


[Home](#)
[Background  
& Projects](#)
[Calendar](#)
[Directions](#)
[InfoVideos](#)
[Links](#)
[Extension  
Expert Search](#)
[Publications](#)
[Staff](#)

## Northern Michigan FRUITNET 2000 Weekly Update

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

April 25, 2000

### WEATHER

Even with last week's rain, NW Michigan has received rainfall amounts well below normal. Young trees are always particularly susceptible to moisture stress if a drought were to materialize. If new orchards will not be receiving irrigation, then it may be a year to try particularly hard to get mulch around newly planted trees. The earlier mulch is applied, the better, as it will help reduce evaporative water loss from the soil.

### GROWING DEGREE DAY ACCUMULATIONS as of April 24<sup>th</sup> at the NWMHRS

Year	2000	1999	1998	1997
GDD42	214	189	245	103
GDD50	76	65	107	34

### GROWTH STAGES:

Apricot: Harcot – first bloom  
Plum: Stanley – green cluster  
Apple: Red Delicious - early tight cluster  
Sweet Cherry: Napoleon – early white bud  
Tart Cherry: Montmorency – early bud burst  
Grapes: Chardonnay - early bud swell

### COMMODITY REPORTS

*Climbing cutworms* are just starting to be active in most tree fruits. Growers should keep a close watch on newly planted fruit trees for bud damage. *Spotted tentiform leafminer* first flight has started in apples. The first *apple scab infection* period of the season occurred last Thursday and Friday. This was a light infection in a few areas, and not all areas experienced an infection.

*Green fruitworm* trap catches are dropping off in tart and sweet cherry. Growers who are interested in using pheromone disruption for *lesser* and *greater peach tree borer* control should put the ties out the time of tart cherry petal fall. There should be no problem with putting them out now if it is easier. Ties should be hung at a convenient height – shoulder high is fine. To avoid girdling, it is best to wrap ties around the branch, rather than twisting the ends up tight.

The first *pear psylla* hatch has occurred in pears.

Some strawberries without straw cover have experienced damage to the crowns, but much of this injury is healing. Growers with some injury should keep plants as stress free as possible.

### GETTING THE MOST FROM ROUNDUP

by Gary Thornton, District Fruit IPM Agent

Roundup (Glyphosate) is a systemic herbicide that is widely used in fruit production in Michigan. In order for Glyphosate to be effective, it needs to be absorbed into the plant. In soft water Glyphosate has no problems in being absorbed; however, in hard water Glyphosate will be "tied up" and not be absorbed as readily. This is known as "hard water antagonism". Hard water contains high concentrations of the soluble salts, calcium (Ca<sup>++</sup>) and magnesium (Mg<sup>++</sup>). When these are present in your spray water, the Glyphosate, which is negatively charged, will combine with them to form Glyphosate-Magnesium and Glyphosate-Calcium compounds. The plant does not as easily absorb these compounds and the result is poor uptake and poor weed control.

So how can growers increase the efficacy of their Glyphosate treatments? A common practice has been to add a surfactant to the spray tank; this allows the Glyphosate spray solution to spread across the leaf surface better and the result is greater absorption into the leaf. Many Glyphosate products now have the surfactant in them already, such as "Roundup Ultra". Roundup Ultra does not solve the hard water antagonism problem though, as the surfactant alone does not address this problem.

The hard water problem is best solved by adding 17 pounds of ammonium sulfate to 100 gallons of spray water. This has to be done prior to the Glyphosate being added. The addition of this compound to the spray water does two things. First, the sulfate ions tie up the calcium and magnesium ions by forming conjugate salts and secondly, some of the Glyphosate ends up as a Glyphosate-Ammonium compound, which some species of weeds preferentially absorb into their leaf tissue over Glyphosate alone. Urea-Ammonium Nitrate (28% liquid nitrogen) will also improve the efficacy of Glyphosate, but not as well as the Ammonium sulfate.

Reduced gallons of spray solution per acre will also have the effect of increasing the efficacy of the Glyphosate. Fewer gallons of water result in fewer calcium and magnesium ions to tie up the Glyphosate.

So if you have had less than ideal performance from your Glyphosate product and you think your water is on the hard side, then consider addressing the problem using Ammonium Sulfate.

[ACTUAL AND PREDICTED DEGREE-DAY  
ACCUMULATIONS SINCE February 15, 2000 \(\\*\)](#)

**Please send any comments or suggestions regarding this site to:**  
Bill Klein, [kleinw@pilot.msu.edu](mailto:kleinw@pilot.msu.edu)

Last Revised:4-25-00

**[Home](#) | [Site Map](#) | [Contact](#) | [Indicia](#) | [Logos](#)**  
AgBioResearch • 109 Agriculture Hall • East Lansing, MI 48824 • Ph: 517-355-0123

© 2010 Michigan State University Board of Trustees


[Home](#)
[Background  
& Projects](#)
[Calendar](#)
[Directions](#)
[InfoVideos](#)
[Links](#)
[Extension  
Expert Search](#)
[Publications](#)
[Staff](#)

## Northern Michigan FRUITNET 2000 Weekly Update

James E. Nugent Gary E. Thornton William M. Klein

NW Michigan Horticultural Research Station  
Michigan State University

April 11, 2000

### WELCOME TO FRUITNET 2000!

This weekly newsletter, written by area Extension agents, sent out of the NWMHRS via fax or email, will continue as in the past. FruitNet will be published on Tuesdays throughout the growing season. Funding for this is provided by the area horticultural organizations. Subscription is *free* in NW Michigan. Past subscribers will automatically remain on the list, unless you ask to be removed. New subscribers should contact the NWMHRS (946-1510).

### 60 HOUR WEATHER FORECAST

The "60 Hour Weather Forecast" (WeatherNet) also continues to be available for 2000. This is sent out either daily via fax during mid to late afternoon (once/day) or via email twice/day (afternoon and early morning). The cost for the fax version is \$30, while the email version is available for \$20. Proceeds from the fax version cover our telephone costs for subscribers, while dollars from email help keep the weather system at the NWMHRS upgraded and functioning.

This weather forecast provides important weather information in 3 or 6 hour increments. Contact the NWMHRS to subscribe for 2000.

### NEW FOR 2000! -- PESTNET AND NEW CODE-A-PHONE SYSTEM

Pestnet - A joint venture with HortSystems and MSU to bring real-time weather information from a network of electronic weather stations to all growers in NW Michigan! It's really an exciting pilot project made possible by funding from Project GREEN. See the soon to arrive Extension newsletter for details or contact the NWMHRS for more information.

New Code-A-Phone System - Now a much more sophisticated system with many options. Information will include pre-recorded messages on various topics. It will also interface with the user with information from the network of electronic weather stations via a computer voice synthesizer. Again, see newsletter for more details.

Phone numbers are:

947-3063 (local)

1-877-763-3300 (toll free long distance)

### WEATHER

By Jim Nugent, District Horticulturist, MSU-E

As of March 10<sup>th</sup>, base 42° F degree-day accumulation was 5 weeks ahead of normal. Normal to below normal temperatures have occurred since, and by April 3<sup>rd</sup> the degree day accumulation was 3 weeks ahead of normal; as of April 10<sup>th</sup> it slowed to only about 2 weeks ahead. At the NWMHRS we are currently 5 days ahead of last year, base 42.

### GROWING DEGREE DAY ACCUMULATIONS as of April 11<sup>th</sup> at the NWMHRS

Year	2000	1999	1998	1997
GDD42	161	132	133	70
GDD50	56	50	53	27

### GROWTH STAGES:

Apricot: Harcot – swollen bud

Plum: Stanley – early bud burst

Apple: Red Delicious - 1/4" green

Sweet Cherry: Napoleon – late swollen bud

Tart Cherry: Montmorency – swollen bud

Grapes: Chardonnay - early bud swell

### COMMODITY REPORTS

McIntosh apples are currently at 1/4" green with no insect activity to report. Numbers of European red mite eggs are low in most orchards. Oil sprays should be applied closer to tight cluster when the eggs are closer to hatching. Thorough coverage will give the best control, so apply oil as close to dilute as possible. Bartlett pears are at swollen bud. Pear psylla adults are active and continue to lay eggs. Sweet cherry is at late swollen bud. Bud damage occurred on 3/11 when temperatures fell into the lower teens. Bud damage appears to range from 0 to 70%, depending on variety and site. Damage appears to be worse on Gisela rootstocks than on standard rootstocks. Tart cherry is at swollen bud. In Montmorency bud damage is much less than in sweets, but similar to sweets in Balaton. Green fruit worm adults are flying and laying eggs. In wine grapes, just a bit of early bud swell has been seen on canes close to the soil, but overall, grapes are still quite dormant. No climbing cutworms have yet been seen. Pruning appears to be nearly complete.

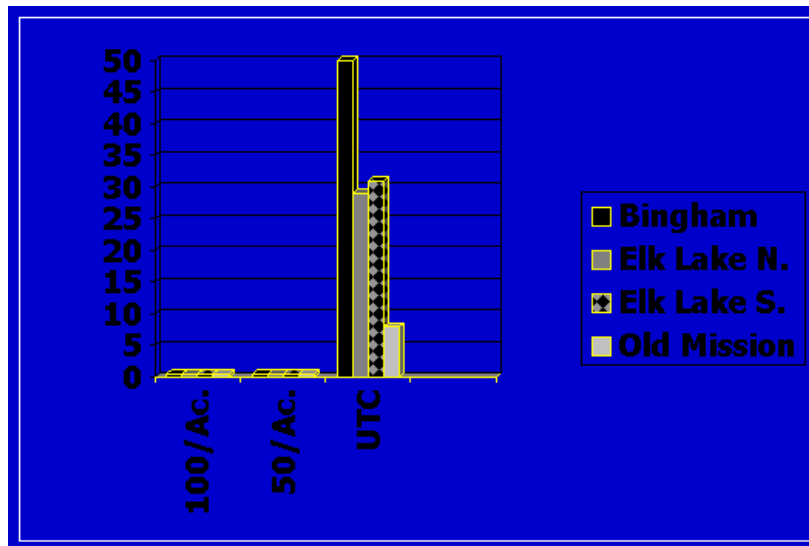
### NEW OPPORTUNITY FOR CONTROLLING PEACH TREE BORERS

Gary Thornton, District Fruit IPM Agent, Larry Gut, Department of Entomology

Stone fruit growers have available to them, for the first time, the opportunity to control both Lesser and Greater Peach Tree Borers without putting on trunk sprays. Pheromone Disruption has been tested for controlling Lesser and Greater Peach Tree Borers the last few years with great results. The Lesser Peach Tree Borer (LPTB) pheromone is the one that you want to use, as it will also disrupt the Greater Peach Tree Borer, however, it won't control the American Plum Borer (APB).

Growers can successfully prevent the borers from showing up in the trunks of their trees by distributing the pheromone ties evenly throughout the orchard, prior to the flight of the LPTB starting – prebloom to petal fall at the latest. The ties should be attached to the trees at shoulder height, whereas, Codling Moth ties have to be hung high in the tree. If these are applied at 100/acre then the male moths can't find the female moths and the result is that no fertile eggs will be laid and thus no larvae. One application has been shown to provide control for an entire season. The research below, which was done in NW Michigan shows that complete trap shutdown, which signifies control, occurred when either the 50 or 100 ties per acre rate was used. With other pests, trap shutdown is usually indicative of control, however, we are currently in the process of verifying that this is the case.

The trunk sprays have been and remain highly effective and have the advantage of also controlling the APB. So if you have had an APB problem then you should either continue on with your current program or consider using the pheromone disruption for a year and reevaluating your trees at that time. Growers that are next to urban areas should be particularly interested in this product, as the Lorsban 4E, that is typically used for the trunk sprays, is also the number one homeowner complaint that we have in NW Michigan. In situations like this, pheromone disruption could help a particularly sticky situation and improve the overall image of agriculture.



#### Lesser Peach Tree Borers Caught per Year in Cherry Orchards

Pheromone disruption ties for the LPTB are sold in 400 to the pack and can be purchased from Great Lakes IPM (517-268-5693), as well as many of the local Ag Chem dealers. If you do not use them up, they should be put in the freezer and will store that way until the next growing season.

[ACTUAL AND PREDICTED DEGREE-DAY ACCUMULATIONS SINCE February 15, 2000 \(\\*\)](#)

**Please send any comments or suggestions regarding this site to:**

Bill Klein, [kleinw@pilot.msu.edu](mailto:kleinw@pilot.msu.edu)

Last Revised:4-11-00