Weekly Vineyard IPM Scouting Summary  
Report for the week of September 6, 2007  
Southwest Michigan

**Grape Berry Moth:**

<table>
<thead>
<tr>
<th>Site</th>
<th>Variety</th>
<th>Average Number of GBM in Traps</th>
<th>Percent Clusters Infested With GBM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Average of 4 Traps Per Site)</td>
<td>(25 Clusters Scouted at 4 Locations at Each Site)</td>
</tr>
<tr>
<td>Allegan</td>
<td>Chardonnay</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Berrien 1</td>
<td>Vignoles</td>
<td>4.3</td>
<td>8.8</td>
</tr>
<tr>
<td>Berrien 2</td>
<td>Concord</td>
<td>6</td>
<td>4.3</td>
</tr>
<tr>
<td>Van Buren</td>
<td>Concord</td>
<td>5.3</td>
<td>2</td>
</tr>
<tr>
<td>2007 Average</td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2006 Average</td>
<td></td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2005 Average</td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2004 Average</td>
<td></td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

**Japanese Beetles:**

** JB populations dropped at the Allegan site this week. At this point in the season the only danger posed by JBs are those that are feeding on newly established vines, which can be defoliated quite quickly by relatively few beetles. If you have young vines that have grown a lot recently due to the rains, make sure to check them for JBs since JBs will preferentially seek out young leaves before feeding on older, tougher leaves.

** Other Notes:**

** Multi-colored Asian ladybeetles (MALB) are still being seen here and there on grape foliage, but so far they've only been found feeding on extremely ripe Aurore grapes at the Trevor Nichols Research Complex (TNRC) in Fennville, MI. As we head into late September watch for MALBs to start aggregating if we get some warm days following cool days.

** Quite a few fruit flies are showing up in the Vignoles grapes at the Berrien 1 site. The larvae are feeding on berries infested with sour rot and phomopsis. As a result, many of these diseased berries are being hollowed out.

** Ants have been seen on grapes at all four sites. At the two Concord sites they are feeding on cracked berries, while at the Vignoles and Chardonnay sites they are feeding on diseased berries. For more information on ants [Click here](#).
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
Grape Insects:

The Big Caterpillars of Summer
Duke Elsner, Regional Grape and Wine Agent, MSUE

Three species of sphinx moth caterpillars (also known as hornworms) are commonly found in NW Michigan vineyards this time of year. The official names of these are the Pandora sphinx, Achemon sphinx, and hog sphinx.

The larvae (caterpillars) of the Pandora sphinx and Achemon sphinx are very similar in appearance. There are several color “forms” of larvae, with base colors ranging from bright green to orange, sometimes pinkish, some even a deep chocolate brown. There is always a series of white blotches along the sides of the larva. Young larvae have long and slender horns on the tail end, which sometimes curl. About mid-way through the larva’s growth this horn is lost, and an eye-spot pattern then appears on the tail end. Full-grown larvae may be over 4 inches in length.

The larva of the hog sphinx looks much more like the typical hornworms found on tomato plants. The base color is a dull green, there are several light diagonal stripes on each side, and a stout horn on the tail end. Some specimens have a yellow or orange shading along the back. A full-grown hog sphinx larva is about 2 inches in length.

Once the larva is done feeding it burrows into the soil to pupate. The winter is passed in this stage, and the next generation of adult moths appears in the following summer. The adult moths feed on the nectar of deep-throated flowers in the evening, hovering near flowers like hummingbirds.

These species are heavily parasitized by beneficial wasps and flies, keeping their numbers at a tolerable level in established vineyards. They can be quite a problem on young vines, however, as a single larva can completely defoliate a small vine. They are very susceptible to B.t. sprays (such as Dipel) and several other insecticides, but it may be just as productive to hand-pick and destroy them if the numbers are low.

JAPANESE BEETLE ROLL CALL:

We have observed Japanese beetles in northwest MI in many more areas this year than in 2006. The hot spot near Bodus Road in Leelanau County still remains just that - the place to be if you are a Japanese beetle. However, we have found them in the region in the following locations:

1) The M-204 corridor in Leelanau Co., in managed grapes
2) Zimmerman Road in G.T. Co, in managed grapes
3) The southern half of Antrim Co., in sweet cherry
4) The NMC campus in Traverse City, in wild grape
5) M-22 south of M-204 in Leelanau Co., in managed grapes and apples

Japanese beetles

Pandora sphinx adult, green and orange pandora sphinx larva
Achemon sphinx adult and larva
Top: Hog sphinx larva
Bottom: Hog sphinx larva with braconid parasitoid cocoons
SUN SCALD INJURY

We have been seeing sun scald on berries in many vineyards across the region, due to the hot, dry summer. This condition has become much more of a shock to see than when we first observed it. Note dramatic picture below:

Sun scald injury on Chardonnay

Additional Notes:

Last “First Friday” IPM meeting of 2007 – September 7, L. Mawby Vineyards:
Our last vineyard IPM meeting for 2007 is scheduled for 3 to 5 PM on Friday, September 7th at L. Mawby Vineyards in Bingham Township of Leelanau County. We will meet along the entrance drive, on the east side of Elm Valley Road, about ½ mile north of Hilltop Road. Larry’s vineyards are quite different from most in our area, and well worth your time to come out and see some interesting alternative practices. You’ll see some unfamiliar insects, I assure you.

Current Growth Stages: Chardonnay-Leelanau Peninsula

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All photos: Karen Powers and Steven Van Timmeren except where noted.