Look Closely and Check Your Records Before Taking Action

A couple of weeks ago while scouting I came upon some newly planted grape plants that had some yellow spots on the leaves (Figure A). Upon closer inspection the symptomology looked like an early infection of downy mildew. Early downy mildew symptoms are yellow, oily spots on the upper surface of the leaves (Figure B). Looking back at the climatic conditions the past 10 days suggested that conditions were conducive for a downy mildew infection. However, I was not convinced that this was downy mildew. The grape cultivar displaying the symptoms was Marquette. A quick glance of Table 4 on page 36 of the 2014 Midwest Small Fruit and Spray Guide suggested that Marquette is only slightly susceptible to downy mildew. Other grape cultivars in the vineyard were not displaying the symptoms, especially the highly susceptible downy mildew grape cultivar LaCrescent. Next, I checked the spray records and was convinced that the previous cover spray would have afforded the plants protection from a downy mildew infection. Further, the spray records showed that Para-zone had been sprayed on the newly planted vineyard.

Symptoms resembling a downy mildew infection on a newly established Marquette grapevine (A) and for comparison a downy mildew infection (B).
Parazone is a broad-spectrum burn down herbicide most commonly known as Paraquat. Also, I noted that the leaves showing symptoms were those closest to the ground. This convinced me that while spraying the row middles that some drift had occurred onto the grape plants. I did a follow up a week latter and some of the yellow spots had turned bronzy-brown (Figure C).

A Marquette grapevine showing leaf symptoms of Paraquat injury. Early symptoms of Paraquat injury look very similar to the early symptoms of a downy mildew infection.
Phylloxera

This week there were some questions on the WGGA google chat on how to manage phylloxera. There are a number of insecticide options and they include, Assail 30SG, Danitol 2.4EC, and Movento 2SC. Although a number of grape cultivars are susceptible to phylloxera, Frontenac, Frontenac blanc, and Frontenac gris are very susceptible. This week I observed leaf galling by phylloxera on Frontenac, Frontenac gris, Marquette, MN 1258 and MN 1220. If you want to manage phylloxera be sure to start your spray program as soon as galls appear.
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 6.30.2014

Foch at PARS 6.30.2014

Frontenac at PARS 6.30.2014

Brianna at WMARS 6.30.2014

Foch at WMARS 6.30.2014

Frontenac at WMARS 6.30.2014
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 PARS 6.30.14
La Crescent at WMARS 6.30.14
La Crosse at PARS 6.30.14
La Crosse at WMARS 6.30.14
Marquette at PARS 6.30.14
Marquette at WMARS 6.30.14

2014
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
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 7.7.14
La Crosse at WMARS 7.7.14
Marquette at WMARS 7.7.14

La Crescent at PARS 7.7.14
La Crosse at PARS 7.7.14
Marquette at PARS 7.7.14

2014
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

Petite Pearl at PARS 7.7.14

Petite Pearl at WMARS 7.7.14

Aromella at PARS 7.7.14

Leon Millot at PARS 7.7.14

Vignoles at PARS 7.7.14

Noiret at PARS 7.7.14
Development of wine grapes in the grape variety trials at the Peninsular Agricultural Research Station (PARS) Sturgeon Bay, WI

MN 1189 at PARS 7.7.14

MN 1235 at PARS 7.7.14

MN 1200 at PARS 7.7.14

MN 1258 at PARS 7.7.14

MN 1220 at PARS 7.7.14

Wild grape at PARS 7.7.14
Degree Day¹ (base 50) Accumulation from April 1 to June 30, 2014 at Peninsular Agricultural Research Station in Sturgeon Bay, WI

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<th>2013</th>
<th>5 Year Average²</th>
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¹Modified method.
²Average from 2009 to 2013.

Degree Day¹ (base 50) Accumulation from April 1 to June 30, 2014 at West Madison

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¹Modified method.
²Average from 2009 to 2013.

Accumulated degree days¹ (base 50) for the month of March in Sturgeon Bay and Madison, WI.

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¹Modified method.
²Data 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