

FINGER LAKES VINEYARD NOTES

Newsletter 9

September 2, 2004

Cornell Cooperative Extension

Finger Lakes Grape Program

IN THIS ISSUE . . .

- Yellow Vines and Waterlogged Soil
- Crop Disaster Assistance and Insurance Update
- Upcoming Events
- Grape Prices 2004

YELLOW VINES AND WATERLOGGED SOILS

Timothy E. Martinson

One of the most impressive things I've noted in the past few weeks as I look at vineyards is how yellow and stunted some of them look. This is happening across the entire spectrum of varieties – natives, hybrids, and *V.vinifera*. I've also been seeing some young, nonbearing vineyards that have had very weak growth and stunted shoots, more magnesium deficiency than usual, and Catawba vineyards with yellowed, curled leaves at the basal nodes. Concord vineyards (and others) passing through veraison are showing salt and pepper-type color change, with green and purple berries in the same clusters. This is not typical of Concord. What causes these effects and can growers do anything about it?

Many if not most of these symptoms can be traced to waterlogged soils, and the almost daily rainfall we received through July and most of August. Lets review how heavy rainfall and standing water in the root zone can affect



Senator **Hillary Rodham Clinton** listens while growers (l to r) **Dennis Rak** , **Mark Wagner**, and **Jim Hazlitt** demonstrate the consequences of winter injury for Finger Lakes vineyards. **Jim Trezise**, President of the NY Wine and Grape Foundation moderated the discussion. Senator Clinton visited **Lakewood Vineyards**, near Watkins Glen to discuss value added marketing programs for juice grape products and crop disaster assistance & crop insurance reform with growers. The meeting was sponsored by National Grape Cooperative.

nutrient uptake and particularly nitrogen availability.

Nitrogen becomes available in the soil through the action of soil microorganisms. There are two processes that occur to make nitrogen available in the root zone. *Mineralization* is the process by which nitrogen tied up in organic matter gets converted to 'inorganic' or mineral forms of nitrogen – ammonium (NH₄⁺) and nitrate (NO₃⁻). *Nitrification* is the conversion of ammonium into nitrate by soil organisms. Most nitrogen taken up by plants is in the nitrate form. Both of these processes – mineralization and nitrification – require oxygen in the soil. Having soils saturated with water interrupts this process.

In saturated soils where oxygen is not available, a process called *denitrification* occurs. This is accomplished by anaerobic bacteria that convert nitrate (available to plants) to nitrogen gas (N₂), which gets lost to the atmosphere.

Waterlogged soils, of course, directly affect root function, because roots also need oxygen for their respiration. Waterlogged roots are less effective in taking up nutrients from the soil, and grapevine roots are particularly sensitive to 'wet feet'.

The other process that depletes nitrate levels in the soil and nitrogen availability is leaching. Nitrate (a negatively charged ion) is not held by the soils like positive ions (also called cations) such as potassium, calcium, and magnesium. Water movement through the soils can strip away nitrogen.

Soils with 2-4% organic matter can supply 40-80 lb of N per year through the mineralization and nitrification processes. Normally, as we have periods of rainfall interspersed with drier periods, interruption of these processes by water is a very temporary phenomenon. But with almost daily rainfall, the interruption of aerobic processes that make N available and the denitrification that occurs in saturated soils can be more significant in reducing N availability.

Here's an example that illustrates potential effects: We have been taking soil samples and measuring nitrate levels (with a pSNT meter) every 2 weeks in a Seneca Lake vineyard where we are looking at how compost application affects vine growth and N availability. Last year we were seeing readings in July of 100-135 ppm of nitrate-N. This year we are seeing levels of 20-25 ppm. This illustrates the effect that daily rainfall can have on nitrate availability.

In short – the constant rainfall is inducing nitrogen deficiency in our vineyards. Reduced root function in saturated soils is probably also provoking other deficiencies such as magnesium deficiencies as well. Lack of nitrogen could affect the ripening process (delaying sugar accumulation) and lead to poor winter acclimation (as was the case last year).

Management Options. What can growers do about it at this stage in the growing season? At this point applications of N (foliar urea) and/ or magnesium (Epsom salts or magnesium sulfate) would be options for growers to consider. Here are some guidelines:

Magnesium. Epsom salts applied at the rate of 10 lb per 100 gallons of spray solution should be a safe spray. I would consider it if I saw visible leaf symptoms of magnesium deficiency (yellow margins and areas between the veins).

Foliar Urea. Foliar application of urea may counteract some of the N deficiency seen in vineyards. Five lb of urea (which is 46% N) in 100 gallons per acre of spray solution should be very safe. Dr. Lailiang Cheng indicated to me that this could probably be safely concentrated to 5 lb urea in 50 gallons per acre spray solution. Dr. Cheng recommended 2 to 3 sprays at one-week intervals. I might add a couple of points here, based on our experience with the ATA project over the past several years: 1) Foliar applied N at this time will not cause vines to start active growth again. 2) Much of the N absorbed through the foliage might end up being translocated (moved) to the fruit. This should be beneficial. Later season applications (even post-harvest) might be transported to canes and roots as vines enter dormancy. This could improve the level of vine reserves and improve winter hardiness.

CROP DISASTER ASSISTANCE AND INSURANCE UPDATE

Timothy E. Martinson

On Thursday, August 19th, we held a meeting in the Yates County office building to review important points about both ongoing disaster programs for grapes and Crop Insurance for 2004. In this article, I'd like to summarize some of the points covered by the speakers. If you have had a crop disaster this year or if you will be purchasing crop insurance for next year (and I think all grape growers should at least take a

look at it), I hope to touch on some important considerations and reminders of what you need to do to participate in these programs.

Disaster Assistance. Phil Morehouse, Farm Services Agency (FSA) County Executive Director for Yates and Steuben Counties, described emergency loan programs available to grape growers as a result of a disaster declaration filed through his office.

How crop emergency disaster declarations are made. Crop disaster declarations are made by following a multi-step process. The process starts when a local representative (Such as the Yates-Steuben FSA office) notifies the governor's office of the disaster condition. This notification must occur within 90 days of the event (which in our case was the low temperatures that occurred on January 9-12). Then FSA county offices assemble loss information for a damage assessment report. Following this, the governor's office makes a request to the federal government for a disaster declaration. This year, Phil Morehouse took the lead in documenting the winter injury so that a disaster declaration could be made. I thank Phil for his attention to this and leadership in getting the disaster declaration in process.

What does a disaster declaration do? Federal disaster declaration makes growers in primary counties (In this case Steuben, Yates, and possibly Ontario counties) and adjacent counties (Seneca, Schuyler, Monroe) eligible for low interest loans at 3.75% interest if they suffer more than 30% crop loss.

How does a producer apply for low-interest loans? Applications are made through the local FSA office. To be eligible, producers need to be turned down by 3 commercial lenders, they need to have a 'conservation farm plan' in place, and in some cases must subsequently obtain crop insurance. Losses must be documented by the FSA, in general with yield histories for the blocks involved. Income and production history must be provided. Loans become first lien on the collateral to which they are applied.

Tree Assistance Program. The other program Phil Morehouse talked about was the Tree

Assistance Program. This program was authorized by the 2002 Farm Bill, but each disaster must be funded through a special appropriation by Congress. The NYS Wine Grape Growers and NY Farm Bureau are currently contacting legislators to ask them to sponsor legislation to fund losses stemming from winter injury in the Finger Lakes.

The program provides 75% cost-sharing (grants, not loans) for replanting costs. Losses must exceed 15% above 'normal' attrition. Costs must be documented with receipts, but a typical range would be \$2.50 per vine plus vine cost. For a typical planting density of 800 vines per acre, that might work out to:

$$800 \text{ vines} \times (\$2.50 \text{ planting cost} + 3.50 \text{ vine cost}) = \$4800 \times 75\% \text{ cost-sharing} = \$3600 \text{ per acre.}$$

An important point: Vine loss must be documented. The easiest way to do this is to contact the local FSA office *before* removing any dead vines. **Although the program is not a sure thing at this point, be sure to call FSA to have them document any losses before you remove dead vines.** Otherwise you might have to come up with receipts for the original vines when they were planted.

Each producer is limited to \$75,000 per person under this program (shouldn't be a problem for most), and adjusted gross income needs to be under \$2.5 million dollars (this shouldn't be a major problem either).

We will keep you posted on further developments with regard to the Tree Assistance Program and Disaster assistance. It is up to those of you who have suffered crop or vine loss to contact your local FSA office to report it to them. Taking this step will ensure that you will be able to participate in any programs that may result from the disaster declaration.

Here is a contact list for local FSA offices:

FSA COUNTY OFFICES IN NEW YORK

COUNTY	LOCATION	PHONE	CED and FLM
Ontario	3037 County Rt. 10 Canandaigua, NY 14424	585 394-0525	Joann Rogers Gerald Killigrew
Seneca*	12 N. Park St., Seneca Falls, NY 13148	315 568-6346	Kathy Tinklepaugh
Steuben*	415 W. Morris St., Bath, NY 14810	607 776-7398	Phil Morehouse
Tompkins /Schuyler *	903 Hanshaw Rd., Ithaca, NY 14850	607 257-2737	Kathy Tinklepaugh
Yates*	270 Lake Street Penn Yan, NY 14527-1803	315 536-4012	Phil Morehouse

*Shared Management 09/07/04

Crop Insurance. Charlie Koines, Crop Insurance Educator summarized various points about crop insurance. The main points covered were:

- Deadline for purchase this year is **November 20**. This means that you should be contacting your crop insurance agent by early November to check out coverage and rates.
- Hybrid and Native juice and wine grapes are insurable if they have reached the fourth (Concord, Niagara, Elvira) or fifth growing season, and produced an average of 2 T/acre in one of the 3 most recent crop years.
- *Vinifera* grapes are insurable only by individual agreement. Production records for previous 5 years are needed, and at least 1 year with more than 2 T/acre required. *V. vinifera* coverage also requires a vineyard inspection to evaluate the risk and insurability. Underwriting agents use maps (and other means) to evaluate risk potential

- Losses covered include adverse weather, wildlife, insect and disease injury *as long as growers follow a recommended disease and insect management program.*
- Varieties are ‘grouped’ within several categories. For example, Cayuga White, Rougeon, and Seyval Blanc are grouped together and considered as one type for the purposes of underwriting and claims. The same holds true for *V. vinifera* varieties. This is one of the more controversial aspects of the insurance program, because sometimes one variety will have almost a total crop loss, but if grouped with another variety that suffered little loss, the two are lumped together.
- Growers can elect different levels of coverage from 50 to 75% of average yield. Premiums are subsidized at 55-67% (grower pays 33-45%), depending upon the level of coverage.
- Farms may be insured as a single unit or multiple units. Multi-units (non contiguous land) pay a 10% premium over single units. This is generally worth it, because each unit is then considered separately for claims.
- Quality Adjustment. Crop insurance allows claims for loss of value due to poor quality. This is a very nice and underappreciated aspect of the program. If the grapes have under 75% of their ‘expected’ value due to quality issues, then claims can be made to recover some of the lost value. As an example, a grower was able to use a sorting table to sort his Cabernet Franc into ‘ripe’ (for the varietal Cab Franc wine) and ‘unripe’ portions (blended into lower-priced proprietary blends), and make a claim for the lower-value portion of the crop. Presumably, if part of your crop was unusable due to powdery mildew, you could file a claim for lost value as

well. Unresolved by the program is how to determine objectively what the 'true value' and 'distressed value' is.

- Claims process – Growers need to notify their insurers as soon as possible after suffering the loss (within 72 hours – its not clear how this applies to winter injury, which may not be immediately apparent. If there is a partial loss, a notice of claim must also be filed at least 15 days before harvest.
- Catastrophic (basic) coverage is available for \$100 to hybrid and native producers, but pays 50% of average yield, at 55% of the 'price election' (price listed for each variety grouping). Therefore with maximum coverage, the most a grower could collect would be $50\% \times 55\% = 27.5\%$ of the dollar losses. That is a drawback, but is offset by the fact that 100% of the premium is subsidized, and the \$100 administrative fee is all you pay, regardless of acreage. If you have no other coverage, buying catastrophic coverage should be a 'no-brainer'.

In general, growers have had fairly good experience with the claims process, although some have mentioned spending considerable time hashing out the specifics with adjusters. However, growers DO have a few issues with the program as it is currently constituted. The major complaint centers on the variety groupings. California producers are able to insure each variety separately, yet here varieties are grouped, with resulting lower payoffs if one variety in the group has severe damage and the other has little or no damage.

Farm Bureau, Wine Grape Growers, and Disaster Assistance. I wanted to briefly mention remarks made at the end of the meeting by Mark James. He stated that these two organizations are going to lobby Washington to ask for appropriation for the Tree assistance Program to cover 2.1 million dollars estimated replanting costs for the Finger Lakes. The

organizations will be attending the September 21 Farm Day (lobbying day in Washington). Mark also urged growers to voice their complaints or issues with crop insurance or other issues by attending their county annual meeting (held in October in most counties), so that these issues can make it into their policy book. The policy book is what Farm Bureau uses to guide and plan their lobbying efforts.



*Senator **Hillary Rodham Clinton** joined grape growers for lunch at Lakewood Vineyards. In her after-lunch talk Senator Clinton cited crop insurance and value-added export programs as important priorities for NY wine and juice grape producers. The visit was organized by National Grape Cooperative. Approximately 60 growers were in attendance, most members of National Grape Cooperative.*

UPCOMING EVENTS

In late October, we will distribute the annual *Harvest Edition* of Finger Lakes Vineyard Notes, with a complete review of the growing season, market trends, price trends, and research and extension activities that have taken place in the Finger Lakes this year. At that time, we will compile a listing of upcoming winter meetings and events. In the meantime, lets hope for some sunshine and heat to ripen the grapes and a drier harvest season. Happy harvesting!

GRAPE PRICES 2004																					
	Aurora	Baco Noir	Cabernet Franc	Cabernet Franc, premium	Cabernet Sauvignon	Cabernet Sauvignon, premium	Carmine	Carmine, premium	Cascade	Castel	Catawba	Cayuga White	Chambourcin	Chambourcin, premium	Chancellor	Chardonnay	Chardonnay, premium	Chelois	Colobel	Concord	Concord, premium
Anthony Road		525	1500		1500							520				1100					
Atwater Estates	300	600	1550		1600						400	500	800		600	1200		600	550	300	
Bully Hill	290	390	1650		1650					700	290	450	900		700	800		900	700	300	
Canandaigua	280		1700		1700						190									235	245
Catherine Valley			1700									550				1400					
Chateau Lafayette Reneau		500									300	500									
Cliffstar																				145	
Dr. Konstantin Frank			1500		1650											1300					
Fall Bright	325	540	1650	1750	1650	1750	1600	1600			320	550	850	950	700	1400		550	750	320	
Fox Run			1600		1600							500				1100					
Fulkerson's	300	525	1650		1700				400		325	500			600	1300		600	600	300	
Glenora		500	1300		1500							500				1300					
Hazlitt 1852		550	1600		1600							400				1300					
Hermann J. Wiemer			1500													1300					
Heron Hill		600	1600		1700							550				1400					
Hunt Country		550	1700								300	500				1500					
King Ferry			1700													1400					
Lakewood Vineyards		550	1600		1600						350	450				1400				375	450
Lucas		550										500				1400					
Miles			1600		1650						350	600				1400					
Mogen David																				240	
Rooster Hill		525	1650		1750							600				1400					
Springledge	235										210	500				1200				235	
Sheldrake Point			1700									500									
Swedish Hill			1200	1600	1800						325	500	950			1000	1400			275	
Average	288	531	1583	1675	1643	1750	1600	1600	400	700	305	509	875	950	650	1280	1400	663	650	273	347.5
High	325	600	1700	1750	1800	1750	1600	1600	400	700	400	600	950	950	700	1500	1400	900	750	375	450
Low	235	390	1200	1600	1500	1750	1600	1600	400	700	190	400	800	950	600	800	1400	550	550	145	245
# of Responses	6	13	20	2	15	1	1	1	1	1	11	19	4	1	4	20	1	4	4	10	2

GRAPE PRICES 2004																					
	DeChaunac	Delaware	Delaware, premium	Diamond	Dutchess	Elvira	Gamay Beaujolais	Gewurztraminer	Gewurztraminer, Premium	Glenora	Golden Muscat	GR7	Himrod	Hybrid - Red	Hybrid - White	Kerner	Isabella	Ives	Lakemont	Lemberger	Leon Millot
Anthony Road																					
Atwater Estates	400	350		400	350			1450					400						300		525
Bully Hill	350	300				230		1500									380				600
Canandaigua		225				260								325	280						
Catherine Valley																					
Chateau Lafayette Reneau																					
Cliffstar																					
Dr. Konstantin Frank								1600												1500	
Fall Bright	450	375		395			1550	1450													600
Fox Run								1400												1000	
Fulkerson's	400	350		400	350			1600					550						350		525
Glenora		450						1500			500			450	450		450				
Hazlitt 1852								1650						350							
Hermann J. Wiemer								1500													
Heron Hill								1400						450	450						
Hunt Country	400	400									500			500	300						
King Ferry																					
Lakewood Vineyards		425	600														425				600
Lucas	450										500										
Miles		400						1600												1475	
Mogen David																					
Rooster Hill																					
Springledge		190				225								200							
Sheldrake Point																					
Swedish Hill		325		435							370	275		300	500		435			1475	
Average	408	345	600	408	350	238	1550	1514	0	0	370	444	475	368	396	0	443	403	325	1363	570
High	450	450	600	435	350	260	1550	1650	0	0	370	500	550	500	500	0	450	425	350	1500	600
Low	350	190	600	395	350	225	1550	1400	0	0	370	275	400	200	280	0	435	380	300	1000	525
# of Responses	6	11	1	4	2	3	1	11	0	0	1	4	2	7	5	0	2	2	2	4	5

GRAPE PRICES 2004	Rosette	Rougeon	Sangiovese	Sauvignon Blanc	Sereksia	Seyval	Seyval, premium	St. Vincent	Syrah	Table grapes	Traminette	Ventura	Verdelet Blanc	Vidal Blanc	Vignoles (Ravat)	Vignoles Late Harvest	Vincent	Vinifera - Other	Vinifera - Red	Vinifera - White	Vignier		
	Anthony Road		475													750	3000						
Atwater Estates	430	400	1600			425					800			500	600		550						
Bully Hill	380	390				440					900		530	500	800								
Canandaigua												260											
Catherine Valley											900												
Chateau Lafayette Reneau						500																	
Cliffstar																							
Dr. Konstantin Frank					1600																	1600	
Fall Bright							575							580	800	1200							
Fox Run		400															650						
Fulkerson's	375	400				600		475			1000			600	800		500						
Glenora	500	500				500														1200	1200		
Hazlitt 1852		450				400								400	500								
Hermann J. Wiemer																							
Heron Hill				1500		550					1000			550				1300					
Hunt Country						500									650	850				1200			
King Ferry		475												600		1500							
Lakewood Vineyards														500	600		650						
Lucas		450																					
Miles									1600					600	800		650					1600	
Mogen David																							
Rooster Hill						550					900			650									
Springledge																	550						
Sheldrake Point																							
Swedish Hill		420									900			550			700			750	650		
Average	421	436	1600	1500	1600	496	575	475	1600	0	914	260	530	548	700	1638	607	1300	1050	925	1600		
High	500	500	1600	1500	1600	600	575	475	1600	0	1000	260	530	650	800	3000	700	1300	1200	1200	1600		
Low	375	390	1600	1500	1600	400	575	475	1600	0	800	260	530	400	500	850	500	1300	750	650	1600		
# of Responses	4	10	1	1	1	9	1	1	1	0	7	1	1	11	9	4	7	1	3	2	2		

Finger Lakes Grape Program
CCE of Yates County
417 Liberty Street
Penn Yan, NY 14527