



FINGER LAKES VINEYARD NOTES

Newsletter #6

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CANOPY MANAGEMENT FIELD MEETINGS

Timothy E. Martinson

I want to remind everyone of two field meetings coming up during the month of June:

June 3. Canopy Management and Trellis Construction - Natives and Hybrids

Tones vineyards, 1/2 Mi S. of Branchport, W. Side of Rte 54A (look for signs). 7 PM. With the improving market for native and hybrids, growers have an added incentive to make investments that will improve productivity of their existing vineyards. Many are also planting new vineyards. Trellis upgrades and managing canopies to maintain adequate canopy fill, fruitful buds, and to avoid alternate year cropping are keys to attaining consistent productivity. Tim Martinson, Bob Pool, and Rich Erdle will be on hand to comment on hedging with and without followup, hedging/hand pruning in alternate years,

alternating hedging/hand pruning in individual rows, top-wire cordon, umbrella kniffen, and other practices observed in the Finger Lakes. **Fred Smith**, from Innovative Fence, Inc. will talk about trellis design and construction, and improving existing trellises. Come join us and bring your questions and comments. No pre-registration required.

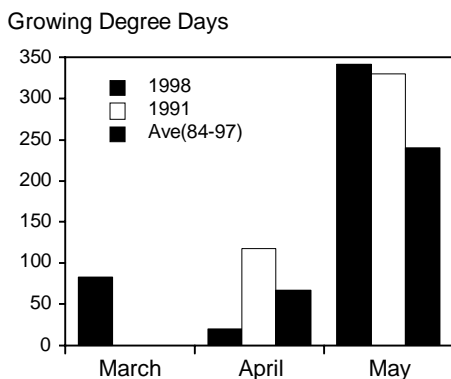
June 30. Canopy Management for *vinifera* grapes.

2:30 PM, Starting at Sawmill Creek Vineyards (1/2 mile N of Hector on Rte 414) .More and more *vinifera* growers are converting their vineyards to training systems that allow greater fruit exposure, reduce disease problems, and improve wine quality. Join us for an afternoon tour of East Seneca Lake vineyards. Learn about cane-pruned and cordon-trained vertical shoot positioning (VSP), the Scott-Henry vertically-divided canopy, and managing existing top-wire vineyards to maximize light penetration and improve fruit quality. The tour

will feature Jim Hazlitt's **Sawmill Creek Vineyards** (cane-pruned VSP and Scott-Henry), and will stop at Mark Wagner's **Lamoreaux Landing vineyards** (cordon/spur trained VSP) and John & Bill Wagner's **Wagner Vineyards** (cordon/spur trained VSP). **Fred Smith**, from Innovative Fence, Inc. will talk about trellis design and construction at Wagner Winery. The tour will end at **Lamoreaux Landing Winery**, with brief discussions by area winemakers on how canopy management affects wine quality, and an overview of Lamoreaux Landing Winery. Wine tasting and light refreshments will be served. There is no fee, but **Pre-registration is required. Call 315-536-5134 to pre-register.**

CURRENT SITUATION

Let me begin by stating the obvious: It is an *early* year. Warm weather in May has accelerated vine development. As of today (5/29), Baco noir, GR-7, and Elvira vineyards on W Keuka Lake and Dresden are reported to be in bloom. Current GDD accumulations are most like 1991 (see figure), and well above average. As of today, we have accumulated 445 growing degree-days (GDD), and historically, bloom on Concord grapes has occurred between 510- 590 GDD, with the average being 548 GDD. Expect Natives to be in bloom by about June 2, with *vinifera* following toward the end of the week.



Growing Degree Days by month in 1998, 1991, and Average (1984-1997).

Along with rapid vine development, there has been no rain since May 11, (although rainfall total for the month is about average at 2.8"), which means that available soil moisture is being used up at a rapid rate, and some sites may be at risk for water stress. (Note: Significant rainfall on Sunday, May 31 has eased immediate concerns about soil moisture)

This accelerated development and relatively dry weather brings to mind several concerns that growers should keep in mind as the season progresses.

- **Disease Management.** Protection for all 4 major diseases (powdery mildew, downy mildew, black rot, and phomopsis) is critical from the immediate prebloom to fruit set stage. This point has been repeated ad nauseum, but is a key one for diseases. *The prebloom to fruit set period is when the overwhelming majority of cluster infections occur. After fruit set, clusters become more resistant to infection.*
- **Insect Management.** Warm weather accelerates insect development, and drought stress lessens the tolerance of grape vines to foliar feeders. Grape leafhopper completes two full generations in years such as this one. A recent study in Fredonia demonstrated that foliar injury by leafhopper (up to 5% of leaf area) caused little yield reduction when adequate soil moisture was available, but had a strong additional effect on yield when vines were under drought conditions. Growers should also be vigilant about European red mite, and scout vineyards frequently to determine whether or not they are present. Significant infestations have been observed in the Finger lakes. Look for a more detailed article in the next newsletter.
- **Floor Management.** Dry conditions mean that the ground cover becomes more competitive for water. The most important time to reduce row middle competition is from bloom to veraison. If dry conditions persist, it may be useful to consider a post-

emergent weed control application to row middles, or to mulch earlier than normal to conserve soil moisture. The period immediately after fruit set is the most important, because that is when cell division in the berries occurs. If growth is limited by lack of water during this phase, berry size can be significantly reduced.

Frost Damage Update. Significant frost injury occurred in parts of the Finger Lakes, following cold temperatures on April 27. Temperature readings indicated that across the Finger Lakes most areas had a low of 28° F. Areas that had the most injury were the E side of Keuka Lake, from Gray Rd down to Hammondsport, and E. Seneca lake, from higher-elevation vineyards in the Hector-Valois area to Burdett, near Watkins Glen. Isolated spots between the lakes also received some frost injury. Damage was most significant on native varieties, with little reported on *vinifera*, perhaps because they weren't as far out as the natives. Primary bud injury ranged from 20 - 90% in individual sites. Those of you with heavy frost injury and a light crop will want to re-evaluate nitrogen fertilization, avoid heavy post-bloom applications, and go with a minimal fungicide program. Please feel free to contact me at my office to discuss specific issues.

Finally, I want to remind you all that the most up-to-date information on vine development, pest management, and upcoming meetings is available through the grape Code-a-Phone message, updated twice weekly. The code-a-phone message is available by calling **315-536-5149** at any time of the day. It is also available through electronic mail - to sign up send me a message at tem2@cornell.edu saying you would like to subscribe.

EMERGENCY EXEMPTION FOR PONNAX *Tim Martinson*

A Section 18 Crisis Exemption for use of Ponnex Plant Regulator (EPA Reg. #7969-97) on grapes has been granted by the New York

State Department of Environmental Conservation. This crisis exemption allows use from Wednesday May 27 through June 10, 1998. Ponnex is a growth regulator applied at bloom to increase fruit set. The emergency exemption was obtained in response to extensive frost injury present in W New York, and to a more limited extent in the Finger Lakes. The following article by Phil Throop details some of the economics of using this product. As always, read the label for specific use instructions.

USE OF PONNAX *Philip Throop*

Recently, a crisis exemption was obtained for the use of a growth regulator called Ponnax (Mepiquat chloride) in an attempt to obtain a tool for increasing set in frost damaged vineyards. Attempts to obtain this exemption were made prior to establishment of the cost of this product, which, as it turns out, is a MAJOR disadvantage in use on frost damaged vineyards.

Research carried out by Dr. Robert Pool at Fredonia indicates that Ponnax works by directly increasing set. With use of this product yields can be increased from 5% to 15% on vines where flower clusters are intact and still have potential for set. Increases will vary from year to year depending on vine condition. Typical yield increases were a half to three quarter tons/acre where sufficient healthy clusters were available for increased set. Vines in these experiments were in excellent condition with very thorough spray coverage at 50% bloom. When data over several treatment years was analyzed no significant increases were observed over non-treated checks because vine size was reduced following a heavy set. Be aware that there is data being released claiming exceptionally high yield increases. Much of this is likely from non-controlled experiments. Beware of claims that are not based on statistically valid methods!

The crux of the decision making process for using (or not using) Ponnax should be based on economics, which Barry Shaffer provided. The following table shows yield increases necessary at a given existing (projected) crop load in order to simply cover costs.

	Cost per acre/ton
Ponnax (as of 6/98)	80.00
Labor	3.50
Equipment & Fuel	11.50
Harvest & Truck per ton	38.00
Breakeven Yield assuming \$250.00 per ton	.44


Yield increase needed at existing crop to recover costs

Projected Yield % increase in yield needed	3 tons	6 tons	8 tons
	14.7%	7.3%	5.5%

The usefulness of this material is thus greatest in vineyards with good crop potential at this time. In severely frost damaged vineyards, recovery of costs is unlikely with use of this product at the given costs.

UPCOMING EVENTS

July 22-24. *Eastern Section American Society of Enology and Viticulture (ASEV) Meeting*, Crowne Plaza hotel, Grand Rapids, Michigan. This program has two major sections. *Issues in Sparkling Wine Production: An International Symposium* (22-23 July) will include talks on enology and viticulture aspects of sparkling wine and tasting of commercial and research wines. The *Technical Program* (23-24 July) will focus on research presentations in enology and viticulture, a trade show, and a regional wine showcase. Contact Ellen Harkness, 745-494-6704 (phone), 765-494-7953 (fax), or harkness@foodsci.purdue.edu (email) for registration information.



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PEST MANAGEMENT FIELD MEETING

Name _____ Names _____

Name _____ Names _____

Farm _____

Address _____

Telephone No. _____

Please mail to: Finger Lakes Grape Program, 110 Court Street, Penn Yan, NY 14527

Please pay \$10 per person if NOT enrolled in the Finger Lakes Grape Program (make checks payable to the “Finger Lakes Grape Program”). If a farm is enrolled, all employees of the farm are considered as enrolled, and therefore, may attend free of charge.