



# FINGER LAKES VINEYARD NOTES

1998 Newsletter #9

August 5, 1998

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## CURRENT SITUATION

*Timothy E. Martinson*

Hard to believe it, but the harvest season is again rapidly approaching. Veraison is just around the corner. Estimates at the vineyard laboratory in Fredonia are that Concord grapes will reach veraison by about August 5. We don't have quite as many degree-days in the Finger Lakes, but should be at about the same stage about 3-5 days later. Weather data (summarized in the graphs below) for the season show that June and July have had about average temperature and rainfall.

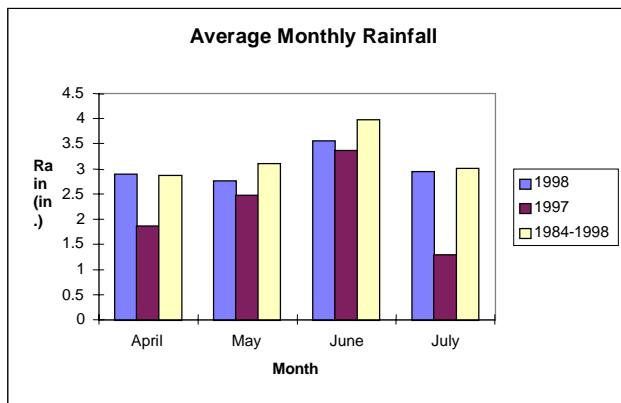
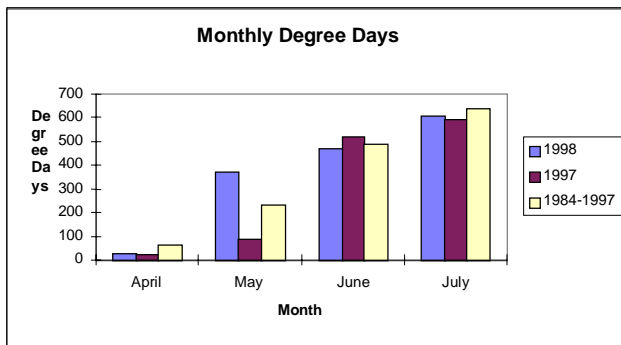
Harvest and maturity should be 1-2 weeks ahead of average - processors will be opening in mid-August for Aurore grapes, and early September for Niagara's, with mature ConCORDs possibly in mid September.

Dry weather has moderated disease concerns somewhat. In general, I am seeing less powdery

mildew on clusters than I saw last year, and I have seen very few vineyards with visible and serious downy mildew infections. Black rot infections, however, are generally easy to find in many vineyards - with some berries starting to show visible symptoms as late as last week. It is important to recall that the latent period of BR infections on clusters is about 17 days from the time of infection to the time that visible symptoms appear - new cluster infections should not be appearing at this time.

Dry, warm weather also favors spider mites. European red mite, at this point, is about a month away from producing the dormant 'winter eggs' - at which point they cease to be a problem if reasonably low populations are present. Treatable populations are showing up in several area vineyards.

Crop is expected to be better than last year for many hybrids, up slightly for ConCORDs and Niagara, and about average for *vinifera* grapes.



## PETIOLE TESTING IN 1998

*Tim Martinson*

As we move into mid August, it is time to plan for nutritional analyses to determine your fertilizer needs. Petiole analysis is the most reliable method for determining the status of most major nutrients in grapevines. While soil tests, when used together with petiole tests, can be helpful in making fertilizer recommendations, they are not as reliable for indicating nutrient status of the plant. Here are some guidelines:

### What tests are available?

Complete analyses (including nitrogen) and non-nitrogen petiole tests are available through the our office. We generally recommend the **no-nitrogen** test, for several reasons. Fall foliar analysis of nitrogen is not considered to be a reliable indicator of nitrogen needs and status. Nitrogen tests may be useful in comparing weak and strong vineyard sections, or for testing the effects of different rates on a particular variety. However, bloom-time samples are considered

to be better for these purposes. Shoot growth and trellis fill are considered to be the most practical indicators of N status in the field.

### When should samples be collected?

More than 70 days (10 weeks) after bloom. Samples can be taken later, as long as leaves remain in good condition, but should be collected *before harvest*. **This year (Here in the Finger Lakes) that puts us into the 3<sup>rd</sup> week in August for early varieties, and early September for others.**

### What blocks should I sample?

- Accuracy of the recommendations depends on a representative sample. Thus a sample taken from a particular block may not necessarily apply to another block of the same variety, or even another part of the vineyard block, if it is large. Generally one sample should not be expected to provide useful information for more than 10 acres.
- Sample different varieties separately.
- For **young vines** just coming into bearing, sample every year. Production generally changes rapidly during the first few crops, and fertilizer needs also change.
- For **mature vines** that have had no major additions of fertilizer, sample every 2 to 3 years. If high rates of fertilizers were made over the past few years to improve the nutrient status of the vines, collect samples yearly to track changes in the vines, and to determine if additional amendments are needed.
- For **Nonbearing vines or lightly-cropped vines**, samples may not be useful unless distinct visual symptoms or obvious problems appear. Without crop stress, most nonbearing and lightly cropped vines have higher levels of nutrients.
- For **problem areas in vineyards**, collect two samples - one in the area showing the

problem, and one in a 'normal' area. Doing so and comparing samples will allow you to diagnose whether or not the problem is related to nutrient status of the vine.

- **Soil Tests** are recommended every 3 to 5 years, and prior to planting new blocks.

### **Where do I get petiole and soil test kits?**

Petiole and soil test kits are available through the Finger Lakes Grape Program office. Show up in person between 8:00 AM and 4:30 PM to pick them up, or send a request to the program through the mail. Kits are paid for at the time they are picked up or mailed out after payment has been received in our office. Make checks payable to: *Finger Lakes Grape Program*. Fees are as follows:

New York State and out of state petiole samples: \$15 for no-nitrogen, \$22 for complete analysis.

### **SANITATION DURING GRAPE HARVEST**

Dr. Randy W. Worobo

Assistant Professor of Food Microbiology  
*Cornell University*

Most people realize that in food processing plants a sanitation program is essential in the production of a high quality product. However, fewer people realize that a sanitation program is just as important when dealing with the raw ingredients at the farm level.

During grape harvesting, there are several ways that spoilage and disease causing microorganisms can enter into grape juice production. Essentially everything that comes into contact with the grapes during harvest can end up causing problems if poor or no sanitation is performed. The pieces of equipment that must be sanitized thoroughly are the harvester, the bins and any field equipment such as tractors and trucks.

With harvesters and bins, at the end of the day, they have become heavily contaminated with microorganisms that are from the fields, the vines and everything in between. If they are left unsanitized until the next day or the next day of use, the microorganisms begin to multiply to high levels using the residual grape juice as a food source. High levels of spoilage bacteria introduced by dirty equipment will spoil the grape juice much faster than a properly sanitized piece of equipment. Uncleaned equipment also attracts animals and insects that can spread contamination over the equipment and the next time it is used, it can spread these spoilage and pathogenic organisms into the harvested grapes and eventually into the grape juice. By sanitizing the equipment and bins immediately after finishing, you destroy the microorganisms and you wash away the residual juice that would attract animals and insects. Typical spoilage organisms for grape juice are wild yeasts and lactic acid bacteria that can ferment the juice and produce either alcohol or undesirable off-flavors in the juice. Pathogenic microorganisms that may be introduced include Salmonella, E. coli and Listeria. All three of these organisms are capable of causing food borne illness if the grape juice is consumed prior to pasteurizing.

A common practice on many farms is to use different tractors and trucks for different types of work or to borrow neighboring farm tractors and trucks during high use periods. An overlooked risky situation here is when the tractor or truck has been used for other purposes besides grape harvesting. For example, tractors are used on farms for use with cows, horses, sheep and other animals to assist in feeding, spreading manure and planting. The tractors or trucks used for any of these operations can come in contact with the feces of these animals. If the tractor or truck isn't sanitized before being used during grape harvesting, spoilage and potentially pathogenic microorganisms can enter into the system in this way.

Fortunately, grape juice is pasteurized which aids in protecting consumers. However, the

presence of excessively high levels of spoilage or pathogenic bacteria in the raw product can pose a potential risk for the pasteurized product.

One of the most common and effective sanitizers used is chlorine. When used at 200 ppm (1/2 oz household bleach per gallon of water) it is effective in eliminating the majority of the contaminating microorganisms. Other sanitizers include iodine and quaternary ammonium compounds which can also be used, but typically aren't as effective, take longer to kill the microorganisms, and are more expensive than chlorine. By first rinsing off the equipment with potable water followed by washing with 200 ppm of chlorine and letting it stand for 10 minutes, this should adequately sanitize the equipment.

Of course, all workers should carry out proper hygiene when working with harvested grapes. If you have any additional questions or comments, feel free to contact me at the number listed above.

#### **Postscript:**

Dr. Worobo was asked to write the preceding article to raise awareness of field sanitation. As a result of media focus on health problems associated with contaminated cider, the apple juice industry has faced decreased juice sales (at least temporarily) and stricter regulations.

Although almost all grape juice is pasteurized it is best to take a preventative approach to the issue in our industry. Most processors have policies for handling of contracted grapes. For example, National Grape Cooperative stresses that prior to harvest, equipment should be cleaned and sanitized. All grease, dust or other debris needs to be removed from harvesters and, thereafter, rinsed every 4 hours of operation with clean water and sanitized at the end of the shift. Bins and lids should be thoroughly cleaned prior to harvest and rinsed with bleach solution after each dumping. Delivery to the plant should be no later than 8 hours after harvest. It is in

your interest to understand these policies to protect juice quality. P.T.

## **A GOOD TIME TO SELL VINEYARDS?**

*Barry Shaffer*

*Area Farm Management Educator*

*Lake Erie Regional Grape Program*

I see at least three advantages to selling vineyards if one is so inclined:

- Recent juice grape prices have been high helping to inflate vineyard prices. Market vineyard prices seem higher now than anytime else in my five years here in the Belt. I expect juice grape prices to be favorable through 1999. 1998 prices should be strong and 1999 juice grape prices could slip some with hopefully higher tonnage's (higher earnings per acre) in store for 1999. The best way to evaluate vineyard prices is to estimate returns above operating costs in order to see if that vineyard can pay for itself. Other factors include other uses for the underlying land such as building lots. Buyers beware, don't pay building lot prices unless you plan to develop lots. For more on evaluating how much a specific vineyard is worth using discounted cash!! flows look at the December 1996 newsletter for the article **How Much are Vineyards Worth?**
- Recent Tax Rate Reductions and Exclusions:
  - The maximum capital gain tax rate is 20% or 10% for taxpayers in the 15% tax bracket. The rates are lower than previously meaning more net profits and more money in your bank account.
  - The exclusion of gain from the sale of a principal residence is \$250,000 (\$500,000 for joint filers) on sales and exchanges. Most growers could sell their house and **not** have to **pay any federal taxes** on the gain (profit) on the house. If a farmer sold

a farm with their principal residence included, she would want to maximize the gain on the house within reason.

- Poor crops in 1998 may inspire growers to liquidate some or all of their holdings. Many growers averaging 4 tons or less will show losses even with good prices. Some cooperative members will notice the cash crunch more in 1999.

Selling vineyards should not be taken lightly. However growers selling now should net more than if they had sold two or three years ago. Vineyard prices should stay good as long as there are good prospects for profitability. When the price cycle changes, and it will, vineyard prices are likely to go down again. Talk to your tax professional **before** you sell in order to avoid mistakes.

## **UPDATE ON BOTRYTIS BUNCH ROT**

*Wayne Wilcox*

*Department of Plant Pathology  
NYSAES*

Abundant rains during the bloom through bunch closing period have greatly increased the chances for early establishment of Botrytis infections this year. Initial indications from a monitoring study that we are conducting in several commercial Finger Lakes blocks of Chardonnay, Pinot Noir, and Vignoles suggest that latent (dormant) infection levels are relatively high, and some early berry infections are already evident. If the weather stays dry between now and harvest, these may not amount to much. However, we may be set up for some significant Botrytis problems if things turn wet.

Detailed recommendations for Botrytis control are provided on pg. 34 of the 1998 Pest Management Recommendations for Grapes. There's no need to repeat them verbatim here, but it's worthwhile to emphasize a couple of points:

- With the increased risk of Botrytis this year, it's more important than usual to do everything "right" on susceptible, high-value varieties. This includes leaf removal and good canopy management in addition to well-timed sprays with good coverage. The benefits of good fruit exposure and air circulation are enormous.
- As fruit reach veraison and start to ripen, they become progressively more susceptible to infection. Injuries (e.g., cracking) makes them MUCH more susceptible.
- Keep a sharp eye in the vineyard and on the weather forecasts. The timing schedules provided in the Recommends are general guidelines. So (within label restrictions), don't wait for some magical date if plenty of spores are visible from current infections and rain is forecast. Conversely, don't be in a hurry to spend your two allowable pre-harvest sprays when disease pressure is low (dry weather, no Botrytis evident).
- Rovral works better when applied with a nonionic surfactant. In our trials, the surfactant Latron B-1956 (there are other similar materials) has provided the same "boost" to Rovral as 1% Stylet Oil, but at a cheaper price. However, Stylet Oil might be appropriate if you're looking for mite control or want to extend your powdery mildew control. Stylet Oil applied at veraison has given us outstanding control of leaf powdery mildew throughout the remainder of the season.

## **'FINGER LAKES GRAPE EXCHANGE' GRAPE HARVEST LISTING AVAILABLE**

*Timothy E. Martinson*

As a service to growers enrolled in the Finger Lakes Grape Program, the program is compiling an electronic listing of **grapes available to processors** and **grapes wanted by processors**. This list will be distributed by electronic mail, through the mailing list **Flgrape-L**. An updated list will also be posted at the Finger Lakes

Grape Program web site (*Error! Bookmark not defined.*).

The purpose of this listing is to assist growers and buyers of Finger Lakes grapes in making contacts with each other. Information will be limited to variety, tonnage desired or available for sale, and contact information (Name and telephone number). Any arrangements resulting from this listing are the responsibility of the parties involved. Instructions for submitting listings and obtaining the list follow:

**Finger Lakes Grape Exchange:** Listings (for both processors and growers) will include the following information: Name, phone number, variety, tonnage (for sale or wanted).

**To list 'grapes available' for purchase or 'grapes wanted':**

1. Internet method: Connect to 'web browser', type in location: *Error! Bookmark not defined.* Follow on-screen instructions to submit a listing.
2. E-mail method: Send a message to *Error! Bookmark not defined.* . Include your name, telephone number, varieties and tonnage for sale. In the subject line of the e-mail message, write 'grape listing'.
3. Telephone method: Call our office at 315-536-5134 and tell us you would like to list grapes available for sale.
4. Growers wanting to list grapes must be enrollees or subscribers to the Finger Lakes Grape Program.
5. Processors do not need to be enrollees or subscribers to list 'grapes wanted'.

**To subscribe to the e-mail listing of grapes available or wanted:**

1. Send an e-mail message to: *Error! Bookmark not defined.*
2. Leave the subject line blank.

3. In the body of the message write: *subscribe flgrape-L firstname lastname*

(substitute your first and last names for 'firstname lastname')

4. You will receive all messages posted to the list. Updates will be sent out twice weekly through harvest.

*If you want a copy of the listing and you do not have computer access, you can obtain the listing by calling our office at 315-536-5134.*

## UPCOMING EVENTS

**August 11.** 'Beyond the Big Apple' tour for State and Federal pesticide regulatory officials.

'Beyond The Big Apple' has been organized by Cooperative Extension and Ag industry representatives. This tour will bring a bus load of national (EPA) and state (NYS DEC) regulatory officials out to vegetable and fruit farms in Central and Western New York on August 11 - 13. The purpose of the tour is to: 1) Educate EPA, DEC, and other officials about the diverse array of vegetable and fruit products grown in NY; 2) Share with regulatory officials concerns about pesticide registration, particularly for minor crops, arising from the Food Quality Protection Act [See article in newsletter #8]; 3) Establish active communication between NY grower and industry groups and Federal/State regulatory officials.

There will be 3 tour stops related to grape production on the afternoon of **August 11, 1998**. At each stop we will explain the size and scope of the industry, pest management practices, and the impact that loss of registration of current pesticides would have on the industry. You are invited to attend any or all of the stops. Please contact our office for additional details. The schedule follows:

**'Beyond the Big Apple' Tour  
Grape Tour Stops**

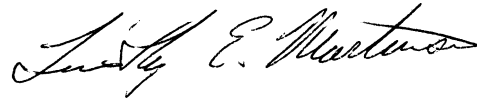
**3:30 -4:30 PM. Lucas Vineyards.** Cty Rd 150, off Rte 89, Interlaken. Wine grapes, disease management

**6:00 - 6:30 PM. Steve Bond Farm.** Rte 414, 1 mi S. of Hector. Juice grapes, Table grapes, insect management.

**7:00 Wagner Winery,** Rte 414, Lodi. Wine grapes, dinner.

**August 18, 10:00 - 3:00. Vineyard Establishment Workshop in Western NY.** Hosted by Dennis Rak of Double A Vineyards, Fredonia, NY. Take route 60 approximately one mile south of route 20 east onto Lakeview Avenue then 1/4 mile on the north side of the road. Look for the signs. This workshop will focus on the important considerations involved in establishing new vineyards or replanting previous vineyard sites. Topics include markets and variety selection, site evaluation, pre-plant

field preparations, fertility, field layout, tiling, early pest management and canopy management. This is intended as an overview workshop with the emphasis on timeliness. An in-depth vineyard establishment workshop is being planned for winter '98-'99'. ***Its critical to pre-register for this by August 15 by calling the Fredonia Cooperative Extension office at 716-672-2191 or 1-888-600-GRAPe so we can plan for meeting space and lunch.***



Timothy E. Martinson  
Area Extension Educator  
Finger Lakes Grape Program

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