Vineyard IPM Scouting Report for week of 24 June 2013
UW-Extension Door County and Peninsular Agricultural Research Station

Downy Mildew

Most of Wisconsin has been experiencing wet and humid conditions over the past few days. These conditions are conducive for downy mildew infections. Growers in the southern part of the state should be concerned with protecting young fruit clusters, whereas, growers in the north should be concerned with protecting flowers. There are a number of effective fungicides that will provide protection to downy mildew. Even if you have applied a fungicide, continue to scout vineyards for signs of infection.

Young clusters and flowers are highly susceptible to the five major diseases, downy mildew, powdery mildew, black rot, Phomopsis, and anthracnose. Remember that all these diseases, except powdery mildew need, “free water” for infection. The temperatures and frequent rainfall events have provided the conditions necessary for infection for most of these fungal pathogens. Also for northern vineyards that are just entering bloom, growers should also be concerned for infection from botrytis on senescing flowers.

If you have found active downy mildew infections in your vineyard, then you will need to apply a fungicide with post-infection activity. Your options include Ridomil Gold MZ, Ridomil Gold Copper, or phosphorous acid fungicides such as ProPhyt or Phostrol. Pay attention to pre-harvest intervals; Ridomil Gold MZ and Ridomil Gold Copper have a 66 and 42 day pre-harvest intervals, respectively. In comparison, the phosphorous acid products such as ProPhyt and Phostrol have a 0 day pre-harvest interval.

The phosphorous acid compounds provide both protective activity and post-infection activity. According to research by Wayne Wilcox, phosphorous acid fungicides applied 3 to 8 days before an infection period provide good to excellent protective activity. The higher label rate provides greater persistence or protective activity. The phosphorous acid compounds applied 3 to 4 days post-infection results in reducing lesions and also reduces spore production. Wayne’s research also demonstrated that lesion expansion and spore formation can be controlled by increasing the rate of phosphorous acid materials from 0.3 to 0.6% or using a follow-up application of the lower rate after 5 days.

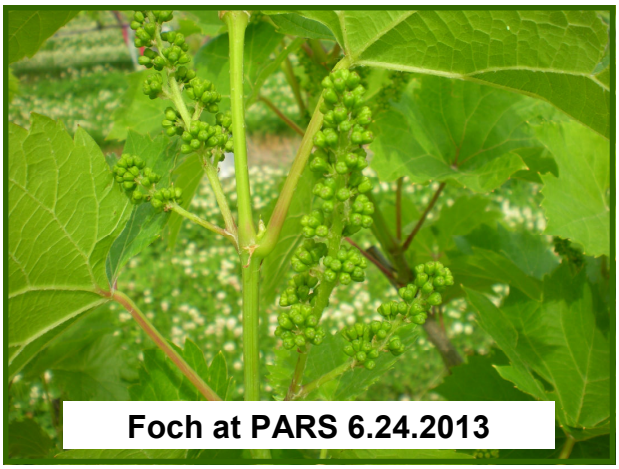
To delay selecting for downy mildew resistance limit the use of strobilurins (Abound, Pristine, Sovran). Limit the use of these products to two applications per growing season. The best time to use these fungicides is when downy mildew populations are low which is early in the season – immediate pre-bloom to bloom periods. To further delay the development of fungicide resistance, tank mix strobilurins with unrelated fungicides (copper, mancozeb, captan). Do not apply a strobilurin fungicide if you have active downy mildew infections, as such practice puts tremendous selection pressure on downy mildew populations and likely will result in selecting resistant downy mildew populations.

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

2013

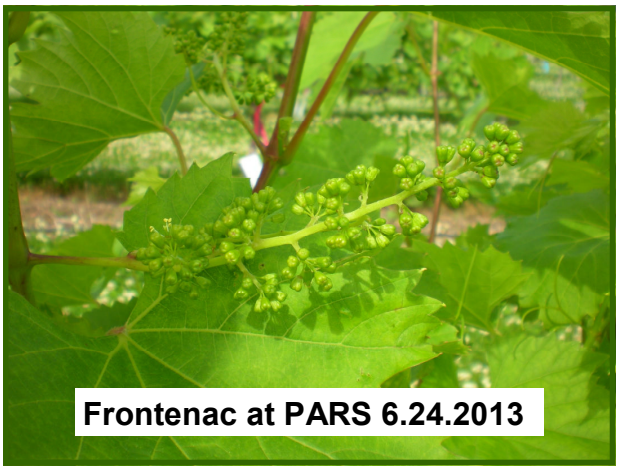
Brianna at PARS 6.24.2013

Brianna at WMARS 6.24.2013

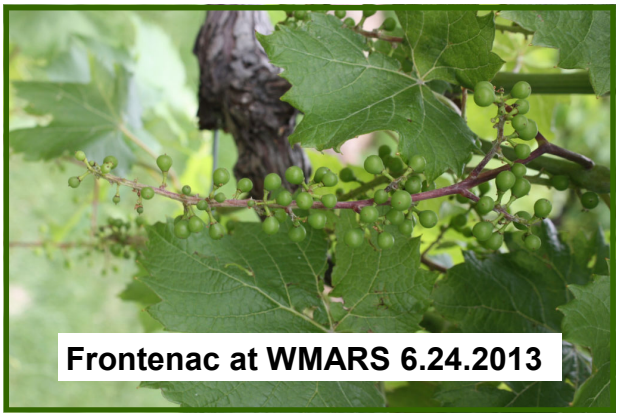


Foch at PARS 6.24.2013

Foch at WMARS 6.24.2013



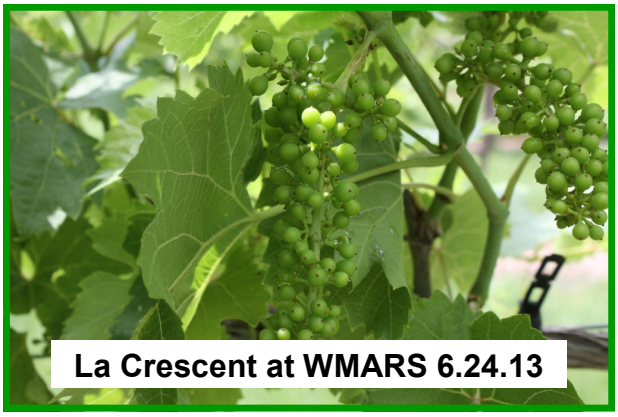
Frontenac at PARS 6.24.2013



Frontenac at WMARS 6.24.2013

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 PARS 6.24.13

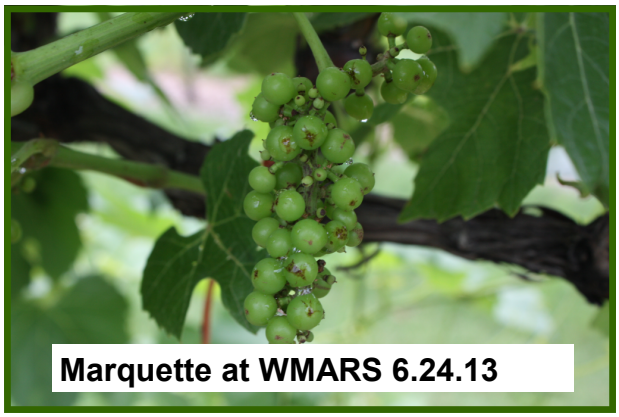


La Crescent at WMARS 6.24.13

La Crosse at PARS 6.24.13

La Crosse at WMARS 6.24.13

Marquette at PARS 6.24.13



Marquette at WMARS 6.24.13

2013

Degree Day[1] (base 50) Accumulation from April 1 to June 23, 2013 at Peninsular Agricultural Research Station in Sturgeon Bay, WI

Date	2013	2012	5 Year Average[2]
4/1 to 6/23	493	695	607

[1]Modified method.
[2]Average from 2008 to 2012.

Degree Day[1] (base 50) Accumulation from April 1 to June 23, 2013 at West Madison

Date	2013	2012	5 Year Average[2]
4/1 to 6/23	814	1002	926

[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.

Year	Madison WI	Sturgeon Bay WI
	GDD (base 50, ceiling 86)	
2013	1[2]	0
2012	252	106
2011	13	3
2010	72	38
2009	51	12
2008	1	0
2007	90	41
2006	22	7
2005	40	9
2004	49	11

[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