



FINGER LAKES VINEYARD NOTES
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CURRENT SITUATION

David Peterson

Aurore was being harvested while I was writing this, so I will make this a brief newsletter since most of you have little time to read it. However, there are a couple of issues that I feel need at least some mention. Prices and demand for juice varieties and most hybrids and all *vinifera* are the best we have seen in some time, and there are shortages of many varieties. As predicted, it appears overall yields are running about average, although there is considerable variation from vineyard to vineyard. Many of the vineyards with light crops this year are those that had heavy crops last year, particularly those that had the greatest moisture stress in last year's drought. I have seen many nutritional problems throughout the season this year, probably exacerbated by the drought stress last year (that likely resulted in poor root growth). For this reason, it makes petiole (and soil) testing even more important. Potassium and magnesium deficiency symptoms are widespread, and many boron problems have been noted as well (see article

that follows). Petiole and soil sampling kits are available from our office.

FALL BORON APPLICATIONS

David Peterson

I have seen many unusual problems this season, but one of the more widespread ones was stunted early season growth, usually in distinct sections of vineyards. These sections were usually on eroded knolls, but also sometimes in wet areas. Regardless, these sections are typically those where we would expect poor root development. In many cases clusters were poorly formed, set was poor, and shoot growth never recovered. We analyzed some leaves and petioles from these areas prior to bloom, and boron was low to very low in most of these samples. For those of you that attended the "Millerandage" Symposium in Fredonia last winter, you may remember Dr. Pete Christensen talking about these types of symptoms being associated with low boron. He used the term "Barnes Effect" to describe the early season stunting symptoms, and recommended soil boron applications to correct it. In vineyards where these symptoms

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occurred, I suggest that growers consider a fall application of 0.5 pounds actual boron per acre, and followed by another 0.5 - 0.75 pounds actual boron in the spring. Make the fall application in September so that you can get some uptake this year. Soil applications of boron are easily done using an herbicide sprayer. Solubor is a commonly available product that contains 20% actual boron. Therefore, it would take 2.5 pounds of Solubor to give 0.5 pounds of boron. Some growers might question whether or not they should apply the boron to the whole block or the symptomatic vines only. In the samples that we analyzed, even the vines from the "normal-appearing" sections of the block were marginally low in boron. Therefore, toxicity problems from soil applications at the suggested rates are unlikely. However, if you did not have vines with the described symptoms and your block has no known history of boron problems, I would not apply it. In general, we see more "boron deficient" blocks on Keuka and Canandaigua Lake sites (especially on acidic and eroded soils), but it has occurred in other areas as well.

Soil applications are better for correcting the stunted shoot problem than foliar applications for a couple of reasons. First, foliar applications are typically timed closer to bloom, and are more targeted for improving fruit set. This is too late to overcome the early stunting. Also, boron is not mobile from older leaves to newer leaves. Once it is taken up into the leaf, boron will not move into new growth to supply needs as many other nutrient elements do. Soil applications, however, give a continuing supply to new growth.

Please give me a call if you have any questions as to whether a fall soil boron application would be appropriate for your vineyard.

POST-HARVEST FUNGICIDE SPRAYS

David Peterson

Given the magnitude of problems with downy and powdery mildew in many Finger Lakes vineyards, this season this may be a good year to consider a post-harvest spray. This is

probably most appropriate for early-harvested varieties that had problems this year. The most common situation fitting this description is powdery mildew on Aurore (some Delaware vineyards showed significant late season foliar powdery mildew as well). Sulfur is the recommended material. Although some "coffee shop rumors" persist that you need to get this application on immediately after the crop is harvested to make it effective, this is not the case. In spite of rumors to the contrary, juice left on the foliage from the mechanical harvester does NOT cause powdery mildew to spread nor does it cause new infections! Do not use sterol-inhibiting fungicides (e.g. Nova, Bayleton, Rubigan, Procure) at this time of year due to resistance concerns. If you need to make a post-harvest application to a variety that is highly sulfur-sensitive, use JMS Stylet Oil. For early harvested varieties that had downy mildew (e.g. Niagara), a post-harvest spray of copper and lime may be warranted.

FAREWELL! (WELL, NOT YET!)

David Peterson

By now, most of you have probably heard that I will be leaving my Extension Specialist position to join Swedish Hill Winery in Romulus, which is owned by my family. It's hard to believe that I have been here for 7 years in this position, and I will miss many things about the job. Perhaps the hardest thing to give up is all of the direct interaction that I have had with so many of you over the past years. It makes it easier, however, to know that I will still see most of you at meetings and at other events in the future. And you are all invited to pay me a visit in my new environment!

Although there are many reasons for leaving, the most important is the continuing growth and expansion at Swedish Hill. The winery has grown at a faster rate than we had ever imagined, and with me joining the operation we will have the opportunity to accelerate the expansion even more. Swedish Hill has grown from an initial production of 2,800 gallons of wine produced in 1985 (all from estate grown grapes) to more than 80,000 gallons of wine (which now includes over 400 tons of grapes purchased from 14 other growers, not including the estate grown grapes). Hopefully,

I'll be talking with many of you in the future about purchasing grapes! This change will also give me the opportunity to do some private consulting as well.

I will continue in my current position full time through October 10, and will likely be hired back on a part time basis through the end of the year (probably in the office about 1 day per week). I will be working on petiole test interpretations and will be doing at least 1 more newsletter this year, which will be mailed after harvest. I will also be involved in the initial planning for the 1997 Finger Lakes Grape Growers' Convention, scheduled for March 8, 1997 at the Holiday Inn, Waterloo. Cornell does intend to re-fill my position, and is in the process of beginning to advertise. I really believe that the industry is in the midst of a significant growth movement, and the future looks brighter than it has at any point in the past decade or two. In my final newsletter later this year, I will give my assessment of the future for the grape industry in the Finger Lakes.

FINANCIAL RATIOS PART 4 - PROFITABILITY

Barry Shaffer

This month we will look at profitability. Profitability measures the extent that the business generates net returns from the use of the resources available (land, labor, management, and capital).

WNY Farm Credit has been doing a Grape Farm Financial Summary for the past five years. For our examples we will use the Farm Credit's average farm data.

I'd like to look at one commonly used ratio per category and for profitability we'll use the rate of return on farm assets (ROA). This is:

$$\frac{\text{Net income (incl. interest \& depreciation expenses) + interest expense - Owner withdrawals for unpaid labor \& management}}{\text{Average total assets}}$$

This ratio measures the rate of return on all assets used in the business. ROA is the best single financial measure of profitability. Use

of owner withdrawals (family living) instead of the value of labor and management should be allowed only if the withdrawals are a reasonable estimate of the value of unpaid labor and management. This is rarely a problem in the grape industry. We will use family living and disregard any non farm income. We will do these calculations on a per acre basis (see the table below):

One way to view these ratios is like a traffic light.

Green (good)	Over .15
Yellow (caution)	.05 - .15
Red (unhealthy)	Under .05

We see that our average farm is very unhealthy in terms of profitability. Three out of five years the ROA is negative! Net farm income needs to be increased and/or family living decreased. One way to accomplish this is to spread family living expenditures over more acres. More acres usually will lower the total assets per acre in addition. Increasing production per acre can have a dramatic effect on profits!

1991	1992	1993	1994	1995	
1006	30	-24	401	65	Net Farm Income
149	142	112	163	172	Interest
-462	-505	-476	-431	-397	Family Living
693	-333	-388	133	-160	
693	-333	-388	133	-160	
5369	5325	5149	4934	5134	Total assets/acre
.13	(.06)	(.08)	.03	(.03)	ROA



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