Finger Lakes Vineyard Update

IPM

It shouldn’t be any surprise that it’s easier to find symptoms of powdery, downy, and black rot infections this year compared to some others. Powdery mildew, in particular, is visible on clusters where perhaps spray intervals were a little too long, coverage was an issue, or, in one case I saw, the sprayer didn’t get turned on right away at the beginning of a row. If PM control on clusters is becoming an issue, it might be worth considering changing to materials with a different FRAC code during the first post-bloom sprays next year, when many of these infections are getting established. Berries are resistant to new PM infections at this point in the season, but existing infections can still lead to problems on the foliage as well as infections on shoots/canes that overwinter and increase inoculum for next year.

The pending arrival of veraison in early cultivars also means that growers should be prepared to ramp up measures to manage Botrytis and sour rot infections. If the wet conditions continue for the next several weeks, these diseases will become more and more of an issue as we head into harvest. The following write-up is from Alice Wise’s most recent newsletter from Long Island. My thanks to her for letting me reproduce it here.

**Botrytis bunch rot (BBR) control**

*Alice Wise, Viticulture Educator – CCE of Suffolk County*

Botrytis bunch rot commences with Botrytis infections. With additional wet weather, other types of fungi, bacteria and yeasts can join the party. BBR cannot be controlled through fungicides alone. Timely cluster zone leafing, and judicious cluster thinning are important too. Large clumps of clusters, clusters sandwiched within the first set of catch wires or clusters jammed up against the post are favorite targets of Botrytis. Once cluster rot of any kind is established, it helps to send a crew through to drop the worst of it.

This is a repeat article from previous years, written with emeritus pathologist Wayne Wilcox. See also the 2023 disease update from the Cornell grape pathologist Katie Gold. It is located here: [https://blogs.cornell.edu/flxgrapes/category/pest-management/](https://blogs.cornell.edu/flxgrapes/category/pest-management/).

The fungicide options:

- **Rovral.** Due to resistance in years past, Rovral should not be the workhorse of your program. However, if you've been giving it a rest, it may be useful when used on a limited basis. The use of an adjuvant improves control. Stylet Oil (assuming proximity to sulfur or captan sprays is not an issue) is a good choice. 7 d PHI (7-day preharvest interval).

- **Vangard/Inspire Super/Scala.** AI (active ingredient) – cyprodinil. Vangard is absorbed into the berries, so it's rainfast and has limited post-infection activity. Vangard is highly prone to resistance development. The label allows a max of two applications per season but keep it to a single spray each year unless you really get into a bind. Scala – same chemistry and mode of action as Vangard, the two have performed similarly in a limited head-to-head test. Inspire Super is a combo product with only 24% cyprodinil (vs. 75% cyprodinil in Vangard). 7 d PHI.
Elevate. Al – fenhexamid. Originally sold as a surface protectant, this does provide good protective activity within the berries. There is a resistance risk, not as significant as that for Vangard. The label allows a max of three applications per season, but European guidelines recommend just one, in rotation with unrelated materials. Can be applied up to the day of harvest.

The following materials are either organically approved or are considered low impact, i.e. most have a 4 hour reentry interval (REI), and zero day. preharvest interval (PHI).

**Oxidate 2.0/Oxidate 5.0.** Al – hydrogen dioxide, peroxycetic acid. Oxidate is a surface sterilant. In local trials, it burned out Botrytis sporulation; however, since the fungus is established in the flesh of the berry, new sporulation reappeared within a week. The temporary reduction in sporulation may help to reduce spread, particularly with repeat applications. OMRI approved. Oxidate can be tank mixed with a product for fruit flies, a combination that has had some success battling sour rot. For more information, see Cornell entomologist Greg Loeb’s insect management overview located here: [https://blogs.cornell.edu/flxgrapes/category/pest-management/](https://blogs.cornell.edu/flxgrapes/category/pest-management/)

**Botector.** Al – *Aureobasidium pullulans*. A biological fungicide, this has been useful in the LIHREC vineyard when wet fall weather starts up some Botrytis in the reds, particularly Merlot. The label cautions about tank mixing other fungicides as they may be detrimental to this organism. OMRI approved.

**PhD, Oso.** Al – polyoxin D salt. Oso is the OMRI-approved version. Labeled as a preventative for application at veraison and 7 days pre-harvest. Adjuvants may help coverage. Commercial experience suggests it may help with control of cluster rot. Might be useful as a rotational option.

**Double Nickel.** Al – *Bacillus amyloliquefaciens* strain D747. A biological material labeled for Botrytis and sour rot control. Wilcox results: in 2015, it did not provide good control of Botrytis. OMRI approved.

**ProBlad Verde (formerly Fracture).** Al – *Banda de Lupinus* albus doce, a polypeptide derived from germinating sweet lupine plants, it breaks down fungal cell walls. Labeled for Botrytis; has a 2(ee) for suppression of sour rot. Wilcox results: control of Botrytis bunch rot comparable to commercial standards. Also saw some activity vs. sour rot.

**Vacciplant.** Al – laminarin, a polysaccharide sugar that occurs naturally in plants. Classified as an SAR inducer, that is, it supposedly causes plants to turn on their own natural defenses. Recommended as part of an integrated program. Label states to tank mix with another registered material if pressure is heavy.

**Timorex Gold.** Al – tea tree oil, a naturally occurring product that is found in the tea tree, *Melaleuca alternifolia*. It degrades rapidly through volatilization with 90% gone within 24 hours so there is no forward protection. The label claims control of sour rot. There has been no testing in NY, proceed with caution. 12 hr REI. OMRI approved.

These materials are also labeled for use against Botrytis, but not mentioned in Alice’s article:

**Endura.** Al – boscalid. FRAC Group 7. Boscalid is one half of Pristine, and is sold alone as Endura. It provides very good control of Botrytis at the rate of 8.0 oz/A. Also susceptible to resistance if not managed properly, so rotation with other materials is critical. 14 d PHI.

**Luna Experience/Luna Sensation.** Al (for botrytis) – fluopyram. Both Luna products contain fluopyram (Sensation contains a slightly higher concentration of fluopyram than Experience), which has very good activity against botrytis. Fluopyram is also a FRAC Group 7 material, so do not use it before or after another from the same group. 14 day PHI for both.

**Miravis Prime/Switch.** Al – fludioxonil. Both Miravis Prime and Switch are combination products that include fludioxonil for botrytis control. Fludioxonil is also a FRAC Group 7 a.i. Miravis Prime has 14 day PHI, Switch has 7 day PHI.
Penn State Looking for Grower Feedback on Leafroll Virus

The PSU Wine and Grape Team is asking for grower participation in their *Grape Leafroll Virus Survey*, an important initiative aimed at understanding and combating the Grape Leafroll Virus (GLRV).

Grapevine leafroll-associated viruses (GLRV or Grape Leafroll Virus Disease) are widespread in many grape growing areas in the mid-Atlantic region. As the mid-Atlantic region becomes more heavily invested in cultivars of *Vitis vinifera*, which are most susceptible to the effects of these viruses, the disease caused by these viruses will inevitably become a more severe problem for our grape and wine industry. With this survey, we would like to investigate strategies that growers like you would use to control these viruses.

Please use the following link to access the survey: [https://pennstate.qualtrics.com/jfe/form/SV_8kT0ehBTZGuQEJ0](https://pennstate.qualtrics.com/jfe/form/SV_8kT0ehBTZGuQEJ0)

Your input and participation in this survey are crucial to the success of our collective efforts in combating GLRV. If you have questions about this survey, don't hesitate to get in touch with Claudia Schmidt, Assistant Professor of Agricultural Economics, Penn State ([czs786@psu.edu](mailto:czs786@psu.edu)).

Update on Pending USDA Disaster Declaration for May 18 Freeze

The USDA recently notified the NY Department of Ag & Markets that 14 counties in Vermont had been declared as primary disaster areas due to the May freeze events. The contiguous New York counties of Clinton, Essex, Rensselaer, and Washington are included in this designation.

Hopefully, this means that declarations for New York and the Finger Lakes will be coming soon as well. At a minimum, this will allow grape growers in the affected counties to apply for low-interest loans from the Farm Service Agency. At our Tailgate Meeting on Tuesday, Joann Rodgers, FSA director in Ontario County, also mentioned that it is a necessary step before any further assistance to growers could get considered for approval. I have not heard anything indicating that anything like that is in the works, but the disaster declaration would be the first step before anything else could get put together.

If you have specific questions about the disaster declaration, or FSA programs related to that, please contact your county FSA office.
Upcoming Events
Don’t forget to check out the calendar on our website (http://flgp.cce.cornell.edu/events.php) for more information about these and other events relevant to the Finger Lakes grape industry.

Tailgate Meeting
August 8, 2023 4:30 – 6:00 PM
Tango Oaks Vineyard
5557 NY Rt 414, Hector NY

Our next Tailgate Meeting will be on Tuesday, August 8 at Tango Oaks Vineyard in Hector. These meetings are a time for growers and the FLGP staff to discuss what’s going on in the vineyards, ask questions, and learn from each other. There is no set agenda for the most part, so bring questions, observations, thoughts, etc. and let’s talk about them. Each meeting has been approved for 1.25 pesticide recertification credits by DEC.

Here is the schedule for Tailgate Meetings for the rest of 2023:

- August 22, 2023: Fox Run Vineyards
  670 Route 14, Penn Yan, NY

Vineyard Equipment Rodeo
Sponsored by the NYS Wine Grape Growers
Wednesday, August 9 11:30 AM – 5:30 PM
Wagner Vineyards

Save the date! The NYS Wine Grape Growers have organized a day of vineyard equipment displays and demonstrations that will be held at Wagner Vineyards in Lodi, NY. More information to come soon, but be sure to put this on your calendars.
2023 GDD & Precipitation

<table>
<thead>
<tr>
<th>Date</th>
<th>Hi Temp (F)</th>
<th>Lo Temp (F)</th>
<th>Rain (inches)</th>
<th>Daily GDDs</th>
<th>Total GDDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/20/23</td>
<td>84.6</td>
<td>59.9</td>
<td>0.04</td>
<td>22.3</td>
<td>1371.7</td>
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<tr>
<td>7/21/23</td>
<td>77.5</td>
<td>61.9</td>
<td>0.07</td>
<td>19.7</td>
<td>1391.4</td>
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<tr>
<td>7/22/23</td>
<td>80.2</td>
<td>61.3</td>
<td>0.00</td>
<td>20.8</td>
<td>1412.1</td>
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<tr>
<td>7/23/23</td>
<td>81.7</td>
<td>60.6</td>
<td>0.00</td>
<td>21.2</td>
<td>1433.3</td>
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<tr>
<td>7/24/23</td>
<td>83.8</td>
<td>63.9</td>
<td>0.32</td>
<td>23.9</td>
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<td>7/25/23</td>
<td>79.0</td>
<td>62.8</td>
<td>0.43</td>
<td>20.9</td>
<td>1478.0</td>
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<tr>
<td>7/26/23</td>
<td>86.9</td>
<td>62.4</td>
<td>0.00</td>
<td>24.7</td>
<td>1502.7</td>
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</tbody>
</table>

Weekly Total: 0.86"  Total GDDs: 153.3
Season Total: 14.99"  Total GDDs: 1502.7

GDDs as of July 26, 2022: 1601.2
Rainfall as of July 26, 2022: 10.72"

Seasonal Comparisons (at Geneva)

Growing Degree Days

<table>
<thead>
<tr>
<th></th>
<th>2022 GDD ¹</th>
<th>Long-term Avg GDD ²</th>
<th>Cumulative days ahead (+)/behind (-) ³</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>135.9</td>
<td>62.8</td>
<td>+13</td>
</tr>
<tr>
<td>May</td>
<td>216.8</td>
<td>256.3</td>
<td>+3</td>
</tr>
<tr>
<td>June</td>
<td>470.9</td>
<td>484.6</td>
<td>+3</td>
</tr>
<tr>
<td>July</td>
<td>594.9</td>
<td>646.1</td>
<td>+4</td>
</tr>
<tr>
<td>August</td>
<td>597.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept</td>
<td></td>
<td>360.2</td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td></td>
<td>112.5</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1418.4</td>
<td>2519.8</td>
<td></td>
</tr>
</tbody>
</table>

¹ Accumulated GDDs for each month.
² The long-term average (1973-2022) GDD accumulation for that month.
³ Numbers at the end of each month represent where this year’s GDD accumulation stands relative to the long-term average. The most recent number represents the current status.
### 2023 GDD & Precipitation

#### Precipitation

<table>
<thead>
<tr>
<th></th>
<th>2023 Rain 4</th>
<th>Long-term Avg Rain 5</th>
<th>Monthly deviation from avg 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>5.73&quot;</td>
<td>2.80&quot;</td>
<td>+2.97&quot;</td>
</tr>
<tr>
<td>May</td>
<td>1.90&quot;</td>
<td>3.07&quot;</td>
<td>-1.17&quot;</td>
</tr>
<tr>
<td>June</td>
<td>4.61&quot;</td>
<td>3.56&quot;</td>
<td>+1.05&quot;</td>
</tr>
<tr>
<td>July</td>
<td>5.01&quot;</td>
<td>3.43&quot;</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td></td>
<td>3.21&quot;</td>
<td></td>
</tr>
<tr>
<td>Sept.</td>
<td></td>
<td>3.47&quot;</td>
<td></td>
</tr>
<tr>
<td>Oct.</td>
<td></td>
<td>3.41&quot;</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>17.25&quot;</td>
<td>23.02&quot;</td>
<td></td>
</tr>
</tbody>
</table>

4 Monthly rainfall totals up to current date  
5 Long-term average rainfall for the month (total)  
6 Monthly deviation from average (calculated at the end of the month)
Additional Information

Become a fan of the Finger Lakes Grape Program on Facebook, or follow us on Twitter (@cceflgp) as well as YouTube. Also check out our website at http://flgp.cce.cornell.edu.

Got some grapes to sell? Looking to buy some equipment or bulk wine? List your ad on the NY Grape & Wine Classifieds website today!

Finger Lakes Grape Program Advisory Committee

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