A Few Things To Keep In Mind In Disease Management

All the grape varieties grown in Wisconsin are susceptible to at least one or more of the five major fungal diseases. Often grape growers think about protecting their grape crop from fungal diseases by applying fungicides. It is also very important to protect non-bearing vines from fungal diseases and so be prepared to spray new plantings.

Take some time to become familiar with the five major fungal pathogens. Learn what weather conditions can result in potential infection. Also learn how to identify the symptoms of each fungal pathogen on different tissues of the grape plant. Take some time to learn about the specific fungicides that you are using and what spectrum of disease control they provide. Each grape variety has some resistance and susceptibility to different fungal pathogens. Do you know what fungal diseases your grape variety is resistant to or susceptible to? If not, look at page 36 of the Midwest Small Fruit and Grape Spray Guide. As an example, if growing La Crescent, what would be a concern right now as far as fungal pathogens--downy mildew since La Crescent is highly susceptible to downy mildew and downy mildew infections need free moisture and infections can occur at cool temperatures 54° F. Spend some time in your vineyard and scout, identifying then applying management to control fungal diseases before they become bigger problems down the road.

I can not stress enough the importance of protecting your grape crop during the period of development from immediate pre-bloom through 4 weeks after bloom. This is the period when your grape crop is most susceptible to fungal pathogens. Remember even when berries become resistant to many of the major fungal pathogens 4 to 5 weeks post bloom, that other grape tissues, leaves, tendrils, and shoots still need to be protected. You should rely heavily on scouting and monitoring your vineyard 4 to 5 weeks post-bloom to determine if fungal pathogens are present. Also pay attention to weather patterns. Depending on presence or absence of fungal pathogens and weather patterns, you may need to shorten or lengthen your spray interval.

Want More Information on Grape Pests?

Look through past issues of vineyard IPM scouting reports
Use the subject index to find pictures and articles on grape pests
http://door.uwex.edu/agriculture/
Are you noticing blind nodes on your spurs?

A bud that results in no shoot produced is termed a blind node. The bud may have been damaged by winter cold, spring frost events, or potentially insect pests like grape flea beetle or climbing cutworms. At the vineyard trial block at the Peninsular Research Station I have noticed a lot more blind nodes on spurs this year than in seasons past. If you are keeping track of bud counts when you dormant prune, then you may consider doing a few recasts now that shoots have pushed. Especially consider doing this if you notice a lot of blind nodes. For those of you conducting shoot thinning, keep a tally of shoots emerged to buds (nodes) left at dormant pruning. You may consider doing less shoot thinning if your vines have a lot of blind nodes on the spurs.

Blind nodes on Marquette at the Peninsular Agricultural Research Station on May 27, 2013.

Phylloxera? - Take the time to identify pest before jumping to conclusions!

In late May it is not unusual to see a number of galls appear on grapes from a number of different Midges. The galls formed by Midges are usually not of economic importance to the grape crop. Phylloxera typically appears near or at bloom in Wisconsin. From the picture (left) it is difficult to tell what caused the galls. Take a look at the next page to see Phylloxera leaf galls.
Mature Phylloxera leaf galls contain a female and eggs.

Inside a mature Phylloxera leaf gall

Unsure if you have Phylloxera? Take the time to disect a gall. Leaf galls formed by Midges will not contain a female and multiple eggs like the Phylloxera galls (below).
Development of wine grapes in the grape variety trials at the Peninsular Agricultural Research Station (PARS) Sturgeon Bay, WI and West Madison Agricultural Research Station (WMARS), Madison, WI

Brianna at PARS 5.20.2013

Foch at PARS 5.20.2013

Frontenac at PARS 5.20.2013

Brianna at WMARS 5.20.2013

Foch at WMARS 5.20.2013

Frontenac at WMARS 5.20.2013
Development of wine grapes in the grape variety trials at the Peninsular Agricultural Research Station (PARS) Sturgeon Bay, WI and West Madison Agricultural Research Station (WMARS), Madison, WI

La Crescent at WMARS 5.20.13

La Crosse at WMARS 5.20.13

Marquette at WMARS 5.20.13

La Crescent at PARS 5.20.13

La Crosse at PARS 5.20.13

Marquette at PARS 5.20.13

2013
Development of wine grapes in the grape variety trials at the Peninsular Agricultural Research Station (PARS) Sturgeon Bay, WI and West Madison Agricultural Research Station (WMARS), Madison, WI

Brianna at PARS 5.27.2013

Brianna at WMARS 5.28.2013

Foch at PARS 5.27.2013

Foch at WMARS 5.28.2013

Frontenac at PARS 5.27.2013

Frontenac at WMARS 5.28.2013
Development of wine grapes in the grape variety trials at the Peninsular Agricultural Research Station (PARS) Sturgeon Bay, WI and West Madison Agricultural Research Station (WMARS), Madison, WI

La Crescent at WMARS 5.28.13
La Crescent at PARS 5.27.13
La Crosse at WMARS 5.28.13
La Crosse at PARS 5.27.13
Marquette at WMARS 5.28.13
Marquette at PARS 5.27.13
Degree Day\(^1\) (base 50) Accumulation from April 1 to May 27, 2013 at Peninsular Agricultural Research Station in Sturgeon Bay, WI

<table>
<thead>
<tr>
<th>Date</th>
<th>2013</th>
<th>2012</th>
<th>5 Year Average(^2)</th>
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<tbody>
<tr>
<td>4/1 to 5/27</td>
<td>198</td>
<td>296</td>
<td>259</td>
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\(^1\)Modified method.  
\(^2\)Average from 2008 to 2012.

Degree Day\(^1\) (base 50) Accumulation from April 1 to May 27, 2013 at West Madison

<table>
<thead>
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<th>Date</th>
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<th>5 Year Average(^2)</th>
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<tr>
<td>4/1 to 5/27</td>
<td>367</td>
<td>498</td>
<td>442</td>
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\(^1\)Modified method.  
\(^2\)Average from 2008 to 2012.

Accumulated degree days\(^1\) (base 50) for the month of March in Sturgeon Bay and Madison, WI.

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<th>Sturgeon Bay WI</th>
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<td>GDD (base 50, ceiling 86)</td>
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<td>2011</td>
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<tr>
<td>2004</td>
<td>49 11</td>
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</table>

\(^1\)Modified method.  
\(^2\)Data from http://www.doa.state.wi.us/degreedays/

Please scout your vineyards on a regularly scheduled basis in an effort to manage problem pests. This report contains information on scouting reports from specific locations and may not reflect pest problems in your vineyard. If you would like more information on IPM in grapes, please contact Dean Volenberg at (920)746-2260 or dean.volenberg@ces.uwex.edu