Weekly Vineyard IPM Scouting Summary
2008 Season Summary Report
Southwest Michigan

This is the scouting summary report of scouting that took place at four vineyards in southwest Michigan in 2008. Thanks to the many people who have helped make these weekly reports possible!
Steve Van Timmeren

**Grape berry moth trap captures during the first generation emergence period were the lowest they’ve been since scouting began in 2004. In addition, the emergence peak was about one week later than 2007 and three to four weeks later than the 2004-2006 seasons. After the first generation emergence period very few adult males were caught in traps.**

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** GBM infestations were at low to average levels early in the season and ended up being similar to the 2007 season closer to harvest. However, individual sites varied quite a bit from this average. The Van Buren Concord site started the year quite low but saw a late season surge in infestations at the borders, while the Berrien 2 Concord site had low infestation levels throughout the season. The Berrien 1 Vignoles site had an average amount of infestation, although high amounts of sour rot and Botrytis late in the season made it more difficult to find the GBM larvae in the clusters. A couple of lessons here are to make sure you know what's going on in your own individual vineyards and to not become complacent about GBM as harvest approaches.
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Japanese Beetle:

** This was an average year for Japanese beetles at the four sites scouted for this report. After an initial spray for JB at the end of July (notice the dip) the growers let the JB feed on foliage until populations naturally declined or they were affected by a grape berry moth spray. As with GBM, populations of JB varied greatly from vineyard to vineyard, with the two Concord sites having lower pressure and the Vignoles and Chardonnay sites having higher pressure. If you haven't been doing any scouting in your vineyards and would like to start next year, Japanese beetles are a great pest to start with as they are easy to spot. Just remember that mature vines can usually handle quite a bit of feeding damage without causing any lasting effects to the crop or health of the vines.

Leafhoppers:

** The number of potato and grape leafhoppers found during scouting in 2008 was about average when compared to the previous four years. Only the Allegan Chardonnay site had enough leafhoppers to warrant any control measures, with potato leafhoppers increasing at the end of June and again at the end of July.
**Other Insects:**

** Cutworms and flea beetles were not a problem at any of the sites scouted for this report. There were a few rose chafers that could be found during bloom but never at levels that needed to be controlled.  

** The Van Buren Concord site had quite a few minor pests along the border early in the season. While populations of some of these pests were quite high near the border none of them penetrated farther into the vineyard. Many of these minor pests were wiped out with the post-bloom grape berry moth spray.

![Some of the pests found at the Van Buren Concord site early in the season (clockwise starting top left): grape plume moth larva, Lygocoris inconspicuous nymph, banded grape bug nymph, grape cane girdler adult.]

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**Downy Mildew:**

** Downy mildew infections on leaves were low for most of the season and only began to show up in late September. Most of those late infections were on leaves at the Chardonnay and Vignoles sites.

![Downy mildew infections on Vignoles leaves at the Berrien 1 site.]

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<table>
<thead>
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<th>Date</th>
<th>Percent of Leaves With Downy Mildew</th>
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<tr>
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![Downy Mildew Leaves]

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** Downy Mildew:**

- 2006
- 2007
- 2008
Phomopsis leaf infections early in the season in 2008 were similar to the last two years, but infections didn’t decrease as much later in the season.

The percent of clusters that had Phomopsis berry infections in 2008 was lower than the previous two years. In addition, infections were showing up on clusters later in the season than the previous two years.
Powdery Mildew:

** Powdery mildew on berries was quite low in 2008 at the Allegan Chardonnay site, the only site that has ever had a problem with powdery mildew on the berries. While berry infections were low at the Allegan site, infections on leaves and rachises were higher this year at the two Concord sites than they have been in previous years. Leaf infections were especially present on leaves in the middle of the canopy where the humidity was higher.

** Botrytis infections remained at moderate levels until mid-September when they increased rapidly. The Van Buren Concord site had quite a bit of Botrytis on cracked and GBM-infested berries at the borders. This was similar to what happened last year. The two wine grape sites (Chardonnay and Vignoles) both had more Botrytis on clusters than in the previous two years.
Growing Degree Days:

This report is a summary of weekly scouting from winegrape and juicegrape vineyards in southwest Michigan. It should be used only as a general guide, because pests vary greatly in their abundance from site to site. Scouting your own vineyards is the best way to know whether pest problems are developing in your farm.

For more information on this project, contact Steve at (517) 242 1282
More information on Vineyard IPM is available online at:  www.grapes.msu.edu
All photos: Steven Van Timmeren
Summary of Winegrape Season, 2008

This final scouting report will highlight some of this year’s challenges and triumphs in growing winegrapes in northern Michigan. The season started off cool, and despite a few hot days, particularly this fall, overall growing degree day (GDD) accumulations were lower than in the past few seasons. By October 15, we had accumulated 2359 GDD base 50 and 3076 base 42. Compared with our hot season in 2007, this one seemed a bit on the chilly side, but overall degree day accumulations for 2008 are close to our 18-year average for the region (Figure 1).

Rainfall totals were a little under 20 inches for the season (Table 1). This precipitation was varied throughout the year where we had over 2 inches of rain in April, 1.5 inches in May, 3.5 in June, 2 inches in July, less than one inch in August, and 2 inches in September. Growers without irrigation were concerned about water stress in late July through August.

Table 1. Rainfall totals (inches) from Jan. 1 to Oct. 1 from six northwest weather stations for the last 4 years.

<table>
<thead>
<tr>
<th>Location</th>
<th>2005</th>
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Figure 1. Growing degree day accumulation for the last four years at the NW MI Horticultural Research Station.
Insect Pests:

Insect populations were in low numbers this year. Cutworms were almost non-existence early in the season due to the cool spring temperatures. Potato leafhoppers were actually difficult to find in most vineyards despite the number of early season storms. Grape berry moth (GBM) were problematic in some vineyards, and numbers of infested clusters seem to be on the rise; we attribute this increase to knowledge of the pest and more diligent scouting, particularly in areas close to woodlots (Figures 2,3,4). Grape phylloxera was seen for the first time in the region, but managers of these infested vineyards had been aware of the problem for years!

![GBM adult caught on pheromone trap.](image)

![GBM infested berry.](image)

**Figure 2.** Total number of GBM caught in four traps at four vineyard sites in northwest Michigan. Traps were checked weekly from May 7th to September 11th.

**Figure 3.** Number of GBM infested clusters out of 50 scouted at the border and in the interior of vineyard A.
**Fungal Diseases:**

Overall disease pressure seemed to be moderately low for most vineyards. Isolated growers struggled with powdery mildew (PM), but despite the dry parts of the season, we saw very few PM infections. Here at the NWMHRS, we were successful at creating a PM epidemic for our trials, so our block most likely had the most PM of any vineyard in the region. Downy mildew was present, but isolated. We saw Phomopsis in a few sites for the first time, and more than likely these infections were here prior to our discoveries this year. Most vineyards managers and growers were successful at keeping disease at bay in 2008.
On the whole, the 2008 season seemed to treat most growers well. We would like to take this opportunity to thank all of our managers and growers that were gracious enough to have us in their vineyards each week: Larry Mawby of L. Mawby Vineyards, Jay Briggs of Shady Lane Vineyards, Jayne Leatherman-Walker of the Eco-Learning Center, and Craig Cunningham of Leorie Vineyards. We tried a bit of a different tact with our scouting this year as each of these vineyards has a different pest management strategy. We scouted in such a way to provide the rest of the winegrape community an intensive and diverse look at pests and diseases in the region. We hope this information was valuable, informative, and worthwhile. We also welcome any feedback you might have: call Nikki at the NWMRHS (231-946-1510). We hope everyone had a successful harvest, and we look forward to working with you for many years to come.

--Nikki, Karen, Melinda, Lee, and Erin

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All photos: Karen Powers and Steven Van Timmeren unless noted