**Grape Berry Moth:**

** One adult male grape berry moth was caught in a pheromone trap at the Trevor Nichols Research Complex in Fennville Michigan. It probably emerged with the warm weather over the weekend. If you’re planning on putting up traps for GBM now is the time to do it.

** If you're interested in testing out the new grape berry moth growing degree day model make sure you record when wild grape blooms (50% of the flowers are open on 50% of the clusters) around your vineyards. You’re going to need this information when looking at the degree day information later in the season. Rufus Isaacs discusses the details of the model in his article on the second page.

**Grape Flea Beetle:**

** The warm weather over the weekend has pushed many buds out to the point where they are susceptible to flea beetle and cutworm damage. Now is the time to be looking for these insects and their damage in your vineyards. Flea beetles are an iridescent black/dark blue beetle that are easy to spot feeding on the grape buds. They chew holes in the buds and are visible during the day time, which is different from cutworms which will eat the whole bud and only come out at night. Remember that some flea beetle nibbling won't hurt the buds, so don't be afraid to hold off on an insecticide spray. If you are worried about the flea beetles and are thinking of spraying for them, make sure to scout the interior and borders of your vineyards first. Flea beetles frequently are more common at the borders than on the interiors so you might be able to get by with a border spray instead of spraying your whole vineyard. Once the shoots get past bud burst and into the 1-3 inch range the danger from flea beetles and cutworms is diminished significantly.

**Grape IPM Evening Meetings:**

** This past Thursday night was the first grape IPM evening meeting of the year. It was good to see everyone again and we hope to see everyone at the evening meeting next month at the Bob Dongvillo farm.

** Upcoming Evening Grape IPM Meetings To Put On Your Calendar:**

** May 21:** Bob Dongvillo farm, Scottdale (6-8pm, free dinner, 1 RUP credit)
** June 25:** Tim Sepalla farm, Lawton (6-8pm, free dinner, 1 RUP credit)
** July:** No evening meeting in July due to Viticulture Day on July 29
** August 13:** Lemon Creek Winery, Berrien Springs (6-8pm, free dinner, 1 RUP credit)
Grape berry moth typically has 3 generations per season in southern Michigan, and predicting when these occur can help growers target management at the right time to reduce infestation by this pest. The first generation is usually at a low level but many growers target this generation with a 10-day post bloom insecticide which is a good timing to control this first generation. In vineyards with this pest, populations build through each generation and can reach high abundance immediately before harvest causing yield loss, disease, and the risk of crop contamination. Prevention of this mid-late season infestation is most important, and accurate timing of controls is an essential aspect of effective management of grape berry moth.

The MSU degree day model for grape berry moth has been developed to predict the start of egglaying in the second and third generations in southwest Michigan vineyards. It uses growing degree days (GDD) accumulated after wild grape bloom, so it is important to record the date of wild grape bloom near vineyards to run this model. This insect takes 810 GDD (base 47F) to complete a generation, and we have found that egglaying starts to increase at around 810 and 1620 GDD after wild grape bloom for the second and third generations, respectively.

If vineyard pest history and cluster scouting indicate that protection from berry moth is needed, this model can be used to predict when egg-laying by the second and third generation are starting. For insecticides that work best when applied just before egg-hatch such as insect growth regulators, application at 810 and 1620 GDD are expected to provide good control of this pest. For example, MSU research trials in high pressure vineyards during 2008 found excellent control of berry moth using Intrepid (8 oz/acre) applied at these GDD timings. For insecticides with shorter residual control such as most broad-spectrum contact insecticides, another application will likely be needed after the 810 GDD timing to provide sufficient coverage of the mid-season generation.

### RUNNING THE MODEL

**Step 1.** Record when wild grape blooms near your vineyard, typically in early June. The date to record is when approximately 50% of the flowers are open on approximately 50% of the wild grape clusters.

**Step 2.** Go to www.enviroweather.msu.edu and select the nearest weather station to your farm. Select the Fruit Pages and then select Grape Berry Moth model in the Insects section. A new page will appear with a table that has dates and daily degree day totals on the left, and wild grape bloom date across the top.

**Step 3.** Look across the top of the table for the date(s) when wild grape bloomed on your farm. Look down the table for the row where the table cell turns red, indicating 810 (and later 1620) degree days after wild grape bloom (base 47F). These red shaded boxes indicate the timing of the start of egglaying by the second and third generations of grape berry moth.

**Step 4.** Make management decisions. The model provides information on timing for the start of mid- and late-season berry moth generations, but not on the need for treatment. Based on pest scouting and vineyard history, make decisions about the need for an insecticide application.

To see how the model looks using last year's weather data from SWMREC 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