

**Vinews**  
**Viticulture Information News, Week of 29 June 2015**  
**Columbia, MO**



**Continued wet weather-Keep the following in mind!**

The weather outlook for next 7 days calls for 1- to 4- inches of rain and the long term forecast for the month of July is for above normal precipitation and below normal temperatures according to Mizzou Extension Climatologist Pat Guinan.

1. During extended wet periods with heavy rainfall the spray cover interval may need to be shortened depending on the pesticide products used and disease pressure. For example the TebuStar 45WSP label states “.....21 days in low to moderate disease pressure. Use a 14-day schedule when disease pressure is severe.”
2. Consider what fungicides were applied during the last spray cover. Systemic fungicides become diluted within the vine as the vine grows whereas protectant fungicides, for example Captan do not cover new vine growth that has emerged since the last cover spray.
3. Did your last cover spray have adequate time to dry before a rainfall event? If not, some of the fungicide likely was washed off the vine tissue surface.
4. A number of extended wetting periods have taken place in June which have provided conditions for infections for downy mildew, phomopsis, black rot and anthracnose. All of these diseases need free water for infection to occur.
5. Canopy management practices that include leaf pulling, combing, shoot thinning etc. all help speed cluster drying which helps reduce disease infection and helps increase spray coverage of clusters during spray operations.
6. If a disease outbreak occurs, select appropriate fungicides and use the high rate.
7. When extended forecasts predict extended wet periods consider using both a systemic and a protectant fungicide.
8. Spray coverage becomes more difficult as the canopy increases. A larger volume of water may be necessary to adequately cover the canopy.
9. Adjust fan/blower speed to adequately attain spray coverage, but not result in spray drift.
10. Consider scouting more during extended wet periods.

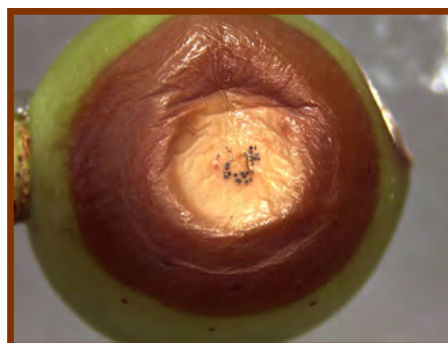
## Black rot

The wet rainy conditions coupled with ideal temperatures have provided the right conditions for black rot infections. Black rot only needs 6 to 7 hours of continuous tissue wetness for infection when temperatures are between 70 to 80° F. The grape berries are most susceptible to black rot infections the first few weeks after bloom. The period from immediate pre-bloom to 6 weeks post-bloom is when protecting the crop with fungicides is critical. Grape berries develop age-related resistance to black rot infections. Concord grapes acquire resistance approximately 6 weeks after bloom whereas *Vitis vinifera* cultivars have reduced susceptibility to black rot 6 to 7 weeks after bloom. Although berries attain some level of age-related resistance to black rot, the berries remain susceptible to infection up to veraison.

Managing black relies on reducing leaf wetness duration and reducing inoculum. Use canopy management and training systems that promote air circulation and expose the fruit to sunlight. Remove last season's grape clusters (mummy berries) from the vineyard as these serve as the primary inoculum source. Most all cultivars of grapes will require fungicide applications to avoid the development of black rot. Even grape cultivars that are slightly susceptible to black rot are at risk when leaf wetness and temperatures are conducive to black rot infections.



Black rot in early an advanced stages on the grape cultivar Norton 6.29.2015.



Pycnidia (black spots) in center of lesion will result in inoculum for secondary infections.

## From the Mailbag: What growers are seeing in the vineyard.

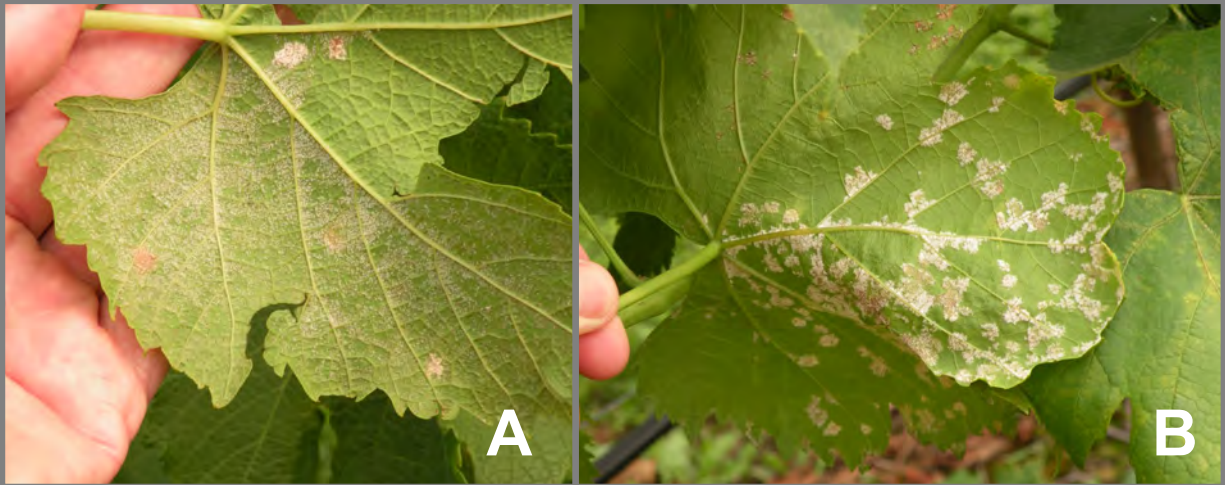


Recently I received a Norton vine that had defoliated very quickly in the vineyard. The leaves showed little symptomology except for some necrosis of the main veins. These leaves were incubated under moist conditions for 2-days. Patti Hosack of the Plant Diagnostic clinic identified some botrytis and phomopsis on the incubated leaf samples. However this would not explain the sudden defoliation of the vine. A bleached spur (A) was covered with pycnidia and these contained a unique conidia (spores) that resulted in the identification as *Pestalotiopsis* sp. *Pestalotiopsis* sp. can cause both fruit rots and trunk diseases. Upon dissecting the trunk we discovered a wedge shaped necrotic region that is characteristic of many trunk diseases including *Pestalotiopsis* sp. and *Phomopsis* (B). Further dissection of the trunk head area revealed a large necrotic area (C). The flat surface at the top of the trunk head (C) is from an old pruning cut.

To reduce the potential for infection from *Pestalotiopsis* sp. always prune during dry weather. If pruning during wet weather and large pruning cuts are needed, return during dry weather to perform the pruning.



From the Mailbag: What growers are seeing in the vineyard.



Diffuse Downy mildew (A) and the typical patched Downy mildew (B).



Long extended dark sunken necrotic lesions on the grape cultivar Brianna are characteristic of either Black rot or Phomopsis. To differentiate the two diseases examine the lesions with a 10X hand lens. If small black pycnidia (small black dots) are within the lesion, then the disease is Black rot. If pycnidia are absent then the disease problem is Phomopsis.

Phenology from Gasconade County



Chambourcin June 29, 2015.  
Gasconade County



Vignoles on June 29, 2015.  
Gasconade County

## Cumulative Growing Degree Days for the Seven Grape Growing Regions of Missouri from April 1 to June 29, 2015.

Region	Location by County	Growing Degree Days <sup>1</sup>		
		2015	2014	30 Year Average
Augusta	St. Charles	1486	1457	1378
Hermann	Gasconade	1404	1370	1320
Ozark Highland	Phelps	1531	1506	1421
Ozark Mountain	Lawrence	1576	1515	1467
Southeast	Ste. Genevieve	1523	1509	1417
Central	Boone	1390	1342	1334
Western	Ray	1346	1382	1302

<sup>1</sup>Growing degree days at base 50 from April 1 to June 29, 2015. Data compiled from Useful and Useable at <https://mygeohub.org/groups/u2u/tools>. Click on link below to determine growing degree days in your area.

**To determine the number of growing degree days accumulated in your area since April 1, click this link [Search for GDD at your location using this tool](#).**

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 573-882-0476 or volenbergd@missouri.edu

### Grape Berry Moth (GBM) Update

We are still a ways off from the third generation of GBM. As of June 30, 1,239 (Cape Girardeau County), 1,107 Boone County, and 1,025 (Gentry County) growing degree days have accumulated since May 15 at base 47. A total of 1,620 growing degree days need to accumulate before egg laying begins for the third generation.

Egg laying of the second generation likely started in Cape Girardeau on June 11, Boone County on June 20th and Gentry County on June 23.



Grape berry moth adult captured in a pheromone trap.