared in a few blocks.

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Peach and plum growers need to be on top of **brown rot** as harvest progresses. Brown rot threat increases rapidly as fruit ripening goes along. Post harvest quality of peaches is significantly improved by pre-harvest brown rot control materials. Plum growers also need to be concerned about **apple maggot** attack.

Grape growers are seeing the beginning of veraison in early varieties. So far, crop quality looks fairly good. **Spider mites** have increased to significant levels in some vineyards. **Potato leafhopper** numbers are down a bit, but this insect is still active and capable of impacting shoot growth, especially on young vines. Another threat to young vines are the giant caterpillars of **sphinx moths**– this is the season for finding the green or orange larvae with big white spots on their sides stripping the leaves from vines. Mature vines can tolerate a good deal of injury now, but vines in their first few growing seasons need to be protected from these caterpillars.

THE TART CHERRY CROP

It's time to close the record books on the 2002 tart cherry crop. Harvest (what little there was) concluded this past week in NW Michigan with the last of the Balaton. A harvest of 1 million pounds in NW Michigan goes into the records as the smallest crop since the keeping of records began in the 1920's.

The significant short- and long-range impacts and implications of the record-low tart cherry crop will be presented and discussed in detail as part of the program for the Northwest Michigan Horticultural Research Station annual open house, Thursday, August 29th.

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

NW MICHIGAN HORT STATION OPEN HOUSE

This year's Open House will be held on **Thursday, August 29th** beginning at **2:30 p.m**. There will be no equipment show. The afternoon will begin with an hour-long program featuring the results to date of the studies on the effects of orchard floor management alternatives on cherry production. Discussion to include the influence of pests, beneficials, tree growth, yield, fruit quality and nitrate leaching. Starting at 3:45 there will be a section covering financial and other related information that is pertinent to this unique year with no tart cherry crop.

The program will be followed by a social hour and pig roast, sponsored by the Leelanau Horticultural Society. The pig was purchased and donated by the Paul and Frances Johnson Foundation. Cost for the dinner is $15 and tickets can be purchased at the door. The evening will wrap up with a short awards program.

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7/30	1.60	1.05	0.05	-1.0	-4.78
8/6	1.68	1.26	0.65	-0.61	-5.39
8/13	2.13	1.6	0.20	-1.40	-6.79
8/20	1.61	1.21	1.98	+0.77	-6.02
Totals	24.28	18.09	12.07	--	--

ACTUAL AND PREDICTED DEGREE-DAY ACCUMULATIONS SINCE MARCH 1, 2002 (*)

Please send any comments or suggestions regarding this site to:

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