



# Finger Lakes Vineyard Update

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## In the Vineyard

*Hans Walter-Peterson*

A lot of varieties have arrived at the trace bloom stage over the past few days. In our visits along the west side of Cayuga Lake yesterday, we saw Riesling, Chardonnay, Pinot Gris, Cabernet Franc, Catawba, and Gewürtztraminer at early bloom phase. The cool and wet weather pattern that we've fallen into lately makes me a little concerned about the bloom period getting dragged out longer than usual, which could cause some problems with set in earlier varieties that have been going through bloom over the past week like Concord, Niagara, Baco, and Foch. But as we discussed at yesterday's Tailgate meeting, some varieties seem to be able to shrug off less-than-ideal weather during bloom and still manage to set a good crop. Once one more rain storm passes through the area tomorrow, it looks like things should progressively dry out and warm up, making better conditions for bloom and fruit set.



*Riesling cluster at trace bloom, June 11 2013.*

### Factors that influence fruit set

There are a number of factors that determine how much fruit will end up being set on clusters. Some of these factors can be influenced to some extent by growers, while others are out of their control.

Environmental Factors – probably more than anything, the environmental conditions present before and during the bloom period can have a significant impact on fruit set. Cool, cloudy or wet conditions can all cause some problems that manifest themselves during set. If cool and cloudy conditions predominate in the prebloom period, the flowers may not develop normally, which will reduce the number that will ultimately form berries. Cool or hot temperatures (below 65°F and above 100°F) during bloom can also slow the growth of the pollen tube towards the egg, which is only viable for a certain amount of time. Rain during bloom can prevent the calyptra (the “caps” or petals on each flower) from completely detaching from the flower, which can also interfere with pollination.

Vine Nutrition – Poor fruit set can be the result of nutrient deficiencies in the vine. Recall that most of the vine's nutrient needs before bloom are actually met by reserves in the permanent structure of the vine being remobilized, which means that significant deficiencies from the year before can impact the

### Upcoming Events: [more details in Upcoming Events](#)

- Vineyard Tailgate Meeting June 25, 2013
- ASEV– Eastern Section Annual Conference & Symposium July 15–18, 2013
- Field Meeting on Soils & Compaction July 30, 2013

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development of the flowers in the early part of the current season. The two mineral nutrients most often associated with fruit set are boron and zinc.

**Vine Vigor/Balance** – At bloom, the flowers on the vine are competing for resources with the growing shoot tips. The shoot tips are very strong sinks for resources. On an overly vigorous vine (or one that is undercropped), they can outcompete the flower clusters for nutrients and result in poor flower development and set.

*What can growers do to influence fruit set?*

**Nutrient sprays** – As mentioned above, the two mineral elements most often associated with fruit set are boron and zinc. A number of growers in the Finger Lakes include boron in their spray tank for one or two applications just before bloom. Some will also occasionally apply it to the soil in their early herbicide spray. A trial by Tim Martinson in 1998 showed that this practice can improve set significantly *when there is a significant deficiency of boron in the vines*. Boron has a very small window between being deficient and toxic, so applying boron to vines that are already adequately supplied can cause toxicity symptoms.



*Boron toxicity symptoms include leaves that are cupped downward and dead tissue at the margins of mature leaves.*

*Source: Drip irrigation can effectively apply boron to San Joaquin Valley vineyards". California Agriculture 59(3): 188-191*

**Shoot tipping** - Removing shoot tips in the midst of bloom has been shown to consistently increase fruit set. The basic reason that this works is that removal of the shoot tip alters the competitive balance between the tip and cluster as sinks for nutrients. By removing the strong sink at the end of the shoot, more nutrients and photosynthates can be directed to the flowers.

**Early leaf pulling** – Removing leaves from around the cluster zone just prior to or at the beginning of bloom can reduce fruit set because it removes the source of photosynthates to the flowers during bloom, resulting in more of the flowers not

fertilizing and being able to sustain early development of the seed and berry. This can be an effective solution to reducing compactness in tight-clustered varieties.

### *Plant Growth Regulators*

There are plant growth regulators available that are able to decrease fruit set in grapes, and are used extensively in table grape production. Gibberellic acid (GA) is a compound that exists in many fruiting plants, including grapes, and is used to reduce set in seedless table grape varieties. The problem with using GA and other materials like it on seeded wine varieties is that they will often have negative effects on shoot and cluster formation in the following season.

*An expanded version of this article on fruit set will appear in the June issue of the Vineyard Notes newsletter, which will be coming out in the next day or two.*

## Tailgate Summary

*Mike Colizzi*

The rain finally stopped yesterday ahead of our tailgate meeting at Hosmer Winery. We had excellent attendance and some great discussion on popular topics like bloom, insects, rain, vine nutrition, and diseases management. Attendees had the opportunity to meet Megan Hall & Derek Simmonds. Megan is a grad student working with Wayne Wilcox. During her five years here she will be focusing on sour rot. Derek is the new Agriculture Economic Development Specialist for Seneca County Cooperative Extension.

Hans and I took some time yesterday while dodging the rain to get out and scout some vineyards around Ovid. We were finding our first potato and grape leafhoppers of the year. For more information on identifying and controlling leafhoppers please see the [IPM section of this update](#). It looks like tomorrow's possible two inches of precipitation could make getting in the field next to impossible for a couple of days. We have seen some phomopsis and black rot this year, however despite the excellent conditions for downy mildew we have not seen any yet. It is important to be diligent about scouting and remember that a little scouting now could save you a lot of problems later.

## Tailgate Summary *(Continued from page 2)*

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We could find signs of bloom in almost every variety that we looked at yesterday. Native varieties were average about 30% bloom, hybrids were around 10-15% and Vinifera varieties were showing signs of trace bloom. Bloom is a great time to take petiole samples to assess the vines nutrient status for micronutrients. If you notice any problems they can typically be addressed through foliar fertilizers during the season.

We would like to thank Tunker Hosmer and the staff at Hosmer Winery for hosting last night's meeting. The next meeting will be on June 25th at Dr. Franks.

## IPM

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*Hans Walter-Peterson*

You've heard it said many times before, but here it is again – the period from just before bloom to the end of bloom and fruit set is the most critical time of the season for disease control. What happens now (or doesn't happen) can have a big influence on disease pressure the rest of the year. This is not the time of year to cut corners. Using the best materials, proper timing, adequate coverage and driving every row will help to ensure that disease is kept in check over the next few weeks, and won't build up to unmanageable levels later on.

The cool, rainy conditions that have predominated over the past week or so are particularly favorable for phomopsis and downy mildew infections. The DMCast model identified infection periods for downy mildew yesterday, Monday and this past Saturday in the Dresden area. And with the recent rain, moderate temperatures and humid conditions, it's been party time for powdery, black rot and phomopsis infections as well, which makes the use of the best materials and good spray application practices even more critical right now.

One of the things we mentioned at yesterday's Tailgate meeting was the importance of paying more attention to the interval between sprays than the phenological stage of the vine right now. By that, I mean the important thing is to keep appropriate spray intervals based on the weather conditions (which would argue for shortening them up a little bit right now), and not worry about whether the vines are still pre-bloom, at early bloom, or further along.

### *Leafhoppers*



*Grape Leafhopper*

In a couple of our vineyard stops yesterday along Cayuga Lake, Mike and I were able to find both [grape](#) and [potato](#) leafhoppers. The number of individuals was still fairly low at this point, but we were able to find them. We know that we will have to deal with grape leafhoppers to some extent most years, while potato leafhoppers have more of a tendency to come and go depending on the number of weather systems that bring them up from the south. Last year, we saw more symptoms of potato leafhopper feeding than I recall seeing here before. Because the insect does not overwinter here, a heavier than normal presence one year does not necessarily mean that populations will be high the following year.



*Potato leafhopper*

Materials that are effective against leafhoppers include Assail, Brigade, Sevin, Baythroid, Danitol, Provado, and Voliam Flexi. Assail and Sevin are not restricted-use materials, and can be used by those without a pesticide applicators' license.

The numbers that we were finding yesterday did not approach a level where the grower would need to consider spraying for them. But it is time for them to start appearing in vineyards this year, so be sure to be scouting for them now and more frequently as we get further into the summer.

## Upcoming Events

### Vineyard Tailgate Meetings

Tuesday, June 25, 2013 5:00 – 6:30 PM

Dr. Konstantin Frank's Vinifera Wine Cellars

9749 Middle Road, Hammondsport NY 14521 ([click here for map](#))

These are a series of informal meetings held with growers in different locations around the Finger Lakes during the growing season. Meetings are held every other Tuesday afternoon, starting at 5:00 PM and usually ending around 6:30 PM. During the day of each meeting, Mike and I visit a few growers and vineyards near the meeting location to get a sense of what has been happening in the area, and give us some ideas about some potential topics for the meeting later that day. There will also be ample time to discuss any questions or issues that others want to bring up as well. There is no need to register ahead of time – just show up when you can, and leave when you have to.

There will be 0.75 pesticide recertification credits available for each meeting. As with other events where credits are available, you need to be present at the beginning of the meeting to sign the meeting roster – make sure to have your card with you - and stay until the end to receive your certificate.

See schedule at right for the rest of our Tailgate meetings this season.....

Date	Address
July 9	Hermann J. Wiemer Winery, 3962 State Route 14, Dundee NY 14837
July 23	Vine Country Farms (Roy & Gordon Taft), 8531 County Rd 79, Prattsburgh NY 14873
August 6	Atwater Vineyards, 5055 Route 414, Hector NY 14841
August 20	Goose Watch Winery, 5480 Route 89, Romulus NY 14541

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### ASEV-Eastern Section Annual Conference and Symposium

July 15-18, 2013

Winston-Salem Marriott and Embassy Suites

Winston-Salem, North Carolina

Join us for the 38th Annual American Society of Enology and Viticulture Eastern Section Conference and Symposium July 15-18, 2013 in Winston-Salem, North Carolina.

On Monday, July 15th, there is a **preconference tour** of North Carolina wineries and vineyards. The **conference** will begin with technical/research presentations on Tuesday and Wednesday, July 16th -17th and include Tuesday's Oenolympics Grazing Dinner with Wines of the East and Wednesday's Sparkling Wine Reception and Grand Award Banquet.

The conference will be followed by the **Symposium on Advances in Red Wine Production: Berry to Bottle** on Thursday, July 18th. The Symposium, designed for vineyard managers and winemakers, will feature experts in red wine production.

Additional information about registration, lodging and conference events can be found at <http://www.asev-es.org>.

We look forward to seeing you in North Carolina!

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### Field Meeting on Soils & Compaction

Tuesday, July 30 4:00 – 6:00 PM

Doyle Vineyard Management - Dresden Farm

1255 Ridge Road, Penn Yan NY

This is just an early heads-up about a field meeting we are in the process of organizing that will be focused on soil management, including a demonstration of several different pieces of equipment that could be used to deal with compaction in vineyard soils. More details to come soon.

## 2013 GDD Accumulation

We are tracking growing degree day (GDD) and precipitation accumulation again this year, but we will be reporting data from [our weather station located at the teaching & demonstration vineyard in Dresden](#), at Anthony Road Wine Company, instead of using the station at Geneva. We will continue to monitor GDD accumulation at Geneva in order to see how our new location compares with it, and to provide context of where we are with regard to heat accumulation compared to our long-term average.

FL Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
6/5/13	71.0	46.0	0.00	8.5	526.5
6/6/13	59.0	54.0	1.80	6.5	533.0
6/7/13	67.0	60.0	0.03	13.5	546.5
6/8/13	67.0	57.0	0.03	12.0	558.5
6/9/13	78.0	55.0	0.00	16.5	575.0
6/10/13	67.0	58.0	0.39	12.5	587.5
6/11/13	69.0	61.0	0.29	15.0	602.5
June 2013 Total			2.61"	151.5	
Monthly Avg - June			3.60"	479.3	
Season Total			8.20"	602.5	

Average GDD on June 11: 463.9 (currently 8 days ahead of average)


Average Rain on June 11: 7.11"

## Additional Information

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

Become a fan of the [Finger Lakes Grape Program on Facebook](#), or follow us on [Twitter \(@cceflgp\)](#). Also check out our website, "The Grape Lakes – Viticulture in the Finger Lakes" at <http://flg.cce.cornell.edu>.

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