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Northern Michigan FruitNet 2012 Weekly Update

NW Michigan Horticultural Research Center

Nikki Rothwell District Horticulturist Duke Elsner Agricultural & Regional Viticulture Agent

Bill Klein Farm Mgr, NWMHRS

August 7, 2012

GROWING DEGREE DAY ACCUMULATIONS through August 6th at the NWMHRC

Year	2012	2011	2010	2009	2008	2007	22 yr. Avg.
GDD42	2929	2385	2734	2055	2277	2626	2355.4
GDD50	1970	1576	1784	1224	1453	1742	1512.7

Growth Stages at NWMHRC (August 6, 10:30 a.m.)

Apple: Red Delicious - 66 mm fruit Gala - 58 mm fruit Yellow Delicious - 60 mm fruit Mac - 62 mm Pear: Bartlett: 48 mm fruit Grapes: Green fruit Weather Report

The past weekend weather was hot, and temperatures were up in the high 80s and reached into the 90s on Saturday. However, temperatures dropped at the start of this week and are predicted to be pleasant, in the mid-70s for the rest of the week. At this point in the season, we have accumulated 2930 GDD base 42 and 1971 GDD base 50. Again, the region received little rainfall over this past week. There were isolated thunderstorms on Saturday, August 3rd evening, but rainfall amounts were variable and duration of the rain was short. Soil moisture is extremely low at this time. Additionally, the past few days of warm weather were coupled with high winds, which contributed to the drier than normal conditions. At this time in the season, the NWMHRC has received 16.05" of precipitation since January 1.

Crop Report

Cherry and raspberry harvest is complete at this time. For the few growers that have peaches, harvest is underway but will be extremely short due to the small crop this season. Peach quality is good, and even with dry conditions, size is decent likely due to few fruits per tree. The apple crop continues to look good but could use some rain to get some size to the fruit. Paula Red harvest is anticipated to start next week, and some Spur Mac orchards will also begin harvest, particularly in blocks with little fruit. Wine grapes seem to be coming out the winners so far this season, and although some diseases are now showing up, wine grapes look great.

Pest Report

Cherry

Growers still need to be protecting for cherry leaf spot (CLS) until the end of August. The goal is to keep leaves on through September in order to head into the winter with a good amount of reserves in the trees. Keeping as many leaves on the trees is also important as many trees are under drought stress, and minimizing other stresses is crucial at this time. However, the dry weather has been helpful in keeping this disease at bay. Growers should keep a close eye on the leaf spot model on Enviroweather (www.enviroweather.msu.edu).

We continue to catch cherry fruit flies (CFF), but based on our past work with post-harvest CFF sprays, we are past the window when these insecticide applications would be effective. We have continued to catch spotted wing drosophila (SWD) in cherry orchards. We are moving adult traps into wine grapes as this crop is starting to ripen. Growers that have berry crops, wine grapes, and/or vegetables (tomatoes, peppers, etc.) need to be on the lookout for this pest.

Apple

Apple scab is hard to find in regional orchards, and the dry weather has been helpful in minimizing the impacts of this disease as we approach harvest. However, if we do receive rainfall in the coming weeks, growers will want to be sure to be covered up going into the rain event.

Codling moth (CM) trap counts are low at the NWMHRC, but growers that have a crop of apples still need to be monitoring for this pest as CM larvae will infest marketable fruit. With fewer apples in area orchards, CM will be competing to lay eggs in the reduced number of fruit that is available; therefore, growers need to be sure that fruit is covered at all times to

minimize the risk of CM infestation. **Obliquebanded leafroller** adult catch is low at the NWMHRC, but growers should also be trapping for this pest as they will also impact good marketable apples. There are materials that will control both CM and OBLR in apple, and the use of these combination sprays will minimize costs for control of both of these pests.

Grapes

The recent rains have provided a bit of relief from drought conditions. Shoot growth, foliage condition and berry development all look very good in most vineyards. Many cultivars are showing signs of verasion, about two weeks ahead of our typical timing.

Insect pressure remains fairly light. **Grape berry moth** injury was seen at a few sites during the last week; overall, infestation levels are low. Compared to previous years, the populations of **sphinx moth** larvae are down. **Grape phylloxera** foliar galls are now quite numerous on susceptible cultivars.

Powdery mildew is still hard to find in NW vineyards, although I suspect recent rains and slightly cooler weather may finally allow this disease to progress. It is the time of year that powdery mildew signs and symptoms may rapidly appear on berries that were infected during the bloom and immediate post-bloom period.

NORTHWEST MICHIGAN HORTICULTURLAL RESEARCH CENTER ANNUAL OPEN HOUSE

The Northwest Michigan Horticultural Research Center Open House will be held **Thursday, August 23, 2012**. Concurrent educational sessions for tree fruit and wine grapes will begin at 3:00 p.m.

Featured speakers for the tree fruit educational session will be Dr. George Sundin, Dept. of Plant Pathology, MSU, who will give an update on fungicide and bactericide trials conducted at NWMHRC in cherries and apples. Drs. Rufus Isaacs and Doug Landis will be on hand to talk about the importance of pollinators, native plants, and how to enhance adjacent plantings to bolster pollination in orchards. They will be joined by beekeepers and pollination specialists for a roundtable discussion on how growers can improve pollination in apple and cherry orchards. For those interested in wine grapes, Drs. Paolo Sabbatini, Dept. of Horticulture, MSU and Duke Elsner will present the latest information on pruning and training wine grapes in a season that has been terrific for growing grapes.

Here is a link to the schedule.

The educational sessions are *free* and open to all who would like to attend. The afternoon sessions will conclude with a social hour and local wine tasting to begin at 5:15. Dinner will follow catered by *Ethnic Garden Catering* and will feature locally produced foods; dinner cost is \$15 per person. To reserve tickets for the dinner, call the Leelanau County Extension office at 231-256-9888 or email <u>msue45@msu.edu</u>. Reservation deadline is **August 22**.

The Northwest Station Open House is hosted by AgBioResearch, Michigan State University Extension, the Leelanau Horticultural Society, the Northwest Michigan Horticultural Research Foundation, and Parallel 45.

For more information, contact the NW Michigan Horticultural Research Center at 231-946-1510 or Leelanau County MSU Extension.

SELL YOUR WINE GRAPES ACROSS THE MIDWEST WITH MARKETMAKER

The online tool MarketMaker can aid in selling wine grapes in the expanding national winery market.

Posted on July 26, 2012, MSUE News, by Joanne Davidhizar, Michigan State University Extension

With the growth of the wine industry in Michigan and surrounding states, quality <u>wine grapes</u> are in high demand. Evidence of this is the approximately 100 grape producers and winery operators who looked to increase their skills at the <u>Michigan</u> <u>State University (MSU) Southwest Michigan Research and Extension Center</u> Viticulture Field Days held July 25 in Benton Harbor, Mich.

The online tool, <u>MarketMarker</u>, can help growers link with winery operators and vice-versa, in Michigan and 20 other states. MarketMaker is a web-based resource that provides links between producers, winery owners, processors, wholesalers, retailers, food service providers and end consumers within the food supply chain. The site is available to all and is free.

The website provides a number of features for those looking to sell products. Users can use the map and distance tool to search for users of particular crops within a geographical area. A search can be broadened further by using the drop down menu to access MarketMaker web sites of other states. For example, front and center on the <u>MarketMaker website</u>, one can enter ZIP code 49079 for Paw Paw, and search wineries making red wine within a 150-mile radius turning up 13 results.

Both sellers and buyers can easily create profiles with location, contact information and grape varieties to market for the current and future growing seasons. Many more wine grape grower profiles are needed on MarketMaker to meet current and future demand.

For further detail on food, agriculture, bio economy and natural resources business development, contact the <u>MSU Product</u> <u>Center</u> at 517-432-8750.

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

MEDIATE DISASTER-RELATED FINANCIAL ISSUES - DON'T PROCRASTINATE

Farmers who have experienced crop losses through drought or freeze may benefit by utilizing mediation services if they cannot meet financial obligations.

Posted on August 3, 2012, MSU-E News, by Joanne Davidhizar, Michigan State University Extension, Michigan State University Product Center

With so many Michigan producers anticipating crop losses during this season due to drought and freeze, revenues may fall short for loan and business expenses. One approach is to communicate with your lender to explore options for repayment through the Michigan Agricultural Mediation Program.

The <u>Michigan Agricultural Mediation Program</u> seeks to resolve issues between parties on a voluntary basis without cost to participants. The program is available statewide through established dispute resolution centers.

During a recent presentation to farmers at <u>Michigan State University's Ag Expo</u>, David Gruber, Michigan Agricultural Mediation Program director discussed how the mediation process could look at difficult loan repayment situations brought on by poor weather conditions or other factors. "As some producers raise prospects for challenges with crop insurance, loans or credit disputes, they can contact the Michigan Agricultural Mediation Program dispute resolution centers. Mediation affords everyone the opportunity to be on the same page, share the same information and go from there. It's important to address these issues early before parties set hard and fast positions that they're unwilling to change."

Requests for mediation can be made online at the <u>Michigan Agricultural Mediation Program</u> website, by calling the Dispute Resolution Center of West Michigan office at 616-774-0121, or the Dispute Resolution Center for Eastern Michigan and the Upper Peninsula at 989-672-4044, or by mailing in the form from the Michigan Agriculture Mediation Program brochure available in most county <u>MSU Extension offices</u>.

Additional information

MSU Extension's Drought Resources

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

Hop workshop scheduled for August 21 at Southwest Michigan Research and Education Center

Learn what is needed to set up a hop yard, select plants and start growing hops.

Posted on July 6, 2012, MSU-E News, by Diane Brown, Michigan State University Extension

Hops are a fast-growing and fascinating plant used for flavoring and preserving beer and ales, and in the manufacture of pharmaceuticals and cosmetics. Scheduled from 9 a.m. to 3 p.m. on August 21 at the <u>Southwest Michigan Research and</u> <u>Education Center</u>, this workshop will teach you about the history and uses of hops, what's needed to set up a hop yard, requirements for growing, fertilizing and irrigating, common insect and disease problems and their management, hop processing and marketing opportunities for hops. Choosing hop varieties, installing plants versus rhizomes and specific pest management topics will be discussed in detail.

A resource list for materials you will need will be included in the handouts given at the workshop. Representatives from local microbreweries will be on hand to discuss hop characteristics and what they contribute to a brew (bittering, aroma, flavor), as well as which varieties they use.

If you have been considering starting a commercial hop yard or are a serious, amateur grower, this workshop will be a great introduction to get you started. Registration is \$35 and includes lunch. Please register by August 14 so we can have an accurate count for lunch.

Contact Jamie at the <u>Berrien County Extension office</u> for more information or to register at 1-269-944-4126. You can also fill out and return <u>this form</u> with a check payable to Michigan State University Extension. Please mail forms to Berrien County MSUE, 1737 Hillandale Rd., Benton Harbor, MI 49022.

The <u>Southwest Research and Extension Center</u> is located at 1791 Hillandale Rd., Benton Harbor, Mich. (<u>view map</u>). This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

SOIL ACADEMY 2012

If interested in knowing more about soil science including soil fertility and nutrient management, then you will want to attend this year's Soil Academy. Beginning farmers, MAEAP technicians, and private consultants are encouraged to attend. The day-long academy will be held Wednesday, **September 5**, from **9:30 a.m. – 5:00** p.m. the Mason Technology Center in Mason, MI. For more information and/or to register, visit the Soil Academy website http://fieldcrop.msu.edu/uploads/files/soilacademy2012.pdf or contact George Silva at 517-543-2310 or silvag@msu.edu

YOU CAN HELP YOUR FARM WORKERS KEEP HARVEST CONTAINERS FOR PRODUCE

Getting trained harvest workers to comply consistently with food safety practices can be significantly enhanced by making it easy for them to do so. Here are ways growers can influence harvest workers to keep personal effects out of harvest containers.

Posted on August 6, 2012, MSU-E News, by Phil Tocco, Michigan State University Extension

Harvest workers can be a produce operation's greatest asset or its greatest liability from a food safety perspective. Everything they do, no matter how inconsequential, can either reduce or contribute to the safety of the food you grow. One area where you as a grower can help them perform at their best is keeping harvest containers free of personal belongings.

The best way to encourage harvest workers to keep personal belongings out of harvest containers is to provide a place to

store them. In packing operations, this can be built onto a wall in the break room. In field situations, this is somewhat more difficult, but not impossible. Often the back of a flatbed can be fabricated into a "portable break area," incorporating a hand-wash station, drinking water and belonging storage.

If you have specific questions about harvest worker training for food safety or have difficulty tailoring GAPs to your farm, contact the <u>Agrifood Safety Work Group</u> at <u>gaps@msu.edu</u> or 517-788-4292. To obtain a guidance document on worker policies, ask for guidance document AFSM011-01.

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

REGISTER YOUR VISITORS TO ENSURE FOOD SAFETY COMPLIANCE

When maintaining a farm with food safety in mind, you need to know who's around the produce throughout the season. Having a well-written policy in your food safety manual is the first step to this knowledge.

Posted on August 6, 2012, MSU-E News, by Phil Tocco, Michigan State University Extension

As important as visitors are when they purchase produce, they can pose problems when they enter a produce field, particularly as it approaches harvest. Having a visitor policy helps ensure that you know who has been around the food you harvest until it leaves your care. In addition, it helps inform those who will be around your produce how to keep it safe for those who will ultimately eat it.

When writing a visitor policy there are a number of questions you need to answer. Who is required to sign in? Specifying that farm workers and the grower are exempt from signing in may be a good policy. If you use the sign-in sheet to document hours worked by farm workers, it may not be such a good policy. You may also want to exempt or have a single sign-in for any crop scouts that make regular trips into the field that could be trained in food safety much like the farm workers.

How long does an individual need to be on the farm in order to sign in? If you have a farm stand or retail establishment, having a policy of all visitors regardless of the length of visit doesn't make sense.

Remember that you need to outline a policy that you can consistently deliver on and document compliance against. If the policy is too restrictive, you may not be able to follow through with it. Always keep the policy as nonspecific as possible to allow for the best level of compliance.

If you have specific questions about writing a visitor policy or have difficulty tailoring GAPs to your farm, contact the <u>Agrifood Safety Work Group</u> at <u>gaps@msu.edu</u> or 517-788-4292. To obtain a guidance document on draft language for a visitor policy for a food safety manual, ask for guidance document AFSM006-01.

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

WEBSITES OF INTEREST

CIAB Weekly Harvest Report Week 7

Insect and disease predictive information is available at:

http://www.enviroweather.msu.edu/home.asp

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://news.msue.msu.edu/news/category/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, 2012

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

Last Revised: 8-8-12

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Bill Klein Farm Mgr, NWMHRS

GROWING DEGREE DAY ACCUMULATIONS through August 13th at the NWMHRC

Year	2012	2011	2010	2009	2008	2007	22 yr. Avg.
GDD42	3113	2580	2968	2242	2452	2851	2547.6
GDD50	2098	1715	1962	1355	1572	1873	1648.9

Grape Report

August 14, 2012

Most cultivars are now at verasion, some are coloring and softening very quickly. There is already bird damage and insects like paper wasps and bees visiting ripening fruit of some very early cultivars at the research station. I have seen vineyards with a good deal of marginal leaf reddening at places in the canopy where shading foliage had been removed by hedging. In several cases the most affected leaves were also curled or cupped downward, most likely from past potato leafhopper feeding injury. This may be a sunburn effect on leaves that were suddenly exposed to bright sun and heat following hedging.

Managed vines are still in great shape in all the places examined this week, with very little insect activity other than some defoliation by hornworms. Potato leafhoppers and whiteflies were common in a few sites. This has been a good year for stippling species of leafhoppers on wild grapevines in woodlots; where cultivated vines are close by there are cases of minor stippling injury on the cultivated vines. This injury is of no concern.

Powdery mildew is still hard to find in most NW vineyards. At this time, good canopy management and leaf pulling in the fruiting zone is equally as important as fungicide spray applications. With the pace of fruit ripening this season, growers really need to get the leaf pulling done soon so that bird netting can be deployed on time.

NORTHWEST MICHIGAN HORTICULTURLAL RESEARCH CENTER ANNUAL OPEN HOUSE

The Northwest Michigan Horticultural Research Center Open House will be held Thursday, August 23, 2012. Concurrent educational sessions for tree fruit and wine grapes will begin at 3:00 p.m.

Featured speakers for the tree fruit educational session will be Dr. George Sundin, Dept. of Plant Pathology, MSU, who will give an update on fungicide and bactericide trials conducted at NWMHRC in cherries and apples. Drs. Rufus Isaacs and Doug Landis will be on hand to talk about the importance of pollinators, native plants, and how to enhance adjacent plantings to bolster pollination in orchards. They will be joined by beekeepers and pollination specialists for a roundtable discussion on how growers can improve pollination in apple and cherry orchards. For those interested in wine grapes, Drs. Paolo Sabbatini, Dept. of Horticulture, MSU and Duke Elsner will present the latest information on pruning and training wine grapes in a season that has been terrific for growing grapes. The educational sessions are free and open to all who would like to attend.

Here is a link to the schedule.

The afternoon sessions will conclude with a social hour and local wine tasting to begin at 5:15. Dinner will follow catered by Ethnic Garden Catering and will feature locally produced foods; dinner cost is \$15 per person. To reserve tickets for the dinner, call the Leelanau County Extension office at 231-256-9888 or email msue45@msu.edu. Reservation deadline is August 22.

The Northwest Station Open House is hosted by AgBioResearch, Michigan State University Extension, the Leelanau Horticultural Society, the Northwest Michigan Horticultural Research Foundation, and Parallel 45.

For more information, contact the NW Michigan Horticultural Research Center at 231-946-1510 or Leelanau County MSU Extension.

Register by August 23rd for MSU Extension Master Gardener Volunteer Training Program

If you have a strong interest in gardening and enjoy helping others, you are invited to apply to become a Michigan State University Extension Master Gardener Volunteer.

ABOUT

The Leelanau County MSU Extension is currently accepting applications for the 45+ hour educational program, which will begin August 30th and continue every Thursday (except for Thanksgiving Day) through November 29th. All classes will be conducted from 4:00-8:00 PM at the MSU Horticultural Research Center (6686 South Center Highway/County Road 633), in Leelanau County. The cost of the program is \$300, which covers the cost of an 800 page training manual, speakers and facilities. Some financial assistance is available.

The program offers an opportunity for interested individuals to increase their knowledge and understanding of such varied horticultural topics as best practices for growing flowers, vegetables, and fruit; caring for lawns and woody ornamentals; house plant care; diagnosing plant diseases; pest identification and control, and much more. A major focus of the program is the use of environmentally sound practices. Instructors are MSU Extension Horticultural Educators from around Michigan.

Instructors for MSUE Master Gardener Training, Fall 2012, Traverse City:

- Plant Science, Rebecca Finneran, MSU Extension Educator, Grand Rapids
- Soil Science, Steve Fouch, Retired MSU Extension Educator, Interlochen
- Integrated Pest Management, Bob Bricault, MSU Extension Educator, Ann Arbor
- Vegetable Culture, Hal Hudson, MSU Extension Educator, Caro
- Water Quality, Roberta Dow MSU Extension Educator, Traverse City
- Lawn Care, Kevin Frank, via learning module, East Lansing
- Small Fruit, Gary Heilg, MSU Extension Educator, Mason
- Flower Gardening, Rebecca Finneran, MSU Extension Educator, Grand Rapids
- Woody Ornamentals, Mary Wilson, MSU Extension Educator, Novi
- Household Pests, Beth Clawson, MSU Extension Educator, Paw Paw
- Diagnostics, Duke Elsner, MSU Extension Educator, Traverse City
- Backyard Tree Fruit, Gary Heilig, MSU Extension Educator, Mason
- Indoor Plants, Gretchen Voyle, MSU Extension Educator, Howell

To become a MSU Extension Master Gardener Volunteer, individuals attend the training sessions, and then volunteer 40 hours of horticultural service to the community. Examples of volunteer activities include assisting with garden projects at area schools, the Traverse Area District Library, Boardman River Nature Center, Grow Benzie, and the Leelanau Community Garden.

Individuals who have additional questions may contact Pam Bardenhagen, Master Gardener Volunteer Coordinator, at the Leelanau MSU Extension office, at 231-256-8323, or email <u>schmi345@anr.msu.edu</u>. Applications for the program can be obtained from the MSU Extension Office (8527 E. Government Center Drive, Suttons Bay, MI), or downloaded from the following website: <u>www.msue.msu.edu/leelanau</u>. The **registration deadline is August 23rd**.

WEBSITES OF INTEREST

CIAB Weekly Harvest Report Week 8

Insect and disease predictive information is available at: http://www.enviroweather.msu.edu/home.asp

60 Hour Forecast

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

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Fruit CAT Alert Reports

http://news.msue.msu.edu/news/category/fruit

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ACTUAL AND PREDICTED DEGREE-DAY

ACCUMULATIONS SINCE MARCH 1, 2012

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

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Nikki Rothwell District Horticulturist Duke Elsner Agricultural & Regional Viticulture Agent

Bill Klein Farm Mgr, NWMHRS

August 21, 2012

GROWING DEGREE DAY ACCUMULATIONS through August 21st at the NWMHRC

Year	2012	2011	2010	2009	2008	2007	22 yr. Avg.
GDD42	3278	2783	3168	2459	2645	3021	2732.0
GDD50	2207	1862	2106	1516	1709	2010	1777.2

Growth Stages at NWMHRC (August 20, 1:30 p.m.)

Apple: Red Delicious - 68 mm fruit Gala - 61 mm fruit Yellow Delicious - 68 mm fruit Mac - 64 mm Pear: Bartlett: 54 mm fruit Grapes: Veraison Weather Report

Both day and night time temperatures have cooled considerably across the northwest in the past weeks. Daytime temperatures reach into the low 70s and drop back into the mid-50s at night. Much of the past three days have also been breezy. At this point in the season, we have accumulated 3278 GDD base 42 and 2207 GDD base 50. These accumulations are still well ahead of our 20+ year averages: 2732G GDD base 42 and 1777 GDD base 50. We have only had one significant rainfall in August on the 16th, and the NWMHRC received 0.41" of rain. Conditions are extremely dry in the northwest, and we are in much need of a good rain. At this time in the season, the NWMHRC has received 16.49" of precipitation since January 1.

Crop Report

The apple crop continues to look good but could use some rain to get some size to the fruit. Many of the harvested fruits have been on the small side. Paula Red harvest is underway, and local Gingergolds have also hit the farmer's markets and grocery stores. We did some limited maturity sampling, and Galas, Honeycrisp, and McInthosh are still a ways off before harvest can be expected. Again, wine grape quality looks terrific so far this season.

Pest Report

Cherry

At this point in the season, particularly with the lack of moisture across the region, growers can end their cherry leaf spot (CLS) sprays. If leaves have been protected up through this time period, the likelihood of keeping leaves on through September is good, particularly if the dry weather continues. The goal is to keep leaves on through September in order to head into the winter with a good amount of reserves in the trees. Keeping as many leaves on the trees is also important as many trees are under drought stress, and minimizing other stresses is crucial at this time.

All insect populations have dropped off this past week. As there is little to no fruit left on the trees, the potential for infestation is very low. We have continued to catch spotted wing drosophila (SWD) in cherry orchards, and we are now monitoring SWD in wine grapes as this crop has yet to be harvested. The adult SWD populations in both cherry and wine grapes are increasing, and these increases follow the statewide trend of catching these flies later in the season, particularly when we have cool temperatures.

Apple

Apple scab is hard to find in regional orchards, and the dry weather has been helpful in minimizing the impacts of this disease as we approach harvest. However, if we do receive rainfall in the coming weeks, growers will want to be sure to be covered up going into the rain event.

Again, all apple insect populations are down in our traps this week. Droughty conditions may be reducing insect numbers, but growers need to continue to trap for pests that can infest fruit as it ripens: codling moth, obliquebanded leafroller, and apple maggot. Early apple harvest has begun across the region for those growers with a crop.

Fruit development is coming along nicely, with some good color development thanks to cooler evening temperatures.

There is already bird damage and insects like paper wasps and bees visiting ripening fruit of some very early cultivars. I have seen vineyards with a good deal of marginal leaf reddening at places in the canopy where shading foliage had been removed by hedging. In several cases the most affected leaves were also curled or cupped downward, most likely from past **potato leafhoppe**r feeding injury. This may be a sunburn effect on leaves that were suddenly exposed to bright sun and heat following hedging.

Managed vines are still in great shape in all the places examined this week. **Grape berry moth** infestations are low in most sites. Defoliation by **hornworms** is nearly over for the season. **Potato leafhoppers** and **whiteflies** were common in a few sites. This has been a good year for stippling species of leafhoppers on wild grapevines in woodlots; where cultivated vines are close by there are cases of minor stippling injury on the cultivated vines. This injury is of no concern.

Adults of **spotted wing drosophila** (SWD) were trapped near vineyards on Old Mission Peninsula during the past week. This is a potential pest of grapes, but the importance of this insect in our area is yet to be determined. Stay tuned to the FruitNet or the Michigan Grape & Wine Industry Newsletter for further developments on SWD.

Powdery mildew is still hard to find in most NW vineyards. At this time, good canopy management and leaf pulling in the fruiting zone is equally as important as fungicide spray applications. With the pace of fruit ripening this season, growers really need to get the leaf pulling done soon so that bird netting can be deployed on time.

Northwest Michigan Horticultural Research Center Annual Open House August 23, 2012

SCHEDULE

Concurrent Sessions

3:00 - 4:00 p.m.	Update on Fungicide Efficacy for Cherry Leaf Spot Dr. George Sundin, Dept of Plant Pathology, MSU						
4:00 - 4:45	Supporting Bees & Other Beneficials with Wildflower Plantings Drs. Rufus Isaacs & Doug Landis, Dept of Entomology, MSU						
4:45 - 5:15	Financial Planning for Your Fruit Farm - The Challenges of 2012 and 2013! Dennis Stein, Farm Business Management Educator, MSU-E Stan Moore, NW Agriculture Resource Management Educator, MSU-E						
3:00 - 5:00	Cultivar Trial Update						
Dr. Paolo Sabbatini, Dept of Horticulture, MSU Dr. Duke Elsner, Small Fruit Educator, MSU-E							

5:15 – 6:15 Social Hour

6:15 - Dinner and Leelanau Horticultural Society Annual Meeting

The Northwest Center Open House is hosted by AgBioResearch, Michigan State University Extension, the Leelanau Horticultural Society, and the Northwest Michigan Horticultural Research Foundation. The education sessions are *free* and open to all who would like to attend. Tickets for the social hour and dinner are \$15 per person and can be reserved by calling the Leelanau County Extension office at 231-256-9888 by **August 22** or purchased at the door. This year, dinner will be provided by *Ethnic Garden Catering* and will feature local food from the region.

BIRD DAMAGE TO FRUIT CROPS RESEARCH PROJECT

If you grow 'honeycrisp' apples and/or Pinot Noir grapes and are willing to let MSU researchers visit your farm to do bird counts and check fruit for damage, please contact Catherine Lindell, 517-884-1241, or <u>lindellc@msu.edu</u>. This is a USDA-funded project with the ultimate goal of developing best practices to deter bird from fruit. Thank you.

ENTREPRENEURIAL FARM FAMILIES SHARE SUCCESS STORIES SEPT. 11-12 IN TRAVERSE CITY, MICH.

A lot can be learned from farm families who have an entrepreneurial spirit and a successful value added venture. Many share common traits that enable them to be successful, yet each has their own unique story.

Posted on August 10, 2012, MSUE News, by Dan Rossman, Michigan State University Extension

Many farm families have dreams of value added enterprises that might be feasible to launch as part of their farm operation. A few step out and turn their dreams into reality. If you are considering taking that step, it is wise to listen to others who have successfully started new value added enterprises. It is also important to analyze your resources, abilities, passion, time and knowledge.

There are numerous unique stories of how farm families had to solve a problem or saw an opportunity and took action. That action led them on exciting entrepreneurial journeys that they usually are willing to share. Take some time to visit with successful value added farm operators. Find out their motivation, the barriers they had to overcome, the amount of time and effort it took, the marketing opportunities and challenges they encountered and how it has affected their overall operation and family. If you don't know any farmers involved in value added ventures, or even if you do and want to learn more, you have an opportunity to visit successful practitioners and hear their stories on a two-day entrepreneurial farm tour to northwest Michigan near Traverse City, Mich. The tour will take place September 11-12 and will highlight farms with hoophouses, CSAs, farm markets, dairy processing, agri-entertainment, fruit processing, food hubs, vineyards, off-the-grid homestead, pastured beef, a fiber mill and much more. Space is limited, so contact <u>Dan Rossman</u> at the <u>Gratiot County MSU Extension</u> office at 989-875-5233 to find out the cost and more details about this tour, as well as register for the tour.

Do you have an idea currently that you want to explore to add more profit to your farm operation? Whether you want to add value or a new enterprise, take note that the <u>MSU Product Center</u> has innovation counselors that are trained and available to assist you to get started. To start the process, go to the <u>MSU Product Center website</u> and fill out an application for assistance or call any of the staff or counselors that are listed there. You can call the <u>MSU Product Center</u> directly at 517-432-8750.

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

MICHIGAN AGRICULTURAL DISASTER LOAN PROGRAM OF 2012 INCLUDES AG BUSINESSES

The Michigan Disaster Loan Program, while being promoted as assistance for fruit growers, includes processors and agricultural retailers.

Posted on August 8, 2012, MSU-E News, by Curtis Talley Jr., Michigan State University Extension

The <u>Michigan Agricultural Disaster Loan Program of 2012 website</u> includes emergency loan funding for agricultural processors and retailers. Agricultural processors and agricultural retailers are experiencing income reductions due to a lack of raw products to process or reduced sales because farmer's cash flows have been reduced due to freezes and drought. The maximum loan amount is the lesser of \$800,000 per facility or \$1,000,000 for those with multiple locations.

This is not a loan guarantee program. It is for "qualified" participants. Each lender is taking the credit risk and will use their own underwriting standards to determine each applicant's credit worthiness. Some of the terms and conditions of the program are:

One percent interest or the rate or the five year U.S. Treasury note plus .25 percent (On Aug. 6, 2012 the Treasury note rate was .59 percent).

These are "qualified" loans meaning they must be collateralized.

Five year term (interest only the first year; the principal is paid over last four years, or 25 percent per year). Loans have to be entered into by March 31, 2013.

An agricultural processor is defined as "A person that is engaged and intending to remain engaged in this state in an agricultural business of buying, exchanging, processing, storing or selling farm produce that suffered a 50 percent or greater loss in volume of one commodity when compared with the average volume of that commodity that business handled in the prior three years".

A retailer is defined as a "person in the business of making retail sales directly to farmers with 75 percent or more of the person's gross retail sales volume exempted from sales tax under section 4a (1) (e) of the general sales tax act that suffered a 50 percent or greater reduction in gross retail sales volume subject to exemption under section 4 (a) (1) (e) of the general sales tax act ... when compared with the person's average retail sales volume subject to that exemption in the prior three years". The reduction in sales must be directly attributed to an agricultural disaster recognized by the governor occurring after Jan. 1, 2012.

There are many program details yet to be determined. The application form will not be available until the legislature actually appropriates the \$15,000,000 for the program this fall. Potential participants are asked to be patient until all of the details of the program are made available.

For more information you can contact <u>Curtis Talley Jr</u>., District Farm Management Educator at 231-873-2129. Additional Information

MSU Extension's Fruit Freeze Resources

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

WEBSITES OF INTEREST

CIAB Weekly Harvest Report Week 9

Insect and disease predictive information is available at: http://www.enviroweather.msu.edu/home.asp

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://news.msue.msu.edu/news/category/fruit

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



Grand Traverse County Resource Recovery Department 2650 LaFranier Road Traverse City Michigan 49686

www.RecycleSmart.info RecycleSmart Hotline 941.5555



Newsworthy!

FOR IMMEDIATE RELEASE:

Date: August, 8 2012 Contact: Kim Elliott, Grand Traverse County--Resource Recovery Marketing/Education Specialist 231.941.5555, kelliott@grandtraverse.org

HOUSEHOLD HAZARDOUS WASTE & PESTICIDE COLLECTION TO BE HELD IN KINGSLEY, MI.

Traverse City, Mich

GRAND TRAVERSE COUNTY RESOURCE RECOVERY DEPARTMENT (RecycleSmart) will conduct a Household Hazardous Waste & Pesticide collection on Saturday August 25, 2012 from 9:00 am to 2:00 pm. Event will be held at the Grand Traverse County Road Commission building at 1471 E. M-113, <u>Kingsley, MI</u>.

The online scheduling system is a convenient and the recommended tool to secure an appointment. <u>An appointment is</u> required and can be made at www.RecycleSmart.info or by calling the RecycleSmart Hotline at 941.5555.

This service is provided to Grand Traverse County residents at no cost, (up to 150 lbs., \$1.30 lb. thereafter) with the exception of electronics, which will be charged .38¢ /lb. Accepted material includes oil based paints (latex paint is not accepted), cleaning products, pesticides, mercury, moth balls, pool chemicals and more..

Residents are encourages to visit the Take It Back recycling program website link at www.RecycleSmart.info to learn where to recycle computers, televisions and other electronics, motor oil, vegetable oil, cfl bulbs, and over 100 additional products with local businesses.

For more information visit www.RecycleSmart.info are call the RecycleSmart Hotline at 941.5555

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PREDICTED DEGREE-DAY ACCUMULATIONS SINCE MARCH 1, 2012

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

Last Revised: 8-21-12

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Northern Michigan FruitNet 2012 Weekly Update NW Michigan Horticultural Research Center

<u>Nikki Rothwell</u> District Horticulturist <u>Duke Elsner</u> Agricultural & Regional Viticulture Agent <u>Bill Klein</u> Farm Mgr, NWMHRS

August 28, 2012 Weather Report

Temperatures across northwest Michigan have been seasonable at the start of the work week following an extremely hot weekend. On Saturday, August 25, the MAWN station at the NWMHRC recorded a daytime high temperature of 94.6 degree F and on Sunday, the daytime high was 88.5 degrees. At this point in the season, we have accumulated 3520 GDD base 42 and 2383 GDD base 50. We are a few weeks ahead of our `normal' accumulations. The dry conditions are persisting, and no rain is in the forecast. Conditions are extremely dry in the northwest, and we are in much need of a good rain.

Crop Report

Although the apple crop is smaller in northwest Michigan than in typical years, growers with apples are pleased with the quality of the fruit. Growers with irrigation systems are running them often to both help size the fruit and to reduce the stress on the trees from the dry conditions. Gingergold harvest is underway. Some growers are select picking Galas, but our limited maturity sampling shows that starch indexes are still quite low, and firmness is still high. Color is improving. McIntosh are still a ways off before harvest can be expected, but again, the color on this variety has improved in the past week. Winegrape quality continues to look good, but the droughty conditions are taking a toll on vines without irrigation. Growers with vines in water stress are dropping fruit.

Pest Report

Cherry

We have continued to catch **spotted wing drosophila (SWD**) in cherry orchards, and we are now monitoring SWD in winegrapes as this crop has yet to be harvested. The adult SWD populations in both cherry and winegrapes are increasing, and these increases follow the statewide trend of catching these flies later in the season, particularly when we have cool temperatures.

Apple

Apple scab is hard to find in regional orchards, and the dry weather has been helpful in minimizing the impacts of this disease as we approach harvest. Again, all apple insect populations are down in our traps this week. Droughty conditions may be reducing insect numbers, but growers need to continue to trap for pests that can infest fruit as it ripens: codling moth, obliquebanded leafroller, and apple maggot. Early apple harvest has begun across the region for those growers with a crop.

BANISH BUNCH ROTS IN GRAPES

Botrytis bunch rot and sour rot can become problematic when there is a lot of rain in the weeks before harvest. There still may be some benefit to leaf pulling to expose the clusters to sunlight and airflow and improve fungicide penetration.

Posted on August 21, 2012, MSU-E News, by Annemiek Schilder, Michigan State University Extension, Department of Plant, Soil and Microbial Sciences

There are several late-season bunch rots that can pop up in wine grapes in Michigan if and when the rains return. The most common of these is **Botrytis bunch rot** caused by *Botrytis cinerea*, the same fungus that causes gray mold in strawberries. Tight-clustered varieties such as Pinot gris, Pinot noir, Chardonnay, Aurore and Vignoles are particularly susceptible. Another, more sporadic disease is **sour rot**, which is a wet rot that smells distinctly of vinegar due to the presence of acetic acid bacteria. Often, other organisms are also involved in sour rot, including various yeasts and fungi. Damage can be extensive because infections that begin in a single berry can rapidly spread to adjacent berries and destroy most or all of a cluster.

While under cool, dry conditions, Botrytis bunch rot sometimes can be beneficial for wine quality ("noble rot"), but sour rot is always undesirable. Bunch rot often begins in one or a few berries, usually at the site of an injury or a quiescent flower infection, and then spreads rapidly throughout the cluster.

Factors that favor disease development

ABOUT

Injury to the berries and environmental conditions are the primary factors influencing bunch rot development. As berries ripen and sugar content increases, injured fruit becomes increasingly susceptible to bunch rot pathogens. Other than *Botrytis cinerea*, which can directly penetrate intact berry skins under conditions of prolonged moisture or very high humidity, most other bunch rot organisms are opportunistic pathogens that live on plant surfaces and can only cause infections if they gain entry to the berry through wounds. Examples are injuries from berry splitting caused by growth pressure in tight-clustered grape varieties as well as insect, bird and hail injury.

Entry holes created by <u>grape berry moth</u> larvae are a common cause of bunch rot as well. In addition, infection by the powdery mildew fungus creates small, dead spots on the berry skin, which can lead to cracking of the berry and possible invasion by bunch rot pathogens. Recent studies have shown that these microbes may also be able to enter openings or cracks between the berry stem and berry. Fruit flies that are attracted to rotting or overripe fruit may also play a role in development and spread of sour rot.

In addition, wet weather during fruit ripening also favors bunch rot by causing expansion and splitting of berries as they take up water and providing moisture for growth of fungi and bacteria. Dense canopies and high humidity can also enhance conditions for bunch rot development.

Management strategies

Promoting good air circulation and sunlight exposure within the grapevine canopy also reduces the risk of bunch rot, such as by leaf pulling in the fruit zone, shoot positioning, shoot thinning and hedging. Limit excessive vegetative growth by balance-pruning and avoiding excess nitrogen fertilization.

For sour rot as well as Botrytis bunch rot control, **it is not too late to pull leaves to expose the cluster to sunlight and airflow.**This is, indeed, one of the best control tactics. Avoid excessive leaf pulling, as berries may suffer from sun scald when suddenly exposed to strong sunlight and high temperatures. Sun scalding is usually restricted to the sides of the berries exposed to the sun and will appear like browning and collapsing (flattening) of the affected berry surface and underlying tissues. Sun-scalded berries may dry up in dry weather, but may also split at the site of the injury after rains occur.

There are currently numerous fungicides available for control of Botrytis bunch rot, while few aid in sour rot control. Sour rot is best controlled by leaf pulling and application of Serenade is complementary. Make sure to alternate fungicides with different modes of action to avoid fungicide resistance development.

Elevate (fenhexamid; Hydroxyanilides; locally systemic; 0-day PHI): good to excellent preventive and limited post-infection activity.

Endura (boscalid; Carboxamides; systemic; 14-day PHI): good to excellent preventive and post-infection activity. Use at 8-oz rate for Botrytis control.

Inspire Super (difenoconazole + cyprodinil; Sterol inhibitors and analinopirimidines; systemic; 14-day PHI): it is mainly the cyprodinil component that provides Botrytis control: preventive and post-infection activity. Good to excellent preventive and post-infection activity.

Luna Experience (fluopyram + tebuconazole; pyridinyl ethyl-benzamides + sterol inhibitors; systemic; 14-day PHI, 10-day REI for leaf pulling, trying and training in wine grapes): good to excellent preventive and post-infection activity. Luna Privilege (fluopyram; pyridinyl ethyl-benzamides; systemic; 7-day PHI, 10-day REI for leaf pulling, trying and training in

Luna Privilege (fluopyram; pyridinyl ethyl-benzamides; systemic; 7-day PHI, 10-day REI for leaf pulling, trying and training in wine grapes): good to excellent preventive and post-infection activity.

Pristine (pyraclostrobin + boscalid; Strobilurins: systemic; 14-day PHI): good preventive and post-infection activity, but only at the high rate (18.5-23 oz acre).

Rovral (iprodione; Dicarboximides; locally systemic; 7-day PHI): moderate to good preventive and limited post-infection activity; activity is improved by addition of oil or non-ionic spray adjuvant. Some vineyards may have resistant strains if Rovral was used a lot in the past.

Scala (pyrimethanil; Analinopyrimidines; systemic; 7-day PHI): good to excellent preventive and post-infection activity. **Serenade** (*Bacillus subtilis*; Biological control agent; protectant; 0-day PHI): fair to moderate preventive activity. Organic formulation can be used in organic vineyards.

Switch (cyprodinil and fludioxonil; Analinopirimidines and phenylpyrroles; systemic; 14-day PHI): provides good Botrytis control; preventive and post-infection activity.

Topsin M (thiophanate methyl; Benzimidazoles; systemic; 14-day PHI): good preventive and post-infection activity. **Vangard** (cyprodinil; Anilinopyrimidines; systemic; 7-day PHI): good to excellent preventive and post-infection activity. *Dr. Schilder's work is funded in part by* <u>MSU's AqBioResearch</u>.

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

FOURTH GENERATION GRAPE BERRYMOTH IS COMING TO SOUTHWEST MICHIGAN

The long, hot 2012 season provided sufficient heat accumulation for fourth generation grape berry moth before harvest in southwest Michigan. Grape growers across Michigan should be aware of this potential as they make management decisions before harvest.

Posted on August 21, 2012, MSU-E News, by Rufus Isaacs, Michigan State University Extension, Department of Entomology

The MSU Enviro-weather <u>grape berry moth model</u> predicts that egg laying by the fourth generation of grape berry moth will start at 2,430 growing degree days after wild grape bloom, and this point in the season will be reached this weekend (August 25-26) or early next week in Berrien County and Van Buren County vineyards. For the Fennville, Mich., region, this point is still more than a week away. In the Traverse City, Mich., area, the model predicts that the third generation has only recently started, and so a fourth generation is unlikely before harvest.

This variation around the state emphasizes the importance of tracking pest development and responding to the situation that develops each season, and the <u>grape berry moth degree day model</u> can help with this. For vineyard managers in southern Michigan with a crop to harvest in 2012, late-season berry moth control is something to consider as harvest approaches, and management can be focused in areas of the farm where this expense is warranted.

Why is this happening?

Grape berry moth has flexibility in its life cycle that allows it to adapt to changing environmental conditions. The current hot year provides a good example of how it can make use of warmer conditions to fit an additional generation into a growing season. This is possible because in southwest Michigan, the third generation egg laying started in late July. When this happens, the eggs are laid when the days are still long, and this provides a signal that the larvae can develop through to a moth and continue another generation before it will get too cold. This is the fourth generation we predict will start over the next week in southwest Michigan.

If eggs of the third generation are laid in August, as happens in a typical year (whatever that is!), then the larvae develop only to a pupa stage and they prepare for winter. This flexibility allows berry moth to make the most of long, hot seasons, but it also can create some headaches for grape growers when the fourth generation is timed before grape harvest.

Will the fourth generation affect me?

How much effect this fourth generation of grape berry moth has on grape yield and quality will depend on a number of factors. If you are growing grapes in southwest Michigan and can answer no to any of these questions, then it is not something to be too concerned with this season.

Is there a harvestable crop?

Does the vineyard have berry moth infestation currently?

Will the vineyard be harvested after mid-September?

Conversely, if you can answer yes to these questions and you do have a vineyard with sufficient grape yield to harvest with some history of berry moth infestation, and the harvest will be on the later side of the harvest schedule, it is important to scout the vineyard now and determine the level of damage from the third generation. Some vineyards we have scouted in recent weeks are already at levels where the border rows require protection from this fourth generation to minimize the yield loss and contamination risk during harvest. At a few of these sites we are also seeing infestation moving toward the center of the blocks, so it is worth the time to scout through vineyards and determine whether a border spray is sufficient or if the whole block requires control.

What can I do to protect clusters against the fourth generation?

If you decide to protect clusters from this last generation, there are various insecticide options, but it is very important to observe the pre-harvest intervals (PHI). For example, Intrepid, Hero, Brigadier, Bifenture and Capture have a 30-day PHI, Danitol has a 21-day PHI and Altacor, Imidan, Lannate and Voliam Flexi have a 14-day PHI. Check the PHI of any product before using it in this pre-harvest period. It may also be a good idea to check with your winemaker or processor regarding their policy on late-season sprays.

Both Altacor (14-day PHI) and Belt (seven-day PHI) are newer insecticide options with long-lasting efficacy against grape berry moth eggs and larvae, and these should be timed for application at the predicted start of the egg laying (i.e., this weekend or early next week in southwest Michigan). For these products, excellent cluster coverage is essential, but once it is on the clusters, long residual control of grape berry moth (two to three weeks) is achieved, so these would protect the clusters through until harvest.

For products that are broad-spectrum that are best timed for egg hatch, applications should be delayed to be timed 100 degree days after 2,340 (i.e., at 2,440 GDD from wild grape bloom). Insecticides with a seven- day PHI include Entrust, Delegate, Sevin and Avaunt, and there are various, inexpensive pyrethroid insecticides with shorter PHIs that can provide excellent control for a week, such as Baythroid (three days) and Mustang Max (one day). These have broad-spectrum activity on grape insect pests. Both Venom and Scorpion have a one-day PHI. Dipel and Javelin are B.t.-containing insecticides with high activity on grape berry moths and no side-effects on natural enemies, but they also have short residual control so they would require repeated application to protect berries from the fourth generation of grape berry moth.

For any late-season application targeting berry moth, cluster coverage is essential, so be sure to have the sprayer delivering excellent coverage of the fruit, and don't waste spray out on the leaves.

Dr. Isaacs' work is funded in part by MSU's AgBioResearch.

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

PREDICTED 2012 APPLE HARVEST DATES

A warm winter and early spring set predicted apple harvest dates between 14 and 30 days ahead of normal.

Posted on August 28, 2012, MSU-E News, by Phil Schwallier, and Amy Irish-Brown, Michigan State University Extension

We have the least confidence in our predicted harvest dates for 2012 more than any other year of previous predictions. The winter was warm and the spring early with full bloom being as much as five weeks ahead of normal in the south and four weeks ahead of normal in the north. Numerous nights of frost and freeze events killed primary bloom (bloom born of 2year-old wood and older) and most of any secondary bloom (bloom born of 1-year-old wood) in most of Michigan, particularly the south half. Some areas, however, had apples survive these adverse conditions. Frost and freeze events moved in around the bloom period for most of the state and, thus, most primary bloom were killed. These cold conditions stretched out the bloom period over two to three weeks. The predicted harvest dates are based on primary full bloom The 2012 predicted harvest dates (Table 1) are between 14 and 30 days ahead of normal. These predicted harvest dates are for the center or peak harvest of these varieties for CA storage. Since these predicted harvest dates are based on primary bloom, growers with bloom that survived the frost may mature this early. However, most frost-surviving fruit is from bloom at least a week later than these dates. Thus, the predicted dates have been adjusted by seven days later and listed in Table 2 (adjusted 2012 predicted date).

Table 1. 2012 predicted peak harvest dates

Full bloom d	ate			Predicted date			
Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds	Observer
SWMREC	3/31	4/2	4/3	8/13	9/2	9/8	Shane
Deerfield	4/12	4/15	4/15	8/19	9/13	9/19	Tritten
<u>Romeo</u>	4/17	4/19	4/20	8/23	9/15	9/21	Tritten
Peach Ridge	4/11	4/14	4/15	8/20	9/11	9/20	Schwallier
<u>Hart</u>	4/15	4/18	4/19	8/23	9/18	9/23	Schwallier
<u>NWMHRS</u>	4/25	4/30	5/1	8/30	9/20	9/27	Rothwell

Note: An earlier version of Table 1 showed incorrect results for the <u>Southwest Michigan Research and Extension Center</u> (<u>SWMREC</u>) <u>Enviro-weather station</u> in Berrien County due to a few days of missing data. The current version uses data from the nearby <u>Bainbridge Enviro-weather station</u> when necessary.

Table 2.	2012	predicted	peak	harvest	dates	compar	ed to	normal	and	last v	vear

Days ahead	of normal	Days ahead of last year				
Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds
SWMREC	29	24	24	34	29	28
Deerfield	20	8	13	27	16	16
<u>Romeo</u>	21	10	12	25	17	17
Peach Ridge	25	15	14	27	18	16
<u>Ludington</u>	26	15	21	28	16	17
NWMHRS	23	16	20	25	20	19

Gala is notorious for ripening early when late summer temperatures are above normal. Light crops will mature a few days earlier. Other varieties are less prone to hot temperatures advancing fall maturity. Still, other varieties ripen when cold temperatures occur near harvest time.

The normal harvest dates for other varieties are listed in Table 3 for the Grand Rapids area. This year's 2012 predicted dates and adjusted predicted dates are a rough estimate based on the McIntosh, Jonathan and Red Delicious predicted dates. Other areas of the state should adjust non-predicted varieties based on their own history. Using a 30 days before harvest 2012 predicted harvest date to time applications of ReTain should be adjusted a few days later for fruit from secondary bloom and heavy crop-loads. Light crop-loads, hot summer weather and fruit from primary bloom should be adjusted earlier.

Variety	Normal date	2012 predicted date	Adjusted 2012 predicted date
Devilened	0/24	7/20	0./5
Paulared	8/24	//29	8/5
Gingergold	8/26	7/31	8/7
Gala	9/10	8/15	8/22
McIntosh	9/15	8/20	8/27
Honeycrisp	9/18	8/23	8/30
Empire	9/22	8/27	9/3
Jonathan	9/28	9/11	9/18
Jonagold	9/28	9/11	9/18
Golden			
Delicious	10/2	9/15	9/22
Red Delicious	10/5	9/20	9/27

Table 3. Norma	l peak harvest	dates for va	rieties for the	Grand Rapids	area
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Idared	10/10	9/25	10/2
Rome	10/15	9/30	10/7
Fuji	10/25	10/10	10/17
Braeburn	10/25	10/10	10/17
Goldrush	11/1	10/17	10/24

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CHECKING APPLE MATURITY: WHAT TO LOOK FOR

Follow these apple maturity guidelines to help target apple harvest at the optimum maturity and best storage life.

Posted on August 28, 2012, MSU-E News, by Phil Schwallier, Michigan State University Extension

Maturity and storage guidelines by variety have been developed over the years through the <u>Michigan State University</u> Apple Maturity Program. These guidelines help target the harvest of apples at the optimum maturity and best storage life. Firmness and starch iodine index readings are easily performed in the field. Table 1 lists the suggested firmness and starch index levels for long-term and shorter-term storage by variety. The starch index "mature" level is a guide for long-term CA storage and the "over mature" level for short CA or cold storage.

Table 1.	Suggested	firmness a	nd starch	index	levels f	or long	-term and	l shorter-te	erm storage	by variety.

Variety	Firmness	(pounds	Starch Index*			
	Short CA	Mid CA	Long CA	Export CA	Mature	Over mature
Braeburn	16	17	18		3	7
Cortland	14	15	16		4	6
Empire	14	15	16	18	3.5	6
Fuji	16	17	18		3	7
Gala	16	17	18		3	6
Golden Delicious	15	16	17		3	6.5
Honeycrisp	15	16	17		3.5	7
Idared	14	15	16		3.5	6
Jonagold	15	16	17		3.5	5.5
Jonathan	14	15	16		3.5	5.5
McIntosh	14	15	16		5	7
Mutsu/Crispin	16	17	18		3	6
Northern Spy	16	17	18		3	6
Red Delicious	16	17	18		2.5	5
Rome	15	16	18		3	5.5
Spartan	17	18	19		4	6
Winesap	17	18	19		2.5	6

*Firmness is measured with a mechanical 11-mm wide probe inserted into the pared flesh of a fruit to a distance of 8 mm. Starch index is measured on equatorial cross section of an apple stained with iodine solution and rated using the Cornell University starch-iodine index chart for apples on a 1-8 scale (Predicting Harvest Date Window for Apples by Blanpied and Silsbey, Cornell Extension Bulletin 221.)

Empire has a firmness level guideline for CA empires that are to be held for export. Empire needs an additional 2 pounds of firmness if they are to be exported. They need to be a minimum of 16 pounds firmness coming out of storage at shipping time to arrive at their export destination in good condition.

Starch iodine index indicates the gradual change of starch to sugars in the fruit. In general, immature fruit are nearly 100 percent full of starch and will stain black (1 or 2) on the 8 point New York Starch Iodine Index Chart. As the starch stain clears the core and starts to clear the flesh, the fruit then are mature and ideal for long-term CA storage. Fruits will often remain in the "mature" for seven to 10 days and then start to enter the "over mature" class. Over mature fruit are good for short CA or cold storage.

Brix readings are a guide for target sugar levels in fruit. The higher, the better, but from year to year there is quite a lot of variation. Light crops will tend to have higher brix levels and heavy crops will be on the low end. Honeycrisp are expected to have higher a brix.

Table 2. Brix readings on Honeycrisp and other varieties.

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Brix Guide	Low	Fair	Good	Excellent
All Varieties	Less than 11	11	12	13
Honeycrisp	Less than 12	12	13	Greater than 14

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WHAT FRUIT GROWERS NEED TO KNOW ABOUT THE MICHIGAN AGRICULTURAL DISASTER LOAN

This new program creates short term, low interest loans for qualified borrowers.

Posted on August 16, 2012, MSU-E News, by Curtis Talley Jr., Michigan State University Extension

Michigan fruit farmers have experienced threats to the viability of their businesses from spring frosts. In response to these unprecedented events, the Michigan Legislature crafted this emergency loan package, <u>Michigan Agricultural Disaster Loan</u> <u>Origination Program Act of 2012</u>, was signed by Gov. Rick Snyder on Jun. 28, 2012. Some of the terms and qualifications of the 2012 Fruit Freeze Disaster program are:

25 percent loss across the farm in the "major enterprises" or production loss of 50 percent on one crop for a farm Losses certified by signed affidavit

One percent interest or the rate of the five-year U.S. Treasury note plus .25 percent. (On Aug. 6, 2010 the Treasury note rate was .59 percent)

Five year term (interest only the first year; the principal is paid over last four years, or 25 percent annually) These are "qualified" loans meaning they must be collateralized

Loans have to be entered into by Mar. 31, 2013

The maximum producer loan is \$400,000, or the value of the crop loss, whichever is less; minus the value of insurance proceeds. If crop insurance was available, but not purchased, the loan is reduced 30 percent or \$100,000 whichever is less.

This is not a loan guarantee program or a grant to offset production losses. It is a state supported special term operational loan for "qualified" fruit farm producer participants. Each participating agricultural lender is taking the credit risk and will use their own underwriting standards to determine each applicant's credit worthiness. The \$15 million authorized to be contributed by the State of Michigan is to pay the lenders for administrative costs and loan origination fees. <u>Greenstone Farm Credit Services</u> and <u>Huntington Bank</u> plan to be the participating lenders.

The Michigan Legislature has not yet appropriated the \$15 million to fund this program. The funding is expected early this fall. Subsequently, the loan application form and application instructions should be available. Potential participants are asked to be patient until all of the details of the program are made available. Now is the time to be getting your financial records and documents in order so you are ready to apply.

For more information contact <u>Curtis Talley Jr</u>., district farm management educator at 231-873-2129.

Related Michigan State University (MSU) Extension News article: <u>Michigan Agricultural Disaster Loan Program of 2012</u> includes ag businesses

Additional Information

MSU Extension's 2012 Fruit Freeze Resources

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

NCR-SARE LOOKING FOR SUSTAINABLE AG INNOVATORS

NCR-SARE has announced its 2013 call for research and education proposals. If you have a great idea, why not apply for some grant money to fund it?

Posted on August 17, 2012, MSU-E News, by Dale Mutch, Michigan State University Extension

The 2013 North Central Region Sustainable Agriculture Research and Education Program (NCR-SARE) Research and Education Grant Program Call for Preproposals is <u>now available online</u> at the SARE website.

NCR-SARE's Research and Education (R&E) program supports sustainable agriculture innovators with competitive research and education grants. Individual grants range from \$10,000 to \$200,000. NCR-SARE expects to fund about 8 to 12 projects in the twelve-state North Central Region.

The deadline for Research and Education Program preproposals is 4:30pm CST **November 9, 2012**.

NCR-SARE has implemented a new, shorter timeline for its R&E Grant Program this year. The decision to reduce the interval between preproposal submissions to project awards from 15 to 9 months was made in response to survey comments from potential grant applicants.

The new timeline for the R&E grants is:

Call for Preproposals: August Preproposals due: early November Call for Proposals: late February Proposals due: late April Funding notification: early August Funds available: fall

NCR-SARE administers each of its grant programs with specific priorities, audiences and timelines. The focus for each of the NCR-SARE grant programs is on research and education. Funding considerations are made based on how well the applicant articulates the nature of the research and education components of their sustainable agriculture grant proposals.

NCR-SARE's Administrative Council members decide which projects will receive SARE funds. A collection of farm and non-farm citizens, the council includes a diverse mix of agricultural stakeholders in the region. Council members hail from regional farms and ranches, the Cooperative Extension Service, universities, and nonprofit organizations. In addition, regional representatives of the U.S. Geological Survey, the U.S. Department of Agriculture, the Environmental Protection Agency, the Natural Resources Conservation Service, and NCR agribusinesses, state agencies, and foundations sit at the table to distribute grant money.

For questions or additional information regarding the R&E Grant Program, contact Beth Nelson at (JavaScript must be enabled to view this email address).

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HIGH-TUNNEL MEETING PLANNED FOR SEPTEMBER 5 IN BENTON HARBOR, MI

Learn more about the challenges and benefits of using high-tunnels in the production of fruits and vegetables at a twilight meeting on September 5 at the Southwest Michigan Research and Extension Center.

Posted on **August 28, 2012, MSU-E News,** by **Diane Brown**, Michigan State University Extension If you have been considering adding crop production in high tunnels to your farming operation, please join us for a twilight

meeting from 6:30 to 8:30 p.m. on Wednesday, September 5, at the <u>Southwest Michigan Research and Extension Center</u> (SWMREC). SWMREC is located at 1791 Hillandale Road, Benton Harbor, Mich. (<u>view map</u>).

Have your questions answered about high-tunnel production for several types of crops. Learn about challenges and benefits of using this system for production of fruits and vegetables. The meeting will provide an opportunity to view a number of current research projects underway in the tunnels, and provide some ideas for potential crops and growing methods for you to consider. Meeting attendees will see sweet cherries grown as fruiting walls, performance trials of blackberry cultivars, day-neutral strawberries under evaluation for heat tolerance in tunnels, fall raspberries grown in containers, and vegetables produced in a variety of artificial media.

There is no charge for this meeting. Contact Jamie Styburski at the <u>Berrien County MSU Extension office</u> at 1-269-944-4126 for more information.

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NEW MSU STUDY SEEKS GRASSLAND COOPERATORS

Cooperators are needed to help in assessing the effects of grassland harvest on pollinator populations.

Posted on August 28, 2012 by Rufus Isaacs, and Doug Landis, MSU-E News, Michigan State University Extension, Department of Entomology

<u>Michigan State University</u> (MSU) <u>Department of Entomology</u> scientists <u>Rufus Isaacs</u> and <u>Doug Landis</u> have received a <u>U.S.</u> <u>Department of Agriculture</u> grant to investigate the effects of grassland harvest on pollinator populations and are looking to team up with grassland owners and managers to assist with their efforts.

Bioenergy crops have the potential to change the landscape in the Midwest and, subsequently, the habitat of the wildlife that depends on it. This grant will provide the opportunity to investigate ways that biofuel crops – in this case, perennial grasses – can best be managed to minimize adverse effects on insect pollinators.

The study will compare pollinator communities in warm-season grasslands, primarily switchgrass or mixed prairie plantings containing Indiangrass, big bluestem or switchgrass, which are either unharvested, partially harvested (leaving a 10 percent refuge strip on one side) or completely harvested.

The research team is looking for sites in Michigan with three grassland fields about two to four miles apart where landowners or managers would allow partial to full cutting and hay removal in the fall of 2012 and 2013. Sampling in all sites would involve three visits (July, August and September of 2013 and 2014) to assess bee species and population levels. The team would like to work with local cooperators who would harvest the sites in return for the harvested forage.

It will take a collaborative effort to be successful in this endeavor. We can't do this work without landowners who are willing to provide access to their fields so that we can do the pollinator sampling required to inform future policies and management practices. This project is part of our overall goal to use Michigan native plants to produce win-win situations for agriculture, communities and the environment.

Study results will be used as the basis for harvesting guidelines on providing sustainable sources of biomass for bioenergy production while maintaining critical resources for pollinators in agricultural landscapes. For more information, please contact <u>Julia Perrone</u> at 517-432-5282.

Drs. Isaacs and Landis' work is funded in part by MSU's AgBioResarch.

This article was published by <u>MSU Extension</u>. For more information, visit <u>http://www.msue.msu.edu</u>. To contact an expert in your area, visit <u>http://expert.msue.msu.edu</u>, or call 888-MSUE4MI (888-678-3464).

WEBSITES OF INTEREST

CIAB Weekly Harvest Report Week 9

Insect and disease predictive information is available at:

http://www.enviroweather.msu.edu/home.asp

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://news.msue.msu.edu/news/category/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, 2012

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

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<u>Nikki Rothwell</u> District Horticulturist <u>Duke Elsner</u> Agricultural & Regional Viticulture Agent <u>Bill Klein</u> Farm Mgr, NWMHRS

PLUM NURSERY MITES AND FIRING OBSERVED IN TART CHERRY

Growers may need to apply a miticide application to protect overwintering health of trees

Nikki Rothwell, NWMHRC John Wise, TNRC

August 31, 2012

With this season's hot and dry conditions, we have observed high plum nursery mite populations in tart cherry. In some cases, these mites coupled with the weather conditions have resulted in 'firing' of tart cherry branches. Firing looks similar to fireblight in apple where a branch or multiple branches on a tree appear dead and all or the majority of leaves on that branch are completely brown and dried up. Branches will die as a result of this firing. Firing can occur without the presence of mites, but in most cases, the mite and weather combination cause this problem. In most years, plum nursery mites are present in tart cherry but with the hot weather of 2012, these mites have reproduced quickly and populations have exploded in orchards. We have observed higher than normal plum nursery mite populations in our miticide trial at the NWMHRC.

To determine if a miticide is warranted in trees this late in the season, growers should establish if mites are indeed present on the leaves of the tree. Plum nursery mite is a rust mite. These mites are extremely small and live on the upper and lower leaf surfaces and feed primarily on new growth. Growers should use a high powered hand lens (30x) and look for the tiny wormlike mites with two pairs of legs along the leaf midribs. If growers observe the mites, particularly in trees with firing, a miticide is likely needed to protect the overwintering health of the trees as it is at risk from mite injury. Now is a good time to apply this miticide application because plum nursery mites will continue to feed and reproduce into September. Vendex and Nexter are registered for plum nursery mites (rust mites) in cherry.

Miticide applications are not inexpensive, and a spray for mites is somewhat unusual this late in the season. Growers are understandably hesitant to spend the money on this application following a particularly difficult year. However, if mite populations are extremely high and this hot and dry weather continues, more firing and branch death can result in weakened trees and orchards as we head into winter.

SAVE THE DATE: MEETING ON DISASTER LOANS, SEPT. 25TH

Please mark your calendars for the upcoming meeting on 'Preparing Growers for Disaster Loans' at the Northwest Michigan Horticultural Research Center on September 25 from 1-5pm. This meeting will help growers get important financial information together to complete applications for the newly available disaster loans.

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Please send any comments or suggestions regarding this site to: Bill Klein, $\underline{kleinw@msu.edu}$

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