News you can use

**NW grower workshop**
A workshop on “Recent achievements in viticulture research and vineyard management practices” will be held on November 12, 8 AM - 5 PM at the NW Horticultural Research Station. See the calendar and registration information at the back of this newsletter.

**Save the Date - SW grower workshop**
A day-long workshop, titled “Recent Advances in Vineyard Technology and Pest Control” is planned for February 24, 2011 at SWMREC in Benton Harbor. Our keynote speaker is Dr. Andrew Landers of Cornell University. Dr. Landers is a world-renowned pesticide application technology expert, and will discuss sprayer technology, spray calibration, and optimizing spray deposition in vineyards. Among other topics planned are spray volumes, rainfastness of insecticides and fungicides, new insecticides and fungicides and their modes of action, and a summary of insect and disease threshold research for juice and wine grapes. Coming off a challenging season for achieving grape berry moth and phomopsis control, this is a workshop you won't want to miss! Additional information and registration details will be available soon. Contact Diane Brown at the Berrien County MSUE office 269-944-4126.

### GROWING DEGREE DAYS

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<th>Region</th>
<th>Date</th>
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*5-yr Avg = 2005 to 2009

See enviroweather.msu.edu for more information.
Cool days and some very cold nights have slowed the pace of insect and disease activity throughout NW Michigan vineyards. Wasp and ant feeding on berries has remained a minor problem thus far due to the cool conditions. Cluster rots have not been much of a problem except in very susceptible cultivars such as Vignoles and some Pinot Gris blocks that had poor canopy management.

Harvest of most early to mid season varieties is complete or well under way. Riesling at the NWMHRS is approaching 20 Brix but the acidity levels are still a bit high. The frosts in our area during the last week were not severe enough to affect good vineyard sites.

End-of-season scouting summary for NW Michigan

Erin Lizotte & Nikki Rothwell
NW Michigan Horticultural Research Station

The 2010 growing season was interesting and presented some uncommon pests and unique weather conditions. As the weather has cooled and many area vineyards are in the throes of harvest, growers are, or soon will be reflecting on the season. Since the massive cool-off in September, there is still fruit hanging in northern Michigan vineyards with the hope of some warmer weather and sunshine to aid in improved quality.

The spring weather brought an early warm up that resulted in some frost damage in lower sites and a ‘thinning’ effect in optimal fruit sites. We had multiple inversion frosts and one wind freeze this spring. Many of our fruit crops were damaged, but the damage was highly variable between orchards and vineyard sites. Despite the frosty conditions, most vineyards recovered well or were moving along slow enough in the spring to leave enough fruit in the vineyards to produce quality clusters.

Like most regions of the state, northwest Michigan had an extremely warm, sunny summer. We had ample rainfall for the season and did not experience our more typical dry spell mid-season. With the heat this season, we were at least two weeks ahead of a ‘typical’ year in terms of crop development. In April, we had three days into the 80’s and had already accumulated 484GDD base 42 and 234GDD base 50; we had 2.6” of rainfall that month. In May, we continued with the warming trend with high 70’s and 80’s, and three days that reached into the 90’s. Rainfall in May was similar to April with 2.52” of rain. In June, 66% of our days were in the 70’s and 80’s, and we had ample moisture with 5.6” of rain. July and August again followed the early season heat with 77% of days in the 80’s of above in July. In these two months, we had 1.86” of rainfall in July and 3.65” in August. September was generally cool, windy, and rainy; temperatures were in the 50’s and 60’s, and we have had approx. 3” of rain.

In terms of disease this season, downy mildew was more prevalent than we typically observe in the north. Powdery mildew was also a concern this year, but neither disease has caused significant issues in well-covered vineyards with optimally timed sprays. Botrytis has been a sporadic issue, particularly in vineyards affected by grape berry moth damage and those where leaf pulling occurred too late in the season.

Symptoms of leafroll virus were visible on area vines this season. Leaves on vines infected with leafroll virus become yellow or reddish purple as the season progresses; the main veins remain green. By late summer, the leaves start rolling downward and at harvest fruit clusters are small, poorly colored, and low in sugar. The disease does not kill the vine but is chronic and is spread primarily via infected nursery stock and the grape mealybug. Crown gall and nutrient deficiencies can produce similar foliar symptoms, so growers should not assume that leafroll virus is the cause.

Grape berry moth numbers were significantly higher in some of our scouted vineyards as well as other regional vineyards. However, as is typical in most years, traps failed to catch adult moths despite larvae being highly visible in clusters, indicative of a robust adult population. We don’t know why pheromone traps don’t work well in the north as they seem effective in other grape growing regions. Based on grower feedback, grape berry moth treatments were applied for the first time at many area vineyards this season.

The early season brought major infestations of forest tent caterpillar, where caterpillars crawled or were blown in from neighboring woodlots; these larvae were sporadic and in most sites did not cause significant damage to the newly emerging leaves and shoots. Management for this insect is not recommended and was not commonly reported. Forest tent caterpillar follow a boom-bust cycle of population density and the 2009-10 seasons have seen extremely
high populations around northwest Michigan. Forest tent caterpillars are a native species with indigenous natural enemies, diseases, and resource limitations that are expected to naturally control populations in the coming seasons. The earwig population seemed excessively high in some area vineyards as well.

Another unusual insect arrived in area vineyards last fall and early this spring: Lecanium scale. Lecanium scale nymphs were spotted blowing into vineyards last fall from surrounding windbreaks and woodlots-likely a result of the extremely high populations in hardwood tree species. We have not observed high levels of Lecanium scale in vineyards previously and so do not have an established threshold to determine when control measures as warranted; however, the negative effects observed in hardwood species over time are well-documented and likely translate to other woody plants. The rule of thumb is that vigorous and healthy trees and plants can tolerate some scale infestation, but if high populations of Lecanium scale are found, control programs should be considered. Some growers in the region did treat for scale on young or stressed vines.

Overall, potato leafhopper (PLH) numbers were lower than anticipated with the many early season rains and storms that are typically associated with higher populations. Many area growers did not treat for PLH this year. Rose chafer arrived in late June and some vineyards had intense pressure that warranted control, but with the season’s heat, the rose chafer population was only present for a short time. We saw very few Japanese beetle in late July and throughout August, and there were no reports of control measures for this pest. *Phylloxera*, grape flea beetle, snailcase bagworms, grape plume moth, ants, yellow jackets and fall webworm were also observed in low numbers this season. Bird damage was an issue for area growers without netting, particularly in red varietals.

Beneficial insects were out in full force this season. We observed very high numbers of assassin insects and parasitic wasps, as well as ladybeetles and syrphid flies. Lastly, the spider population in vineyards appeared healthy this season.
End-of-season scouting summary for SW Michigan

Steve Van Timmeren, Research Technician
Trevor Nichols Research Complex

Early Season
This year started out promising with an early burst of warm weather, but changed quickly with frost events in late April and early May causing widespread damage around the region. Vineyards that sustained more damage usually received fewer fungicide and insecticide sprays, resulting in higher insect and disease pressure later on in the season.

At the sites scouted for this newsletter, grape flea beetles were present at lower levels than they have been in the seven years we’ve been scouting. Rose chafer were present, but never at levels that warranted treatments. Many other minor insect pests were found at various points early in the season including banded grape bug and Lygocoris nymphs, grape cane girdler, grape cane gallmaker, and hornworms, however, all of these pests were sporadic and mostly found in vineyards with reduced spray programs. The early warm weather brought the grape berry moth (GBM) out early this season; a trend that continued through to the present.

Phomopsis leaf infections were quite high in the spring, indicating a lot of inoculum was around on the vines. In addition, there were more black rot infection events in the early part of the season than in many of the previous years.

Mid-Season
This year potato leafhopper adults showed up in vineyards very early, but remained at low levels for several weeks before nymphs started to show up on leaves. Insecticide applications were required in some vineyards with highly susceptible varieties, but were generally controlled once an insecticide was applied. Japanese beetles started out at lower levels this year, but were still quite numerous in hot spots and on young vines. Grape berry moth-infested clusters increased rapidly through the month of July and were higher than the six year average. The growing degree model for GBM indicated that the moths reached second and third generation egg-laying earlier than in most previous years.

As clusters began to size up during the season, Phomopsis began to show up on berries and cluster rachises. In frost-damaged vineyards that received minimal fungicides infections were quite high. Black rot infections were high in these vineyards as well. Given the wide range of cluster ages due to the mixture of primary and secondary clusters, black rot infections continued to show up on berries for quite awhile until all clusters developed immunity to new infections. Downy mildew showed up early this year in susceptible varieties, but remained at low to average levels in less susceptible varieties. Powdery mildew infections on berries and rachises stayed low at the sites scouted for this report, but some Concord vineyards did end up with high levels of infections on berries and rachises. Leaf infections were present as well, but mostly tucked under the canopy where humidity levels were higher.

Late Season
As we approached harvest, the different levels of management in vineyards became more and more noticeable. Frost-damaged vineyards that received little management had a lot of berries with Phomopsis infections in addition to the mummified black rot berries that were already present from earlier in the season. At the borders the majority of clusters had grape berry moth infections and infections were present much farther into the interior than they would have been in normal management years. All of these factors resulted in quite a few berries falling on the ground. In vineyards receiving standard management, diseases levels were about average and grape berry moth infections were above average, with most infections occurring at the border. As clusters continued to accumulate sugar, ants, fruit flies, and yellow jackets moved in to the clusters, hollowing out berries as long as the clusters hung on the vines. While multi-colored Asian ladybeetles were very common earlier in the season, they weren’t a problem at harvest time.

The heat this summer meant that the third generation of grape berry moth egg-laying occurred in late August instead of mid-September when it normally occurs. The GBM GDD model shows that the generation that hatched in late-August has almost completed its development. These larvae will be dropping out of the clusters and spending the winter as pupae in the leaf litter under the vines. This successful extra generation coupled with vineyards not getting harvested means that there is potentially a bumper crop of GBM that will be overwintering. While we don’t know what the winter survival rates of these GBM will be yet, you should still keep this in mind when you’re preparing for GBM management next year.

Likewise, the high levels of diseases in many vineyards this year means there will be plenty of inoculum in the vineyards next spring. If you haven’t done so already, you should make notes on each of your vineyard blocks, recording where insect and disease pressure was greatest. This information will be very helpful when you’re planning out when and where to apply pesticides next year.
Grower Workshop: Recent advances in vineyard technology and pest control
February 24, 2011
SWMREC - Benton Harbor, MI

2011 Midwest Grape & Wine Conference
More information: http://www.midwestgrapeandwineconference.com/
February 4-7
St. Charles Conv. Center - St. Charles, MO

2011 Finger Lakes Grape Growers Conference & Trade Show
More information: Hans Walter-Peterson, hcw5@cornell.edu
March 4-5
Holiday Inn - Waterloo, NY

2011 Wineries Unlimited
More information: http://wineriesunlimited.vwm-online.com/
March 29-April 1
Greater Richmond Convention Center - Richmond, VA

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WORKSHOP ON RECENT ACHIEVEMENTS IN VITICULTURE RESEARCH AND VINEYARD MANAGEMENT PRACTICES

Date: Friday, November 12, 2010
Time: 8:00AM-5:00PM
Location: NW Michigan Horticultural Research Station, 6686 S. Center Hwy, Traverse City
Cost: $75 for 1st person from each winery/company, $25 for each additional person from each winery/company

Advanced registration is required, lunch is included.

Payment options
Register online HERE

OR
Send registration form and check, made payable to “Michigan Wine Foundation”, to:
Liz Berger
C/O Chateau Chantal
15900 Rue de Vin
Traverse City, MI 49686

Registration deadline is November 5, 2010.

More information
Paolo Sabbatini
517-355-5191, x1302

Paul Jenkins
517-648-5099

Program
8:00AM Check-in and refreshments
9:00AM Welcome and introductions
   Nikki Rothwell & Paolo Sabbatini, Michigan State University
9:20AM Recent advances in canopy management
   Nick Dokoozlian, E&J Gallo, CA
10:00AM Mechanization of vineyard operations with emphasis on crop control
   Keith Striegler, University of Missouri
10:40AM Break
11:00AM Rootstocks for grapevine root health
   Peter Cousins, Cornell University/USDA
12:00PM Lunch
1:00PM Vineyard cultural practices: Where is the biggest bang for your buck?
   Nick Dokoozlian, E&J Gallo, CA
1:45PM The role of rootstocks in achieving vine balance
   Jim Wolpert, University of California-Davis
2:30PM Break
3:00PM Winegrape cultivars: A key to reconciling viticulture practices and production efficiency
   Diego Barison, Novavine, CA
3:30PM Dealing with freezing stress in grapevines
   Imed Dami, The Ohio State University
4:20PM Roundtable discussion with speakers
REGISTRATION FORM

Advanced Registration Deadline: November 5, 2010

Workshop: Recent achievements in viticulture research and vineyard management practices.
November 12, 2010
8AM-5PM
NWMHRS, Traverse City

1. Contact information.
Winery or Company Name: _______________________________________________________
Address: ______________________________________________________________________
City_________________________________ State_________Zip_____________
Phone__________________________Email:______________________________________

2. Attendance and cost. This workshop is priced to encourage attendance by as many people as possible from
each winery or company. $75 first person; $25 each additional person.

Registrant #1 _____________________________ X $75.00
Registrant #2 _____________________________ X $25.00
Registrant #3 _____________________________ X $25.00
Registrant #4 _____________________________ X $25.00
Registrant #5 _____________________________ X $25.00

TOTAL $_________

3. Payment. Make checks payable to Michigan Wine Foundation. Send check and registration form to:

Liz Berger
c/o Chateau Chantal
15900 Rue de Vin
Traverse City, MI 49686

Online Credit Card registration available here.