

Vineyard IPM Scouting Report for week of May 25, 2009
UW-Extension Door County and Peninsular Agricultural Research Station
Sturgeon Bay, WI

Grape Tumid Gallmaker

This Tuesday, while scouting a northeastern vineyard, red galls were found on the youngest leaves of the grape variety Frontenac. The galls were absent on Foch and Louise Swenson grape leaves, even though they were in the same block as Frontenac. The Frontenac and Foch grapevines were at similar stages of development with 3 to 4 leaves unfolded, but the shoot length of Frontenac was 6 to 8 inches, whereas the shoot length of Foch was 2 to 4 inches. Louise Swenson was just breaking bud at this time. On fully expanded leaves, there is little apparent damage to the leaves (top photo), the underside of the leaf reveals the red galls (middle photo). The galls were readily visible on young, unfolded leaves (bottom photo).

The galls found on Frontenac were caused by the grape tumid gallmaker. The galls are formed by the larvae that is within the gall feeding. Once the larvae have fully developed, they emerge from the galls and drop to the ground to pupate. Adults will emerge in 14 to 21 days. Adults are very small flies, measuring 2.5 mm (1/10 inch) long. The adults are brown to reddish and have plume like antennae and a single pair of wings. Identification of the adult is difficult because there are a number of similar gall flies throughout North America. The adults live for only about a day, and emerged, most likely in mid to late May in northeastern Wisconsin. There can be 2 to 3 generations per year.

Damage from grape tumid gallmaker is usually associated with grape leaves, although galls can appear on petioles and flower clusters. If galls are numerous, shoot vigor can be reduced, resulting in shoot breakage. Galls on leaves usually does not result in economic damage. Some reports suggest that yield is reduced less than 10% by leaf galls. There is the potential for economic damage when galling appears on flower clusters.

Management of grape tumid gallmaker is seldom undertaken unless infestations are heavy or the vineyard has a history of grape tumid gallmaker. Insecticide applications should be timed when larvae are just entering into the grape tissue. Tillage under the grapes can help destroy pupating grape tumid gallmakers.



Grape Development and Disease Management I (dormant through immediate pre-bloom)

In the table below are some suggestions for developing a disease management program for grapes. I have been asked several times for a simple disease management program for grapes—and to be honest there is not a cookbook formula for disease management. However, there are some guidelines to follow based on the specific stage of development of the grapevines. Remember, these are just guidelines and your vineyard may be very different. You should use all IPM strategies to reduce disease incidence, know the level of resistance or susceptibility of the different grape varieties in your vineyard, practice good vineyard sanitation, scout on a regular schedule, use cultural management (leaf thinning, hedging) to increase air flow through the grape canopy, and remove and destroy wild grapes growing near your vineyard. Remember to consider fungicide resistance management in your disease management. Fungicides in the same chemical class should not be used repeatedly for disease management. Sterol-inhibiting fungicides (Rubigan, Elite, and Nova) and strobilurin fungicides (Abound and Sovran) should not be used more than 3 to 4 times per growing season and not applied more than 2 to 3 times successively. Read and follow the label of all pesticides.

Early grape stages disease management guidelines.

Growth stage	Disease	Fungicide	Rate
Dormant	Phomopsis	Lime sulfur ^{1,2,3}	10 gal./acre in 100 gal. water
Shoot 1"	Phomopsis	Mancozeb ³	Mancozeb (3 lb/A)
	Phomopsis & powdery mildew	Mancozeb ³ + sterol-inhibiting fungicide	Mancozeb (3 lb/A) + Elite (4oz/A) or Rubigan (3 oz/A) or Nova (4 oz/A)
	Powdery mildew	Sulfur ¹	Flowable sulfur 6F (4 qt/A) or Wettable sulfur (8-10 lb/A)
Shoot 3 to 5"	Phomopsis & powdery mildew	Mancozeb ³ + sterol-inhibiting fungicide	Mancozeb (3 lb/A) + Elite (4oz/A) or Rubigan (3 oz/A) or Nova (4 oz/A)
	Powdery mildew	Sulfur ¹	Flowable sulfur 6F (4 qt/A) or Wettable sulfur (8-10 lb/A)
Shoot 10 to 12"	Phomopsis & powdery mildew	Same fungicides as shoots 3 to 5"	
Immediate Prebloom	Phomopsis, downy mildew, powdery mildew, & black rot	Abound or Sovran	Abound (10-15.5 fl. Oz./A) Sovran (4 oz./A)

¹Do not apply sulfur to sulfur sensitive grape varieties.

²Lime sulfur will not give 100% control of Phomopsis and other fungicides will be needed for season long control. There is conflicting evidence in University research results in regards to the efficacy of Lime sulfur on powdery mildew and black rot.

³Lime sulfur and Mancozeb are harmful to predatory mites.

How are well established mature grapevines developing in Sturgeon Bay, Wisconsin?

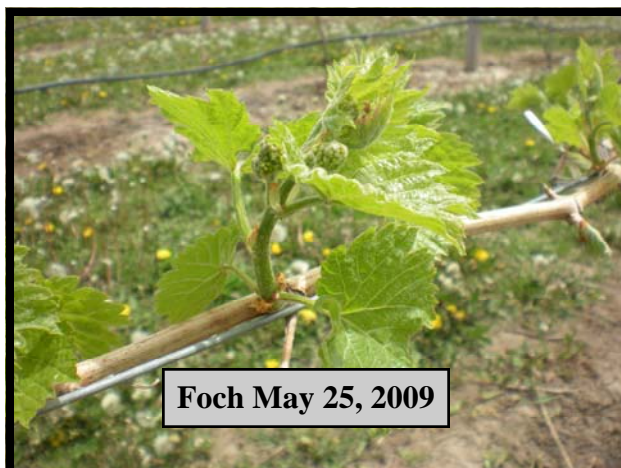


Foch May 25, 2009



La Crosse, May 25, 2009

How are well established mature grapevines developing in southwestern Kewaunee County, Wisconsin? The Parallel 44 vineyard is located 35 miles southwest of the Peninsular Agricultural Research Station.



Foch May 25, 2009



La Crosse, May 25, 2009

How are well established mature grapevines developing in Vernon County, Wisconsin?



Foch May 27, 2009



La Crosse, May 27, 2009

What stage are the second year grapevines at West Madison Agricultural Research Station?



Foch West Madison ARS May 26, 2009



La Crescent West Madison ARS May 26, 2009

What stage are the second year grapevines at Peninsular Agricultural Research Station?



Foch Peninsular ARS May 25, 2009



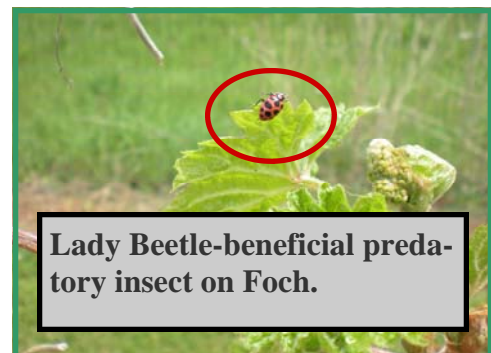
La Crescent Peninsular ARS May 25, 2009

Growing Degree Days¹ from April 1 to May 25

	2009	2008	5 Yr. average
Peninsular ARS	243	207	238
W. Madison ARS	355	299	366 ²

¹Modified method

²3 year average for West Madison ARS.



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