Vineyard IPM Scouting Report for week of 13 May 2013
UW-Extension Door County and Peninsular Agricultural Research Station

Frost Damage and Disease Management

Some vineyards may have experienced some frost damage this past week resulting in damage or death to primary buds. How does this impact your disease management plan? If your vineyard experienced a freeze event, the vines will now have a mix of primary and secondary buds producing flower clusters. This will extend the bloom period, with flower clusters produced on primary buds flowering first followed by flower clusters produced from secondary buds. Depending on the climate conditions your vines experience, bloom could be extended over a period of two weeks. Remember the pre-bloom and 4 weeks post bloom are the most critical times to have your crop protected from fungal pathogens. So if your vineyard experienced a killing frost event that damaged primary buds, be sure to keep your crop protected with fungicides over the extended bloom period.

Does Long Cane Pruning Result in Delaying Bud Break?

There has been a lot of interest among growers on how to delay bud break to circumvent spring frost events. One idea to delay bud break is to long prune or leave spurs with more than 2 buds. The idea behind this concept is that the terminal bud of the spur will achieve bud burst first. That terminal bud controls how the other buds develop further down on the spur. As the danger of frost becomes less of a worry as springtime progresses, the spur is cut back to typically a two bud spur. Now a new terminal bud takes over on the spur. All this double pruning of course takes extra labor and so the question is: does double pruning work to delay bud break? At the West Madison varietal trial last spring they pruned some canes to either 3 bud or 10 bud spurs to determine if bud break was delayed. They repeated that same pruning process this year. In 2012, they observed that long pruning resulted in bud break occurring first at the terminals. Buds closest to the cordon were delayed. In comparison, 3 bud spurs were not delayed. In 2013, they observed that long pruning resulted in bud break occurring pretty uniformly along the length of the cane.

Does Double Pruning Result in Delaying Bud Break? *cont.*

In other words, buds near the cordon were breaking and so were the terminal buds at about the same time. Compared to the 3 bud spurs, bud break was not delayed. So does long pruning delay bud break? Yes and No. In the trial at West Madison the results are different from year to year. This is similar to what growers have experienced in their own vineyards when comparing double pruning to canes pruned once to 2 bud spurs. The year to year variation in the trial would make it extremely difficult to recommend double pruning, especially to growers with significant acres of vines.

Terminal bud of Marquette that was long pruned to 10 buds (left). Compare to photograph below.

Basal buds of Marquette that was long pruned to 10 buds (left). Compare to photograph above. It appears from the picture that terminal buds (above) have progressed further in development compared to basal buds.

Thank you to Brian Emerson for pictures and sharing his observations.

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 5.13.2013

Brianna at WMARS 5.13.2013

Foch at PARS 5.13.2013

Foch at WMARS 5.13.2013

Frontenac at PARS 5.13.2013

Frontenac at WMARS 5.13.2013

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

2012

Brianna at PARS 5.14.2012

Brianna at WMARS 5.14.2012

Foch at PARS 5.14.2012

Foch at WMARS 5.14.2012

Frontenac at PARS 5.14.2012

Frontenac at WMARS 5.14.2012

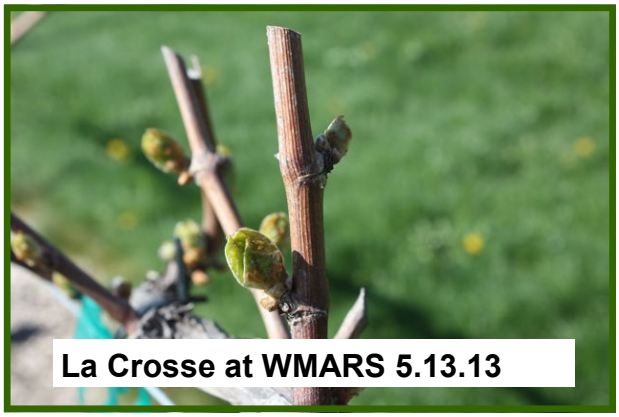
Development of wine grapes in the grape variety trials at the Peninsular Agricultural Research Station (PARS) Sturgeon Bay, WI and West Madison Agricultural Research Station (WMARS), Madison, WI

2013

La Crescent at PARS 5.13.13

La Crescent at WMARS 5.13.13

La Crosse at PARS 5.13.13



La Crosse at WMARS 5.13.13

Marquette at PARS 5.13.13

Marquette at WMARS 5.13.13

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

2012


La Crescent at PARS 5.14.12


La Crescent at WMARS 5.14.12


La Crosse at PARS 5.14.2012


La Crosse at WMARS 5.14.2012


Marquette at PARS 5.14.2012


Marquette at WMARS 5.14.2012

Degree Day[1] (base 50) Accumulation from April 1 to May 12, 2013 at Peninsular Agricultural Research Station in Sturgeon Bay, WI

Date	2013	2012	5 Year Average[2]
4/1 to 5/12	104	130	130

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

Degree Day[1] (base 50) Accumulation from April 1 to May 12, 2013 at West Madison

Date	2013	2012	5 Year Average[2]
4/1 to 5/12	182	254	235

[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