**Grape Berry Moth:**

<table>
<thead>
<tr>
<th>Site</th>
<th>Variety</th>
<th>Average Number of GBM in Traps (Average of 4 Traps Per Site)</th>
<th>Percent Clusters Infested With GBM (25 Clusters Scouted at 4 Locations at Each Site)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegan</td>
<td>Chardonnay</td>
<td>0.3 1 1 1 2</td>
<td>7/26 8/2 8/9 8/16 8/23 8/30</td>
</tr>
<tr>
<td>Berrien 1</td>
<td>Vignoles</td>
<td>2.5 1.3 4.3 8.8 26.3</td>
<td>1 1 3 6 2</td>
</tr>
<tr>
<td>Berrien 2</td>
<td>Concord</td>
<td>0 5.3 6 4.3 4</td>
<td>0 0 3 0 0</td>
</tr>
<tr>
<td>Van Buren</td>
<td>Concord</td>
<td>4.8 12 5.3 2 4.8</td>
<td>17 15 31 29 30</td>
</tr>
</tbody>
</table>

**2007 Average**
- 2 5 4 4 9
- 6.8 11.8 11.8 11.3

**2006 Average**
- 7 12 8 8 8 18
- 7 9 12 18 23 25

**2005 Average**
- 4 7 3 4 2 3
- 14 13 25 28 28 26

**2004 Average**
- 2 3 2 5 7 6
- 6.4 4.5 10 13.5 13 15.3

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**Japanese Beetles:**

**JBs decreased at the Allegan site, partially because scouting took place just after a rain shower. At all other sites JBs are almost non-existent. If you do have some JBs still around, don't be afraid to let them eat some foliage. As long as they aren't causing major defoliation of the vines they shouldn't be a problem. Watch your young vines closely, though, since JBs can defoliate them very quickly.**

**GBM Infested Concord berry.**

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**Other Notes:**

**A few multi-colored Asian ladybeetles (MALB) were found during scouting at the Van Buren and Berrien 2 sites this past week. All of these MALB were just seen on leaves and not feeding on any berries yet. Now is the time to keep an eye out for them, especially if you have cracked berries they can easily feed on. The MALB is easy to tell from native ladybeetle species because of the black "W" that is on the pronotum (just behind the head). For more information**

**If you missed the last evening meeting on August 9 you can still get most of the handouts from that meeting.**

**Ants have been seen on grapes at all four sites. At the two Concord sites they have begun to feed on cracked berries, while at the Vignoles and Chardonnay sites they are feeding on diseased berries. For more information on ants**

**Yellow jackets have been seen at the Berrien 1 site but only in low numbers. For more information on yellow jackets**

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**After increasing rapidly a few weeks ago, the percent of clusters infested with GBM has remained about the same for three weeks. Levels remain the lowest in four years of scouting at these sites. It is important to remain vigilant, however, since we still could see a late season increase. If you have early-harvested varieties such as Niagara, applying insecticide sprays for GBM won't really help this close to harvest. If you have any higher pressure vineyards that won't be harvested till later in September or early October you may want to put on an insecticide spray. This is especially true if you're in an area that has received a lot of rain. Sites with low GBM pressure may be able to get by without a spray or just a border spray. Make sure to scout the border and interior of your vineyard so you can make a determination on whether to spray or not. For a form that can assist you with scouting**

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**Click here to see the handouts available.**

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**Click here.**

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**Click here.**
Disease Notes:

**Disease Level Rankings:** None, Trace, Low, Moderate, High, Very High

<table>
<thead>
<tr>
<th>Farm</th>
<th>Variety</th>
<th>Black Rot</th>
<th>Botrytis</th>
<th>Downy Mildew</th>
<th>Phomopsis Rachis</th>
<th>Phomopsis Leaf</th>
<th>Powdery Mildew Leaf</th>
<th>Powdery Mildew Berry</th>
<th>Sour Rot Berry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegan</td>
<td>Chardonnay</td>
<td>None</td>
<td>Trace</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Berrien 1</td>
<td>Vignoles</td>
<td>None</td>
<td>Low</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Moderate</td>
</tr>
<tr>
<td>Berrien 2</td>
<td>Concord</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Trace</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Van Buren</td>
<td>Concord</td>
<td>Trace</td>
<td>None</td>
<td>None</td>
<td>Trace</td>
<td>Trace</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

** Sour rot has increased dramatically at the Berrien 1 site. Botrytis increased as well, mostly as secondary infections on sour rot and phomopsis infested clusters. Diseases at the two Concord sites remain quite low. No downy mildew has been seen at any of the sites, but quite a bit is showing up on Niagara leaves in a vineyard at the Trevor Nichols Research Station.**

**Downy Mildew Control Options (courtesy of Annemiek Schilder):**
- ProPhyt, Phostrol, Agri-Fos, Aliette (Phosphonates; highly systemic; 0-day PHI), good preventive and curative activity. Use higher rate if applying after infection period. Possible phytotoxicity when tank-mixed with sulfur, surfactants, foliar fertilizers, some pesticides.
- Abound, Pristine, Sovran (Strobilurins; systemic/locally systemic; 14-day PHI). Excellent preventive activity (~14 days), limited post-infection activity. Abound is phytotoxic to apples, Pristine is phytotoxic to ‘Concord’ and some other Labrusca-type grapes; Sovran is phytotoxic to some sweet cherry varieties.
- Captan (Phthalimides; protectant; 0-day PHI): good preventive activity; not allowed on juice grapes by some processors.
- Copper (Inorganics; protectant; 0-day PHI): good preventive activity, some grape varieties are sensitive to copper, especially under cool, slow-drying conditions. Specific formulations can be used in organic vineyards.
- Serenade (Biological control agent; protectant; 0-day PHI): moderate preventive activity Organic formulation can be used in organic vineyards.

**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.**
**Potato Leafhopper:**

<table>
<thead>
<tr>
<th>Site</th>
<th>Variety</th>
<th>Average Number of PLH in Traps (average of 4 traps/site)</th>
<th>Average Number of PLH per Leaf (average from 200 leaves)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leelanau</td>
<td>Chardonnay</td>
<td>4, 1.25, 0, 0</td>
<td>0.02, 0, 0.01, 0</td>
</tr>
<tr>
<td>Old Mission</td>
<td>Riesling</td>
<td>2.25, 0.5, 1, 0.25</td>
<td>0, 0, 0, 0</td>
</tr>
</tbody>
</table>

**Grape Insects:**

_Beware—grape berry moth lurks in northwest vineyards_

We have found grape berry moth (GBM) infestations in northwest vineyards. In the recent past, we have felt our area did not harbor this insect as a major vineyard pest as we have seen in other parts of the state. This information is to remind growers/vineyard managers that this pest is here, and the larvae are infesting clusters even if there are no adult moths in the pheromone traps! The traps do not seem to be a good indicator of GBM infestation in the northwest. Scouting for infestation is a must for all northwest vineyards.

Grape berry moth is a lepidopteran pest that is native to the U.S. and is commonly found in wild grape, commercial and backyard vineyards. First generation moths emerge from overwintering pupae before grape bloom. Males and females mate, and females lay eggs on grape foliage. Larvae hatch and feed on the clusters. Webbing in and around clusters is a good indication of GBM, but growers/vineyard managers should find and correctly identify larvae to ensure these infestations are indeed GBM. The second generation larvae also feed on the clusters, and this generation leaves telltale holes or feeding sites in the growing berries. Larvae feed inside the berries or clusters and can be difficult to target them with insecticides. These pests also predispose eaten berries to Botrytis and sour rots; these feeding sites also attract other pests such as fruit flies, ants, and the dreaded yellow jackets.

At this time, growers/vineyard managers should be sampling his/her clusters looking for GBM larvae, webbing, and feeding holes. We have noted the majority of the damage along the vineyard borders, but scouts should also look at the vineyard interior. There are not many options once the infestations have occurred, so the primary reasons for scouting at this time is to know your hot spots to better plan a GBM control strategy for next year. As mentioned above, sour rot and Botrytis often follow GBM infestation, and with the recent rain, growers/vineyard managers should check infestation sites for onset of these pathogens.

For more information on grape berry moth _[Click here.](#)_

**Grape Insects:**

_Two Spotted Spider Mites_

Two spotted spider mites (TSSM) have been showing up in grape vineyards with these hot, dry conditions. These mites feed on ground cover, but as these plants dry up later in the summer, they move up to feed on the grape foliage. If populations increase to high levels, TSSM can cause severe damage to wine grapes. TSSM feed on the grape leaves, and this feeding causes yellowing and eventually bronzing. TSSM bronzing is a grayish bronze color, and they are called spider mites because they create lots of webbing on the leaves. Grape varieties with thin-leaves...
are most susceptible to TSSM, and these mites become more of a problem in hot and dry seasons—like this year! TSSM also cause more damage to vines that are under water stress. The most effective method of control is to protect predatory mites, and biological control can be successful if there is one predatory mite per 10 TSSM. Growers/vineyard managers should keep in mind that pyrethroid insecticides tend to ‘flare’ TSSM because they kill the predatory mites. In most years, a miticide is not warranted in grapes. However, if populations reach 5 mites/leaf with no predators in sight, growers may need to use a miticide. During heavy rains TSSM are easily washed off foliage so before growers apply a miticide they should go out and check for mites again.

Additional Notes:

AVAUNT IS LABELED FOR USE ON GRAPE

Although the Avaunt label is a bit late for stone fruit growers this year, this product is now labeled for both stone fruit and grapes. Avaunt is in the oxadiazine class, and it works to kill insects by preventing sodium ion entry into nerve cells. Insects are first paralyzed, and then are killed by this product. This product works primarily through ingestion, but there is some activity through the insect cuticle. Therefore, good coverage of the crop is necessary.

This product does not last long in the environment and becomes rainfast quickly. In grapes, Avaunt is labeled for grape leaffolder and Japanese beetle at 2.5-6.0 oz/acre, and for grape berry moth and suppression of leafhoppers at 5-6oz/acre. No more than two applications of Avaunt can be made per season, and no more than 12 oz per acre can be used. The minimal spray interval is 21 days.

The report is a summary of weekly scouting from winegrape and juicegrape vineyards in southwest and northwest 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: Karen Powers and Steven Van Timmeren except where noted.