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Northern Michigan FruitNet 2011
Weekly Update
NW Michigan Horticultural Research Station

Nikki Rothwell, District Horticulturist
Erin Lizotte, District Fruit IPM/IFP Agent
Bill Klein, Farm Mgr, NWMHRS
Duke Elsner, Agricultural & Regional Viticulture Agent

September 6, 2011

GROWING DEGREE DAY ACCUMULATIONS through September 5th at the NWMHRS

Year	2011	2010	2009	2008	2007	2006	21 yr. Avg.
GDD42	3196	3604	2770	3083	3469	3427	3139.1
GDD50	2147	2414	1701	2019	2338	2279	2055.1

Weather Report
Temperatures have gone from summer to fall pretty quickly here in the north. Our daytime temperatures only reached into the mid-50's yesterday, and it was the coldest day ever reported on 5 September in Traverse City. Temperatures are forecasted to be more typical in the coming days. We did receive much needed rain over the weekend, and the NWMHRS weather station recorded 0.35" on 3 September and 0.15" on the 4th.

Crop Report
Peach harvest continues but is winding down. Peaches were smaller than in past years, likely due to the lack of rainfall this season. Growers are just starting to harvest apples, and Paula Reds and other early varieties are coming off now. I anticipate GingerGold harvest to begin soon across the region. Apple quality is looking good at this time.
Pest Report

Cherry

Plum curculio continues to be caught in pyramid traps—particularly in blocks with fruit still hanging and those adjacent to woodlots. **Oblique-banded leafroller** (OBLR) adult emergence continues at significant numbers (19 per trap), and this season, the second generation flight has been surprisingly protracted. Many area growers have transitioned away from organophosphates which have become ineffective OBLR materials due to resistance. OBLR history in apple production tells us it may take one or two seasons before populations can be brought under control with the new lepidopteron materials. **Lesser** and **greater peachtree borer** as well as **American plum borer** continue to emerge at very low levels (less than 1 per trap on average). **Cherry fruit fly** continues to be caught in high pressure sites, but at very low numbers. **Cherry leaf spot** infection and defoliation continues around the region, retaining leaves through September helps minimize the negative effects of early defoliation. **Powdery mildew** is present, particularly on vigorously growing shoots.

Apple

Codling moth emergence has slowed but continues. We often do not see a clear distinction between first and second generation in the north, and 2011 is no exception with adult moths continuing to be trapped each week since the end of May. Codling moth resistance to the OP compounds has been detected in Michigan orchards throughout the state, the levels of resistance detected were high enough in those orchards that sole reliance on OP's for CM control is not likely to provide sufficient control. In addition, populations resistant to OP compounds may also be resistant to pyrethroids. There are a number of new lepidopteron materials available (see the E-154 spray guide). Always read and follow all pesticide labels carefully. **Oblique-banded leafroller** numbers were back up with an average of 4 per trap. We are seeing some fruit scab on highly susceptible varieties, specifically Macintosh. **Powdery mildew** is minimal.

Winegrapes

Brix level, flavor and color was developing at a good pace until the cooler and wet weather arrived on September 2nd. Hopefully the much needed moisture will be followed by a bit warmer and sunnier weather over the next few weeks. Bird netting has been deployed at many sites.

Powdery mildew has become a bit more easy to find, appearing on leaves and berries in several locations. Heavy infections have been seen in some vineyards that did not have good canopy management earlier in the season. Recent rains may promote the development of cluster rots, especially if there has been prior damage to the fruit from grape berry moth larvae or wasps.

ENOLOGY EDUCATION SERIES
ONLINE REGISTRATION IS NOW OPEN for pre-harvest workshop on wine and must analysis with Dr. Barry Gump! Please note that each workshop location has its own registration link:

Click here for Jackson workshop @ Sandhill Crane
Click here for Paw Paw workshop @ St. Julian
Click here for Traverse City workshop @ Chateau Chantal

This is a pre-harvest workshop on wine and must analysis with Dr. Barry Gump. This is going to be a hands on workshop, giving you the chance to polish up on your old skills or learn new ones.

We are bringing this workshop to your backyard (NW, SW and Jackson), making it easy for you to attend during this busy time of year.

***You must register in advance, and the registration deadline is **September 22.** We have 30 spots available at each location. See attached flyer for program details and mail-in registration form.

Apple Maturity Testing at the NWMHRS

This year the NWMHRS will be testing apples for maturity. Results will be sent via fax and email to past apple maturity list subscribers. The maturity newsletter will be updated weekly on Wednesdays. If you have not received this information in the past and wish to subscribe to the list, please contact the NWMHRS (946-1510 or nwmihort@msu.edu).

If you are interested in having your fruit tested, drop off a 10 – 12 fruit sample at the NWMHRS on Mondays, if possible. The fruit should be picked randomly from the outside portion of the trees and should be large in size and free of blemishes with the stem attached.

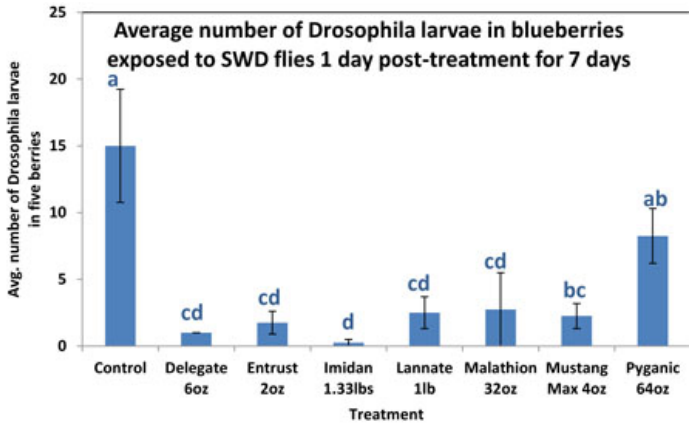
SPOTTED WING DROSOPHILA CATCHES INCREASE: MONITOR AND PROTECT RIPENING, SUSCEPTIBLE FRUIT
The recent detections of this pest are of greatest concern for growers with raspberries, blackberries or blueberries yet to harvest.
Published September 2, 2011, MSU-E News for Agriculture - Fruit
Rufus Isaacs and Steve Van Timmeren, Michigan State University Extension, Department of Entomology

Traps for spotted wing Drosophila (SWDF) are increasing in their frequency and the level of catches of SWD, especially at blueberry and raspberry sites where growers have completed harvest. Fields that are still being managed actively generally have lower catches than those where harvest and insect pest control sprays are complete for the year.

More SWD flies are being caught in traps baited with yeast-sugar solution compared with those baited with apple cider vinegar and in some cases the yeast traps are catching at sites where the vinegar traps have not caught any flies. Although we have recommended the apple cider vinegar bait because of its relative ease of use and lower cost to operate, scouts checking fields with ripe fruit still to harvest might want to also deploy a trap with an inch of yeast bait for comparison. The yeast bait recipe we are using is 4 Tbsp. sugar: 1 Tbsp. active dry yeast: 12 oz. water.

The increase in captures raises the question of whether pest control activities are warranted. If the crop has been harvested and there are no susceptible fruit nearby, we do not consider it worth the time and expense to apply insecticides for SWD control. This is based on the fact that this pest has very high levels of winter mortality and so the vast majority of the flies will be killed during the winter, plus this insect is present in natural areas around fields where sprays will have little effect. However, if fields still have some harvest remaining and flies are trapped in that field or if flies are trapped in post-harvest fields immediately adjacent to such fields, applications to control SWD and protect fruit from this pest should be made.

We have recently completed a study in which blueberry clusters were treated with different insecticides to test their performance against SWD. Treatments were made in a field of Jersey variety. Treated shoots were picked the next day, then placed in containers with 10 SWD (five male flies: five female flies). After one week, the fruit were collected and assessed for the number of Drosophila larvae. The results are presented below.



Based on this research of testing insecticides for SWD control in Michigan blueberries, we recommend the following insecticides at the rates per acre shown here: Delegate (6 oz), Imidan (1.33 lb), Lannate (1 lb), Malathion 8F (32 oz), or Mustang Max (4 oz). Entrust (2 oz) is the available and effective option for organic blueberry growers that has residual control. Pyganic (64 oz) had low activity in these trials, but may provide some control if applied on a shorter interval. We also emphasize that the neonicotinoid class (Provado, Actara or Assail) have shown low performance against this pest in our trials and in trials in other states, so these should not be used for SWD control.

Growers should use this information plus the pre-harvest interval (PHI) restrictions, and any potential MRL considerations, when making decisions regarding which insecticide to use to protect fruit against SWD. For example, Delegate and Imidan have three-day PHIs in blueberry, whereas Malathion has a one-day PHI.

This article has focused on blueberries because that is where much of our research is focused. There have also been detections of SWD in raspberry and blackberry fields, so the points made above are also relevant to those crops. However, pesticide registrations and restrictions may be different, so please check MSU Extension bulletin E-154, *2011 Fruit Management Guide,* to make sure that control options are registered. There is also a bramble-specific SWD management guide, *Spotted Wing Drosophila Management Recommendations for Michigan Raspberry and Blackberry Growers,* available online at MSU IPM Program's spotted wing Drosophila website.
Dr. Isaacs' work is funded in part by MSU's AgBioResearch.

COMMISSION ON AGRICULTURE & RURAL DEVELOPMENT SEEKS PUBLIC INPUT ON AGRICULTURAL MANAGEMENT PRACTICES

Deadline to provide comment is September 28, 2011

The Michigan Commission of Agriculture and Rural Development and the Michigan Department of Agriculture & Rural Development (MDARD) announced a Public Input Meeting and review period has been scheduled for **September 28, 2011** in order to gather comments on the 2012 drafts of the state's Generally Accepted Agricultural and Management Practices (GAAMPs).

Public comment will be taken on the following GAAMPs: Manure Management and Utilization, Cranberry Production, Site Selection and Odor Control for New and Expanding Livestock Production Facilities, Farm Market, and Irrigation Water Use. The GAAMPs regarding Nutrient Utilization, Care of Farm Animals and Pesticide Utilization and Pest Control have no proposed changes for 2012.

The GAAMPs Public Input Meeting will be held at 9:00 a.m. on Wednesday,
September 28, 2011, in the Lake Superior Conference Room at the State of Michigan Library & History Center located at 702 West Kalamazoo Street, Lansing, MI.

Written comments may be submitted to MDARD's Environmental Stewardship Division,
P.O. Box 30017, Lansing, MI 48909 and postmarked no later than September 28, 2011, or sent via e-mail to casteelh@michigan.gov by 5 p.m. on September 28. MDARD will forward all comments received by the due date to the respective GAAMPs Task Force chairpersons for consideration prior to final review and adoption.

The Michigan Right to Farm Act provides nuisance protection for farms and farm operations. In order to have this protection, the farm or farm operation must conform to GAAMPs, which are set by the Michigan Commission of Agriculture and Rural Development. These GAAMPs are reviewed annually by scientific committees of various experts, and revised and updated as necessary. Public comment is accepted and considered before final versions of the GAAMPs are approved.

For a copy of any of these GAAMPs including the proposed revisions, please visit www.michigan.gov/gaamps, or contact the MDARD's Environmental Stewardship Division at
(517) 373-9797, or toll free at (877) 632-1783.

WEBSITES OF INTEREST

CIAB Weekly Raw Product Report – Week 9
http://www.cherryboard.org/Week92011.pdf

Trapline Counts from the NW Michigan Horticultural Research Station
http://agbioresearch.msu.edu/nwmihort/trapcount.htm

Insect and disease predictive information is available at:
http://enviroweather.msu.edu/homeMap.php

60 Hour Forecast
http://www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous46ktvc

Information on cherries is available at the new cherry website:
http://www.cherries.msu.edu/

Fruit CAT Alert Reports
http://www.ipmnews.msu.edu/fruit/

This issue and past issues of the weekly FruitNet report are posted on our website at:
http://agbioresearch.msu.edu/nwmihort/faxnet.htm

ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE MARCH 1, 2011

Please send any comments or suggestions regarding this site to:
Bill Klein, kleinw@msu.edu

Last Revised: 9-7-11

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September 13, 2011

CONTROL WEEDS THIS FALL TO IMPROVE FRUIT CROP FIELDS NEXT SPRING

Both tree and small fruit can benefit from applying herbicides in the fall for enhanced weed control in fruit crops the following year.
Published September 7, 2011, MSU-E News for Agriculture - Fruit
Bernard Zandstra, Michigan State University Extension, Department of Horticulture

Fall is a good time to apply residual and systemic herbicides for control of difficult and persistent weeds in perennial crops. Many of the residual herbicides labeled for tree fruit and small fruit are recommended for fall application. Fall application may improve control of difficult perennials, biennials and winter annuals. In addition, fall-germinating annuals, such as horseweed, are vulnerable in the fall. Yellow rocket and dandelion are also controlled more easily in the fall. An application of glyphosate plus a residual herbicide can give two to three months of very good control in the spring.

For optimum quackgrass control, apply Kerb (pronamide) in the fall just before soil freezes. Kerb will suppress quackgrass for about two to three months in the spring. Addition of glyphosate will kill the fall flush of horseweeds, mustards, wild carrots and dandelions. Kerb should be tank-mixed with a PSII inhibitor in the fall, or followed by another residual herbicide in the spring. This will provide good broad-spectrum weed control into July of the following year.

Princep (simazine), Solicam (norflurazon), Casoron (dichlobenil), Sinbar (terbacil) and Chateau (flumioxazin) labels allow for spring or fall application. The Alion (indaziflam) label does not mention time of application. All of these herbicides have long residual activity if applied in the fall. They should be rotated to avoid use of the same mode of action more than once a year, and some combination of pre- and post-emergence herbicides will give the most effective weed control program.

An effective weed control program might include Chateau (PPO inhibitor) plus glyphosate in the fall, followed by a PSII inhibitor (Karmex, Pincep, Sinbar) or Matrix (ALS inhibitor) in the spring. In crops where there is minimal danger of crop injury from glyphosate (i.e., mature apple trees), an application of a foliar-active herbicide during the season will help control most annual and perennial weeds. In crops where glyphosate can cause crop injury (i.e., blueberries), growers may consider the use of Rely (glufosinate), Gramoxone (paraquat), Aim (carfentrazone) or Venue (pyraflufen-ethyl) for application during the growing season.

The Alion label for pome fruit, stone fruit and tree nuts was approved in 2011. Product should be available for the 2012 growing season. Alion gives good control for two to three months of most annuals and some perennials. It tends to be weak on horseweed and common ragweed. Growers who are looking for a different mode of action may try Alion.
There are several other herbicides which are close to registration for fruit crops. Katana (flazasulfuron) is a very active ALS inhibitor (similar to Matrix and Sandea). It provides very good control of most weeds, except field bindweed. Treevix (saflufenacil) should be registered soon for post-emergence control of horseweed and other broadleaves in tree crops. Treevix following Chateau or Alion is a good choice in fields with heavy horseweed populations.

Always read and follow label instructions for all herbicide applications. Current recommendations will be included in the MSU Extension bulletin, 2012 Fruit Management Guide (available late fall at MSU Extension's bookstore.)
Dr. Zandstra's work is funded in part by MSU's AgBioResearch.

REDUCTION OF OVERWINTERING INOCULUM IN ORCHARDS WITH APPLE SCAB

Cultural controls reducing apple scab-infected leaf litter prepare the orchard for more effective control next year.
Published September 8, 2011, MSU-E News for Agriculture - Fruit
George W. Sundin and Amy Irish-Brown, Michigan State University Extension, Department of Plant Pathology

With all of the control difficulties we are facing due to fungicide-resistant isolates of the apple scab fungus in Michigan orchards, we need to increasingly utilize additional management options. Cultural control methods that reduce leaf litter that contains scab lesions are a great physical method of inoculum reduction. These are equal opportunity methods, i.e.,

both fungicide-resistant and fungicide-sensitive isolates are affected, which is excellent. While degradation of leaf litter in orchards is never 100 percent effective, use of urea or flail mowing should result in a significant reduction of the spore load for next year. Reduced spore loads mean more effective scab control next year.
Orchards with existing apple scab infections on leaves will again carry-over significant inoculum into next season. Same as last year, much of this inoculum will likely be resistant to strobilurin fungicides and to sterol inhibitor fungicides. Thus, any methods that would be useful in reducing this inoculum load are important to consideration.

The apple scab fungus overwinters in fallen leaves. During the following spring, the fungus undergoes a sexual cycle and produces a fruiting body called the pseudothecium that contains the ascospores. These ascospores are the spores that represent the primary inoculum. Development of these spores is timed with the tree's development, and the spores can begin to be released around green tip.
Inoculum-reduction methods serve to reduce the primary ascospore load by eliminating some of the apple scab-infected leaves. Any reduction of scab-infected leaves directly correlates with a reduction in primary inoculum. Now, it is impossible to completely eliminate this inoculum, but spore-reduction strategies have been effective in reducing spore loads by 50 to 80 percent.
The two main methods for spore reduction are:

Application of urea to fallen leaves in fall or spring
Shredding of leaf litter with a flail mower
A 5 percent solution of urea (spray urea or greenhouse grade) (40 lbs. urea in 100 gallons of water) is used to increase the breakdown of leaves. Urea will stimulate indigenous microbial breakdown of leaves; urea can also soften leaves which are then more easily ingested by earthworms. Earthworms will work better as the temperatures rises; thus, urea applied in November may not be as effective if followed relatively quickly by freezing temperatures and snow cover. An application in spring can be highly effective in spore reduction and the urea may also directly inhibit ascospore formation.

Another possibility is the direct application of urea to leaves on trees. This method is usually less effective because if the leaves do not drop within seven days after application, the nitrogen present will be taken up into the tree and not be available for leaf degradation. Finally, urea sprayed on the ground beneath the tree canopy will also add to the nitrogen fertilization of trees and subsequent N fertilization rates should be adjusted accordingly.

Shredding leaf litter in the spring increases microbial breakdown of leaves by providing more pieces that can be invaded and consumed. In addition, mowing tends to re-orient most of the leaf pieces on the orchard floor. When the scab fungus is developing pseudothecia, the structures are all oriented in a vertical direction with the opening facing up. The spores are forcibly ejected out of the top of the pseudothecium. If a leaf piece containing a pseudothecium is inverted, the spores are ejected into the soil and not into the air. Thus, re-orientation also decreases inoculum load be preventing the fungus from effectively discharging spores.
A few other points about mowing:

The mower must be set low enough to reach leaves low to the floor.
The mower must be offset to reach leaves beneath the trees.
If the mowing is done later in the spring, the re-orientation of leaves is also effective. Prior to spring, the pseudothecia structures have not developed yet.
Dr. Sundin's work is funded in part by MSU's AgBioResearch.

IS IT A GOOD TIME TO BE A BUYER OR SELLER OF AGRICULTURAL LAND?
Curtis Talley Jr. MSUE, Hart, MI

A number of factors have come together to provide unique circumstances that can be beneficial for both buyers and sellers of agricultural land: strong demand for land; interest rates at almost all time lows; and, long term federal capital gains tax rates not seen since 1933, are all involved. Let's take a look at these factors.

Demand for Land
Interest in farmland is rising globally. Population growth, rising incomes and demand for better diets is driving demand for food products, oilseed and livestock. The world's population is growing 1.2% annually, fueling the increased demand for protein at a 2.5% annual rate. Arable land is declining in China, India and the US. The world historically held large reserves of food and fiber in storage, but those reserves have been liquidated due to large scale floods, droughts, or other weather events that have occurred. China used to carry a year's corn crop in reserve, but it is down to 20% of last year's crop. India used to carry almost a year's reserve of wheat, but it is down to 35%. China and the US historically carried 50% of a year's cotton crop, but that is almost all gone.

Institutional investors (pension funds, private equity groups) see farmland as a diversification to their portfolio, an inflation hedge, a safe haven and a source of stable returns. Institutional investors seek long term stable returns of 6-8% and that can be done with agricultural land. Since 1970 farmland averaged returns of 12% annually, better than the S&P 500, but with the risk of corporate bonds. The only investment that has shown less volatility than farmland long term returns has been US Treasuries.

Investors have historically done their best to avoid overpaying for agricultural land. They are looking for a 5-6% gross cash return, so if land is priced at $3,000 per acre, a cash rent of at least $150/acre is necessary.

Recent weather events, increasing demand for food, fiber and protein brought on by higher incomes in developing countries and population growth, have contributed to a significant increase in commodity prices. This in turn, has increased net income levels for farmers, providing the additional cash flows that have contributed to increase the demand for farmland.

Interest Rates
According to Federal Reserve Board statistics that began in 1930, the prime rate (what commercial banks charge their best customers) did not exceed 2% until after 1950. Since then, it has fluctuated from 3% to 20%. The prime rate has been declining since 1980 and during the first week of May, 2011 it was 3.25%. This current historically low prime rate has translated into low mortgage rates that began around 2004. Are we taking these low rates for granted? It is easy to

forget historical trends. Between 1976 and 1981, mortgage interest rates ranged from 11% to in the 21% range . That was a doubling of rates in 5 years. My wife and I bought our first home as a couple in 1986 and we were tickled to death to obtain a 13% mortgage rate! It had gone down from 15%! No one knows how long these low rates will last, but some experts sense we are close to a bottom. Many feel there is a greater chance of rates going up than going down, particularly after 2012, when the economy is predicted to have recovered more from the current recession.

Taxes From Income

We are in a period of historically low long term federal capital gains tax rates. Rates have historically been at least 20%. The period from 1922 to 1933 is the only period that rates were 12.5% or lower. From 1934 to 1996 the maximum capital gains tax rate exceeded 25% and was in excess of 32% from 1970 to 1978. This increased to as high as 39.9% in 1976-78. For a married couple filing jointly with $69,000 or less of taxable income, the capital gains tax rate will be 0% in 2011.

Capital gain is the profit you make from holding a capital investment such as land. For example, if you buy a parcel of land for $4000 per acre and hold it longer than one year and sell it for $5,000/acre, there is a long term capital gain of $1,000 per acre. There can be deductions to this gain to reduce it slightly, but for the purposes of this article the gain is $1,000/acre. The tax rate applied to the gain is based on the income tax rate bracket of the payor, or in this case the seller of the farmland.

The federal government levies a tax on long term capital gains based on the taxpayer's taxable income bracket. Under current law (until the end of 2012), if your adjusted gross income is less than $69,000 for a married couple ($34,500 single), the tax rate for long term capital gains is 0% (10% and 15% tax bracket). If your income is higher than $69,000, the rate is 15% (25% tax bracket and above). Capital gains tax rates have not been this low since 1933. These rates will continue until the end of 2012. Without changes to the tax law by Congress, the top rate will increase to 20% beginning in 2013.

As an illustration, let's say that you bought 60 acres of land for $1,000/acre and are considering selling it for $2,000/acre and you have owned the land for 5 years and your taxable income after deductions and exemptions for income taxes is less than $69,000. The land sale creates a long term capital gain of $1,000/acre. So, there is a total capital gain of $60,000 (60 acres x $1,000/acre). If you sell the land in early 2012 and receive 100% of the proceeds before the end of 2012 and your taxable income for income taxes is less than $69,000, **you will pay no federal income tax** on the capital gain. How can this happen? That $60,000 of capital gain is tax free because you are in a lower tax bracket (up to the top of the 15% bracket). This is only effective under current law, which expires at the end of 2012. (Remember that you use up your standard and itemized deductions before you have taxable income.)

We are currently in an unusual loan interest and income tax rate situation whereby demand for agricultural land is high while long term interest rates and federal capital gains tax rates are at or near historic lows.

Unless Congress changes the tax law, the long term capital gains rate increases to 10% from 0% and to 20% from 15% after 2012.

These examples are for educational purposes only. Consult a qualified tax or investment professional before embarking on capital purchases or the sale of capital assets.

If you have any questions or need any additional information contact your local Michigan State University Extension Farm Management educator or the author, **Curtis Talley Jr., Farm Management Educator** talleycu@anr.msu.edu ; phone: 231-873-2129

Jeff Conrad, president of Hancock Agricultural Investment Group, presentation to Global Ag Investing Conference, 2011.

Gary Taylor "2020 Vision for Agriculture" presentation at Chicago Agriculture Summit, December, 2010

Mortgage Intelligence May 11, 2011.

Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010.

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60 Hour Forecast
http://www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous46ktvc

Information on cherries is available at the new cherry website:
http://www.cherries.msu.edu/

Fruit CAT Alert Reports
http://www.ipmnews.msu.edu/fruit/

This issue and past issues of the weekly FruitNet report are posted on our website at:
http://agbioresearch.msu.edu/nwmihort/faxnet.htm

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Please send any comments or suggestions regarding this site to:

Bill Klein, kleinw@msu.edu

Last Revised: 9-13-11

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September 20, 2011

GROWING DEGREE DAY ACCUMULATIONS through September 19th at the NWMHRS

Year	2011	2010	2009	2008	2007	2006	21 yr. Avg.
GDD42	3448	3833	3104	3337	3747	3707	3439.6
GDD50	2296	2535	1924	2162	2448	2640	2245.5

THIS IS THE LAST REGULAR FRUITNET REPORT OF THE 2011 GROWING SEASON

Weather Report

As with most of the state, spring started off wet and cold in the north. In May, we had only accumulated about 218 GDD Base 50 and 403 GDD Base 42 since 1 January. We also had ample rainfall in May, and the good news was that temperatures were often too cool to trigger infection periods for the different diseases. June was also cool and rainy, but by July, temperatures turned hot and dry. In July, the NWMHRC only recorded ~0.5" of rainfall. Most daytime temperatures in July were in the mid-80's and we also had a few days where we reached into the 90's. August was also hot and dry, but we did have 1.5" of rain, which was spread over more days during this month. Overall, the NWMHRS accumulated 3448 GDD Base 42 and 2296 GDD Base 50. During the 2010 season, we accumulated 385 more growing degree days Base 42 and 239 GDD Base 50. Compared to our 21-year average, the 2011 season had 8.4 more GDD Base 42 and 50.5 GDD base 50—in the end, the 2011 season was fairly comparable to 'normal'.

Crop Report

The strawberry crop started out the season in the northwest pretty strong despite the early season wet weather. Strawberry harvest and quality was good although some varieties were slightly smaller than expected. Tart and sweet cherry harvest also produced high quality fruit, which was not anticipated because of the extremely hot weather during the harvest period. Sweet cherry yields were good, albeit smaller than expected. However, the hot and dry weather later in the season prevented a devastating loss due to American brown rot issues. No soft fruit was reported in tart cherries, and again the hot weather helped growers stay ahead of cherry leaf spot infections. We had no frost events in the spring of 2011, many growers anticipated a larger harvest. When all reports were in, we harvested 92.5 million pounds of tart cherries, but the USDA estimated we would harvest 135 million pounds. We conclude that the smaller crop size was due to pollination issues, cold and wet weather, during bloom. Peach harvest was good, although size of fruit was small with little rainfall late in the season. Lastly, we are off to a good start in apple harvest, and thus far, only earlier varieties have been harvested: Paula Reds, Gingergolds. We expect to ramp up apple harvest next week.'

Pest Summary for NW Michigan 2011

Cherry

It was a challenging season for cherry producers this year, particularly with the wet early season. Spring weather was favorable for **bacterial canker**, and infections were seen on sweet and tart cherry leaves as well as fruit. Tart and sweet cherry leaves that had bacterial canker infections early caused some defoliation throughout the summer. We also saw early defoliation from **cherry leaf spot** (CLS), another disease that got an early foothold this spring. The second and third weeks in May were very rainy and growers were challenged to keep foliage covered to prevent CLS infection. We suspect growers had fungicide wash off with the prolonged wetting period early in the season, and it was difficult to get back into the orchard to reapply fungicide applications with the continuous rain. This scenario resulted in CLS infections in May, and some blocks with severe infection dropped leaves in early to mid-July. The cherry leaf spot model predicted significant infections the third week in May, mid-late June, mid July, and early August. **Cherry yellows** and **green ring mottle virus** also made an appearance this season. Growers also saw defoliation from apparent phytotoxicity issues, perhaps due to slow drying times and high temperatures. **Bacterial canker** infection on fruit and hail damage created early **American brown rot** infections that growers battled season long. **European brown rot** was prevalent in Balatons and observed in Montmorency. **Powdery mildew** infections were moderate with most infections occurring on terminals and vigorously growing shoots. Despite intense early season disease pressure, many growers harvested a high quality crop and kept leaves on the tree well into September. We hypothesize that the hot, dry weather abated much of the disease concerns

from earlier in the season.

Oblique-banded leafroller (OBLR) began emerging as larvae in late May with our first adult moth trap catch recorded on 20 June; moths have been caught every week since with peak flights recorded on 27 June and 29 August. Many area growers transitioned away from organophosphates this season as these chemistries have become ineffective OBLR materials due to resistance. OBLR history in apple production tells us it may take one or two seasons before populations can be brought under control with the new lepidopteron materials. Unfortunately again this season, there were isolated incidents of OBLR as a contaminate issue in tanks at harvest. The **borer** complex in cherry also had a protracted emergence period this season. **American plum borer** (APB) emergence began on 23 May and continued the entire season with positive trap catches into September. Peak emergence of the two APB generations occurred on 31 May and 1 August. **Lesser peachtree borer** began emerging in early June, peaked in late July and continued emerging at a slow pace into fall. **Greater peachtree borer** emergence began on 27 June, peaked around 1 August and continued into the fall. **Cherry fruit fly** numbers were quite high this season, and emergence began the first week in July and peaked with 330 flies captured in 6 traps on 1 August; emergence concluded by the end of August. **Black cherry fruit fly** populations were smaller and had a shorter emergence period from 27 June through 16 August. **Plum curculio** populations were certainly active this season with activity detected on 16 May and stings visible as soon as fruit was out of the shuck. Even after fruit was harvested, feeding activity continued in area orchards with pyramid traps still catching weevils on 29 August. **Two-spotted spider mites** were detected in mid-July and pressure was very high in some area orchards going into fall with the hot and dry weather.
Winter injury was also observed around northwest Michigan this spring.

Apple
With the rainfall in June, the primary scab infection period was protracted and challenging. Despite these challenges, growers managed scab well this season with only isolated problems on highly susceptible varieties or in blocks that had high inoculum levels. **Fire blight** was a frequent concern this spring with multiple streptomycin applications being utilized and the epiphytic infection potential reaching levels of 300+, illustrating the extreme risk of infection. Despite the intense pressure, few fire blight infections occurred and growers pruned out strikes as the weather dried up this summer**.** **Powdery mildew** infection was minimal this season.

Spotted tentiform leafminer numbers were substantial with a high trap catch of 960 on 23 May and emergence running from 9 May – 8 August. **Codling moth** emergence began on 23 May with first generation peak emergence the second week of June. There was no clear delineation between first and second generation with emergence continuing into early September, a phenomenon common in the north. Growers did report some issues in controlling codling moth populations this season. **Oblique-banded leafroller** larvae were observed in late May with adult flight recorded on 20 June and peak emergence occurring one week later. Low levels of OBLR emergence has continued into the fall. **Apple maggot** numbers remained low this year with just 9 trapped the entire season. Apple maggot emergence began 1 August and continued sporadically into September. **Plum curculio** were conspicuously absent from the apple orchards scouted in the north, and minimal egg laying scars were reported by area scouts. **Mite** and **aphid** levels were moderate this season.

REGISTRATION REMINDER FOR WINE AND MUST ANALYSIS WORKSHOP
This is a reminder to register for the upcoming workshop on wine and must analysis with Dr. Barry Gump. This is going to be a hands on workshop, giving you the chance to polish up on your old skills or learn new ones. We are bringing this workshop to your backyard (NW, SW and Jackson), making it easy for you to attend this busy time of year. See attached flyer for program details and mail-in registration form. Online registration links are below. Please note that you must register by September 22, and attendance is limited to 30 people at each workshop location.

Thanks to everyone who has already registered! Registered attendees will be entered in a raffle for a free Mettler Toledo Quick Brix 60 Refractometer - Many thanks to Derek Lenz at Mettler Toledo for donating this instrument!

Click on the registration link for the workshop you want to attend:

Click here for Jackson workshop @ Sandhill Crane
Click here for Paw Paw workshop @ St. Julian
Click here for Traverse City workshop @ Chateau Chantal

September 26, 2011 - Jackson
8:30AM-4:30PM
Sandhill Crane Vineyards & Winery
4724 Walz Road, Jackson

September 27, 2011 - Paw Paw
8:30AM-4:30PM
St. Julian Wine Company
716 S. Kalamazoo Street, Paw Paw

September 29, 2011 - Traverse City
8:30AM-4:30PM
Chateau Chantal
15900 Rue de Vin, Traverse City

WEBSITES OF INTEREST

Apple Maturity Reports
http://agbioresearch.msu.edu/nwmihort/applemat.html

Trapline Counts from the NW Michigan Horticultural Research Station
http://agbioresearch.msu.edu/nwmihort/trapcount.htm

Insect and disease predictive information is available at:
http://enviroweather.msu.edu/homeMap.php

60 Hour Forecast
http://www.agweather.geo.msu.edu/agwx/forecasts/fcst.asp?fileid=fous46ktvc

Information on cherries is available at the new cherry website:
http://www.cherries.msu.edu/

Fruit CAT Alert Reports
http://www.ipmnews.msu.edu/fruit/

This issue and past issues of the weekly FruitNet report are posted on our website at:
http://agbioresearch.msu.edu/nwmihort/faxnet.htm

ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE MARCH 1, 2011

Please send any comments or suggestions regarding this site to:
Bill Klein, kleinw@msu.edu

Last Revised: 9-20-11