To all the readers of the southwest Michigan grape IPM scouting report:

This is the last regular issue of the grape scouting report for 2007. Thanks to the many people who helped make these reports possible! Over the next few weeks we’ll be putting together a summary report to wrap up the 2007 season. If anyone has comments, suggestions, etc. please feel free to email me at vantimm2@msu.edu.

Thanks again!
Steve Van Timmeren

Weekly Vineyard IPM Scouting Summary
Report for the week of October 4, 2007
Southwest Michigan

Grape Berry Moth:

<table>
<thead>
<tr>
<th>Site</th>
<th>Variety</th>
<th>8/30</th>
<th>9/6</th>
<th>9/13</th>
<th>9/20</th>
<th>9/27</th>
<th>10/4</th>
<th>%Clusters Infested With GBM</th>
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<tr>
<td>Van Buren</td>
<td>Concord</td>
<td>6.5</td>
<td>5.8</td>
<td>4</td>
<td>1</td>
<td>1</td>
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<td>28/30 9/6 9/13 9/20 9/27 10/4</td>
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<tr>
<td>2007 Average</td>
<td>7</td>
<td>6</td>
<td>4</td>
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<tr>
<td>2006 Average</td>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td>2005 Average</td>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td>2004 Average</td>
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<td>2</td>
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<td>0</td>
<td>N/A</td>
<td>15 17 17 18 N/A N/A</td>
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** The percent of clusters infested with GBM dropped significantly this week. While some of this drop is due to older infested berries dropping off the clusters, a good portion of this drop is probably the presence of fruit fly-infested berries masking GBM infestations. See the fruit fly notes below for more details.

Multi-colored Asian Ladybeetles:

** Only a few multi-colored Asian lady beetles (MALB) were seen at the Van Buren site during scouting this week. So far this fall MALB populations in the vineyards have been very low. Still keep a close eye out for MALBs, though, as they could still cause problems on warm sunny days. If find quite a few MALBs in a vineyard you’ll be picking soon you may want to apply one of the insecticides labeled for MALB that have a shorter pre-harvest interval (PHI). These include Baythroid XL (3 day PHI), Evergreen (12 hour PHI), and Venom 20SG (1 day PHI).

Fruit Fly Notes:

** Fruit flies continue to infest cracked and grape berry moth-infested berries at the Van Buren site. The mixture of fruit flies and GBM is making it difficult to tell if a berry has fruit flies, GBM, or both in it. One way to tell is to split the berry open and look inside. Fruit fly larvae are white with a pointed head while GBM larvae will be anywhere from green to purple and have a distinct head capsule. Another obvious key is the presence of adult fruit flies flying around grape clusters. For a video of a fruit fly larva crawling around in a Concord grape Click here. For a video of a fruit fly adult exiting a hollowed out Concord grape Click here.

Older GBM infestation on Concord cluster.

MALB feeding on Aurore grape at TNRC.

Young GBM larva (left) and older GBM larva (right) to compare to fruit fly larva (far left above).
**Bloom and Post-Bloom Disease Control**

*(In anticipation of next spring; courtesy of Annemiek Schilder):*

The bloom and post-bloom period is a critical for disease control in grapes, as the young clusters are highly susceptible to diseases, including black rot, downy mildew, powdery mildew, and Phomopsis. The risk is especially great if there is a lot of rain and moderate to warm temperatures during this time. Cool wet weather during bloom can also allow Botrytis to get a foothold in the clusters of susceptible varieties by promoting growth on senescing flower parts.

The main aim for fungicide sprays during and after bloom is to protect the clusters from infection by these pathogens while simultaneously protecting the foliage as well. Some infections that occur during this period may remain dormant (invisible) until the berries are close to veraison (black rot) or ripen (Phomopsis, Botrytis). As the berries mature, they become naturally resistant to new black rot, downy mildew, and powdery mildew infections and the need for protection diminishes. This happens quite rapidly (2-3 weeks after bloom) for downy mildew, 3-4 weeks after bloom for powdery mildew and 4-5 weeks after bloom for black rot. Some wine grape varieties remain susceptible to black rot a couple of weeks longer than Concord grapes.

However, be aware that the cluster stem (rachis) and especially the berry stems can remain susceptible longer than the berries in most cases. The only disease to which berries remain susceptible throughout their development is Phomopsis, but the risk of infection diminishes after bunch closing because spore release drops off then. Botrytis is more of a risk late in the season as the clusters become more susceptible after veraison, especially in tight-clustered varieties. In general, aim to protect the clusters from the major diseases from immediate pre-bloom until 4-5 weeks after bloom. If cluster development is variable, make sure that the latest developing clusters have caught up before easing up on the spray program.

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**CURRENT GROWTH STAGES:**

**Concord-Van Buren**

As of October 4: Harvesting soon

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**MORE INFORMATION ON GDDs**

**SITe**

<table>
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<tr>
<th>SITE</th>
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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](http://www.grapes.msu.edu)

All photos: Steven Van Timmeren