FINGER LAKES
Vineyard Notes

Newsletter 11 December 20th, 2004

Cornell Cooperative Extension

Finger Lakes Grape Program

IN THIS ISSUE . . .

John Santos of Hazlitt 1852 Vineyards demonstrated composting techniques at a December 1st field meeting at the winery.

CURRENT SITUATION

Timothy E. Martinson

The end of the year and holidays are approaching. Many growers of Native grapes have gotten a good start on their dormant pruning. Those with grafted grapes have completed their hilling-up operations. Our mild fall allowed grapes to ripen this year and the gradual decline in temperatures bodes well for a grapevine's ability to increase cold hardiness to its maximum potential for the variety. I worry about some of the vineyards that were defoliated early by downy mildew, but I feel that the majority of vineyards should be in better shape to weather the winter than they were last year.

For me, the month of December is taken up by report-writing, grant writing, and planning for the winter meetings. Looming large on the horizon is the **56th Annual Finger Lakes Grape Growers Convention** on March 4th and 5th at the Waterloo Holiday Inn. We're in the middle of putting together what I hope will be an informative set of presentations, along with a few guest speakers that should be of broad interest. Friday will be devoted to breakout sessions on a variety of topics, while Saturday will include the trade show many of our traditional updates on pest management (and credits).

As always, the program will end with the Finger Lakes wine and cheese reception. Registration for the two days will be separate, with a discount for 2-day registration.

Look for a complete agenda and registration form around the middle of January.

In this issue, please note the upcoming AGR/AGR-Lite crop insurance meeting scheduled for January 4th at our office building (Auditorium). The remaining articles are about financial and market issues.

It's been a challenging season for Finger Lakes grape growers and I'm sure many of you are glad its over!

My best wishes to you and your families this holiday season, and here's hoping for a prosperous 2005.

AGR/AGR LITE INSURANCE MEETING JANUARY 4 IN PENN YAN

Timothy E. Martinson

While the sign-up period for conventional (multi-peril) crop insurance is over, growers still have until January 31st to sign up for adjusted gross revenue (AGR - available in some counties, but not Schuyler county) or AGR-lite insurance (available everywhere). Grape growers with diversified markets and (possibly) uninsureable vinifera vineyards could benefit. Apparently, the more crops you have, the better level of coverage you can obtain. The program defines juice grapes, labrusca wine grapes, hybrid grapes, and vinifera grapes as 'separate' crops. If you sell to a couple of markets and/or grow other crops (and livestock) besides grapes, this may offer you a good alternative or supplement to conventional crop insurance. The following press release describes things a bit more fully. Along with the AGR and AGR-lite, Phil Morehouse of Yates/Steuben FSA will describe the NAP (Noninsured Agriculture Program) program, and may also touch upon disaster assistance programs for grapes. This meeting is free and open to the public. Pre-registration is not necessary; call 315-536-5134 with questions.

AGR or AGR-Lite: Revenue Protection Crop Insurance That May Work for You! A new and streamlined revenue protection policy called AGR-Lite is available to New York agricultural producers. On January 4th, 2005, at 9:00 a.m. in the Yates Co. Auditorium, 417 Liberty St, Penn Yan, both revenue protection policies, AGR and AGR-lite, will be discussed by representatives from Cooperative Extension, USDA and the private sector. Discussion will also include the Noninsured Crop Disaster Assistance Program (NAP), administered by USDA: Farm Service Agency. Case studies will be highlighted in concurrent sessions regarding the use of revenue protection policies. Case studies will emphasize diversified fruit, diversified vegetable, grape, direct marketing-value added, and an organic case study. Producers already using the regular protection policy called AGR will have an opportunity to review the new AGR-Lite protection policy in order to determine which would work best for their situation.

Farming operations which may find AGR-Lite of benefit include: farms under $500,000 gross revenue, farms with diversified cropping plans such as fruits and vegetables, direct marketers with less then 50% of sales from crops or other commodities purchased for resale, farms with gross revenue fluctuations due to low yields, variable quality, or low prices, dairy farms with sales from other enterprises, and organic producers.

Producers too large to quality for AGR-Lite are generally those with revenues over $500,000. Livestock operations in which more than 35 percent of the allowable income is from animals or animal products cannot be insured under AGR.

PESTICIDE TRAINING AND CERTIFICATION COURSES ANNOUNCED

Pesticide Training and Certification courses have been scheduled by Cooperative Extension programs in the area. These are useful for anyone who needs or wants to become a certified pesticide applicator.

Jud Reid of Yates County CCE is instructor for the Penn Yan sessions (315-536-55123) and Russ Welser, Ontario County Cooperative Extension (585-394-3977, extension 31 or 38) is offering classes in Rochester, Romulus, Newark, and Canandaigua. Dates are:

Penn Yan: January 13, 20, 27, Feb 3. Yates County Auditorium, 417 Liberty Street Penn Yan, NY 1:00-3:00, Exam: February 10@ 1:00 - 3:00 PM
Rochester: Jan. 25, Feb. 1, 8, 15 Cooperative Extension Center, 249 Highland Ave., Rochester, 1:00 - 3:30 p.m., Exam: February 24@1:00-5:00 PM
Romulus: Jan. 27, Feb. 3, 10, 17 Romulus Fire Hall, Cayuga Rd, Romulus, 1:00 - 3:30 p.m., Exam: February 24 @ 1:00-5:00 p.m.
Newark: Jan. 28, Feb. 4, 11, 18, Cooperative Extension Office, 1581 NYS Route 88N, Newark 1:00-3:30 PM, Exam: February 25 @ 1:00-5:00 p.m.
Canandaigua: Mar. 3, 10, 17, 24, Cooperative Extension Center, 480 North Main Street, Canandaigua, 7:00 - 9:30 p.m., Exam: March 31 @ 7:00-11:00

I have included registration forms and instructions. One is for the Penn Yan classes; the other is for the Rochester, Romulus, Newark and Canandaigua classes. Please contact Judson Reid or Russ Welser at the numbers listed above for any questions about the classes.

UPDATE ON DISASTER ASSISTANCE PROGRAMS

Phil Morehouse
Director – Steuben and Yates County
USDA Farm Services Agency

Now that the President has signed the disaster program legislation, many questions are being asked about the program and when you may begin submitting applications. It is not expected that the local offices will have the regulations and begin taking applications until

early next year. Watch your newsletter for an announcement.

When disaster assistance becomes available, make sure you have the documentation to support a loss claim. We encourage you to keep good production documentation. Your records should show:

- Planting dates and stand density
- Herbicide/insecticide/fungicide applications,
- Harvest dates and quantities supported by receipts

Be very specific about the quantities harvested. If the crop is used in your own winery, detailed daily logs and weigh slips will be important. If you were insured, be prepared to provide copies of your loss documentation from your insurance company. You need to ensure your records are reliable and verifiable.

Besides the above information, growers should also contact the office if they intend to remove any vines that were killed last winter **before** they are removed. You should also file a detailed, block by block acreage report with FSA if you have not already done so. The office will provide aerial photos for this purpose.

RISK MANAGEMENT FOR FRUIT AND VEGETABLE GROWERS

Jayson K. Harper
Professor of agricultural economics
Dept. of Agricultural Economics and Rural Sociology
The Pennsylvania State University
Gerald B. White
Professor of agricultural economics
Dept. of Applied Economics and Management
Cornell University

When considering profitability, many people outside the industry are often seduced by the potential of fruit and vegetable production. Compared to most agronomic crops, horticultural crops offer the opportunity to produce a fair amount of income on a small acreage. As a fruit or vegetable grower, you understand that along with this income potential comes sizable risks. These risks can be categorized as either those which impact on receipts or those which relate to the cost of production.

Yield and Price Risk. Receipts are the gross returns (price times yield) from production. For most perennial horticultural crops (tree fruits and nuts, small fruits), receipts are zero for several years while the planting is in the pre-productive stage. Variability in both yield and prices will affect receipts. Your ability to deal with both types of variability will impact on the profitability of the enterprise. Large yields are not the important yardstick; having sufficient sales of high quality produce is what is important to profitability. Poor quality produce results in either lower prices or less produce to sell because it does not meet the quality standards. In any event, receipts are reduced by poor quality produce.

Every year you face yield risk in the form of adverse weather and pest damage. In a perennial crop, this yield risk can take the form of year-to-year variability or more serious damage, reducing the long-term production potential of the planting. In extreme cases such as severe winters or wind damage, trees and vines are lost and have to be replanted. Although yield risk is important, it usually has readily identifiable causes and remedies. In the Northeast, for example, the quantity and distribution of rainfall is somewhat less than is required for optimal performance of fruit and vegetable crops and seasons in which moisture severely limits profitability occur perhaps two or three years in 10 for individual growers.

You can reduce the effects of yield risk through irrigation (see Cuykendall and White, 1998, Cuykendall, et al. 1999, and Lamont et al., 2001, 2002), pest management practices, and site and cultivar selection. Planting on well-drained soils and on sites with adequate air drainage can reduce yield risk considerably. In addition, multi-peril crop insurance (MPCI) is available for many fruit and vegetable crops grown in the Northeast to include apples, grapes, cabbage, snap beans (canning and processing), cranberries, peaches, pears, peas, peppers, plums, potatoes, stone fruit, sweet corn (canning and freezing and fresh market), and tomatoes (canning and processing and fresh market). While it is important to minimize the effect of yield risks and its impact on profitability, producers are usually much more equipped to deal with this type of risk than those associated with marketing.

Adjusted Gross Revenue (AGR) and AGR-lite are crop insurance products that can help you manage both production and market risk. AGR insures the revenue of the entire farm rather than an individual crop by guaranteeing a percentage of average gross farm revenue, including up to 35% livestock revenue. The plan uses information from the past five consecutive years of a producer's Schedule F tax forms to calculate the policy revenue guarantee. MPCI coverage is also required if program crops exceed 50% of farm revenues. AGR coverage is currently available throughout New England, Delaware, and New Jersey and in certain counties in Maryland, New York, and Pennsylvania. The maximum policy size for AGR is $6.5 million. AGR-lite is a new whole farm revenue product that provides protection for all crops and animal revenues. It is available throughout the Northeast to eligible growers with adjusted gross

revenues of up to $512,821 (based on a maximum protection limit of $250,000 annually at the 65% coverage level and the 75% payment rate). Unlike regular AGR, AGR-lite is streamlined in various ways and has no limitation on livestock income or requirement for the purchase of MPCI. The sign up deadline for both AGR and AGR-lite is January 31st.

Marketing Risk. Marketing plays a crucial role in horticultural crop production and should be planned well in advance of harvest. In fact, you really should be thinking of marketing prior to planting. This is particularly important for perennial crops where decisions about which varieties to plant are made several years prior to the first crop.

Knowledge of what the market requires (in terms of form and quality) and when is the key to success. Why do growers on good sites sometimes go out of business, while others in less ideal production circumstances thrive? Often the difference is keen marketing insight. Developing a marketing strategy requires careful evaluation of the supply and demand for your product and investigation of market alternatives. Successful marketers strive to produce products that satisfy basic customer needs and wants rather than simply selling products it produces. Strategic marketing planning requires specification of target markets, or the individuals or businesses that you have identified as your most desirable customers. Identifying your target market in turn drives decisions about products (including varieties and packaging), promotion, pricing, location, and distribution strategies (White and Uva (2001)).

Seven traditional (distribution) alternatives are generally available to horticultural growers: wholesale market, marketing cooperatives, local retail, roadside stands, farmers markets, pick-your-own, and processing. Other options such as rent-a-row/tree, community supported agriculture, and internet and/or mail order may be worth investigating depending on the nature of the farm operation, the population and demographics in your area (i.e. market potential) and the crops grown.

Wholesale marketing is often done on a producer assignment basis, where shippers market and ship the fruit for a predetermined rate. Whether a shipper is used to take the crop to the wholesale market or it is done by the individual, this marketing alternative is subject to the greatest price fluctuations. Marketing cooperatives generally use a daily-pooled cost and price, which spreads price fluctuations over all participating producers.

Local retail (selling directly to grocery stores) is another possibility, but considerable time must be spent in contacting produce managers and providing consistent quality when the store requires the produce. Roadside stands (either your own or another growers), pick-your-own operations, and farmers markets are other marketing options. Although they provide an opportunity for you to receive higher than wholesale prices for your produce, there may be significant expenses for advertising, trucking, building and maintaining a facility, and employing someone to service customers. In a pick-your-own (PYO) operation, harvest costs are saved, but you must also be willing to accept some wastage. Furthermore, if you direct market, you should understand that greater legal risk is faced when dealing with consumers directly. The risk of food contamination, injuries (especially for PYO operations), and other potential liability claims significantly increase the cost of insurance for many direct marketers.

Depending on location, processing may or may not be a marketing option. Processing prices are often much more volatile then fresh-market prices. However, successful processing cooperatives, such as Knouse Foods, National Grape Cooperative (Welch's), and Ocean Spray are examples of cooperatives in the Northeast whose marketing practices reduce variability of cash flow for their members as well as usually supplying a premium over cash market prices. For more information on markets and marketing alternatives, see Dunn, Harper, and Greaser (2000).

Organic production may be an alternative that could provide you with a marketing niche. Although the cost of certification and the time and labor involved in managing the system are high, average returns can also be higher than conventionally produced products, provided a market exists. Growing organically is not for everyone since it requires detailed record keeping and more management and planning than other production systems. More information on the organic certification process, system plans, and production practices (including plant selection, soil fertility, pest management, and crop selection) can be found in Sánchez, et al. (2003).

Price and quality are synonymous in horticultural crop production. Unfortunately, it is not always easy to know what is meant by "high quality" and quality judgments can vary from year to year. Federal grade standards do not exist for all horticultural crops and those that have them are often not very specific. Often there is only one recognized quality grade, U.S. No. 1, which means produce of "good average quality". Buyers, however, often have additional criteria by which they judge produce quality including flavor, ripeness, aroma, cleanliness, and the absence of pest damage and foreign material.

Proper disease management, harvest practices (including picker instruction and supervision), and post-harvest handling are critical to marketing success. Cooling produce to remove field heat and improve shelf life is especially important. Treatments to reduce decay may be another important consideration. Sorting and washing of some fruits and vegetables can also be done to help maintain quality and improve appearance. For certain crops like small fruits and other delicate produce, sorting and/or washing is not an option; harvest crews must be well trained and quality continuously monitored to assure a marketable crop.

Cost of Production. Horticultural crop production is not for the financially faint of heart. For certain vegetable crops, pre-harvest costs may amount to several thousand dollars per acre. For perennial crops, substantial initial investments are required and several years may go by before the first dollar returns to the operation. For most perennial crops, the pre-productive costs for land preparation and establishment are in the range of $2,000-$12,000 per acre, many times the cost of annual horticultural crops. This is the period where you are most exposed to financial risk. You need to realistically assess your ability absorb losses during this period and not rely on single enterprises for current and future income. For more information on financing options and financial risk management see Stokes, et al. (2005).

Naturally, growers complain when the costs of fertilizers and pesticides increase and they are often tempted to reduce these costs by cutting applications. In the whole scheme of things, however, these costs are relatively minor. It makes little economic sense to jeopardize overall profitability by trying to save a few dollars here and there. Once the crop is established, the major cost by far in horticultural crops is for harvesting and marketing. Labor management and costs are your primary concern, since labor often makes up 30 to 50 percent of total costs. Investing in production practices that reduce your yield and quality variability is rarely a waste of money.

Good labor management is a key to horticultural crop profitability. Because of the perishable nature these products, hand picking is often the only alternative. Understanding the labor market and planning for adequate and experienced labor is critical to having a high-quality crop ready for market. You must understand the federal, state, and local laws that apply to the use of agricultural labor. These laws include those relating to migrant and seasonal workers, immigration, child labor, wages and hours, withholding taxes, unemployment compensation, family and medical leave, worker's compensation, worker protection (pesticide exposure, safe workplace, field sanitation), and migrant housing. Communicating your firm's personnel policies is a key element in effective human resource management. For information on how to write an employee handbook, see Maloney and Petracek (94).

Horticultural crop budgeting. Understanding the magnitude of the financial risks and the nature of cash flows in horticultural crop production requires the preparation of enterprise budgets. Enterprise budgets represent estimates of the receipts (income), costs, and profitability associated with the production of agricultural products. Budgets are used to:

- enumerate the receipts (income) received for an enterprise
- enumerate the inputs and production practices required by an enterprise
- evaluate the efficiency of farm enterprises
- estimate benefits and costs for major changes in production practices
- provide the basis for a total farm plan
- estimate break-even price and/or yield for market planning purposes
- support applications for credit

Enterprise budgets should contain receipts (income) for every product and by-product of the enterprise. Prices should be used which reflect the markets you serve and the productivity of the enterprise given your specific resource situation (land, labor, equipment, etc.).

Enterprise budgets contain several cost components. Determining the costs of various decisions can be difficult. Frequently, individuals disagree over which costs to include and how they should be measured. Understandably, these differences arise because production costs are unique to each individual resource situation.

One of the more common classifications divides costs into variable and fixed costs. Variable costs are those expenses that vary with output within a production period. Examples include marketing, fertilizer, chemicals, fuel, repairs, and hourly or seasonal labor. Other terms used to describe variable costs include cash costs (or expenses), direct costs, and out-of-pocket costs.

Fixed costs include depreciation, taxes, interest on investment, land charges, annual labor, and insurance. Sometimes, a management fee is also included as a fixed cost. These costs are considered to be "fixed" because they generally remain at the same level within a production period and do not vary with the level of output. Indirect, non-cash, and overhead costs are other terms used to describe fixed costs.

Total costs are the sum of variable and fixed costs. Although your aim is to earn a return above total costs, this is not always possible. Because of yield or marketing conditions beyond your control, income received is sometimes less than the total costs of production. Should you continue to produce under these circumstances? The answer may be yes if: (1) returns are above variable costs and (2) it is a short-term condition. If your fixed costs are not covered in the long run, however, reinvestment in capital items (like tractors, implements, buildings, and equipment) is difficult and often the result is a depletion of the existing capital stock.

More information on the use of crop budgeting for farm management decision-making can be found in Greaser and Harper (1994). To help in the evaluation of horticultural crops for small-scale or part-time farmers, leaflets that include cost of production and marketing information have been developed by Penn State Cooperative Extension on asparagus, bell peppers, blueberries (highbush), broccoli, cantaloupes, cucumbers, onions, potatoes, pumpkins, red raspberries, snap beans, strawberries, sweet corn, tomatoes, and watermelons (available on-line at http://agalternatives.aers.psu.edu). Budgets on tree fruits (apples, peaches, tart cherries, and sweet cherries) can be found in Harper (2004). Budgets on small fruits (red raspberries, strawberries, highbush blueberries, and eastern thornless blackberries) can be found in Harper (2002). Establishment and production costs for American and *vinifera* grapes are available in White et al. (1997) and White et al. (2002).

Conclusions. Horticultural crop production has excellent profit potential and the ability to generate significant income on small acreage and limited resource farms. This profit potential, however, comes with a fair amount of risk. You must be prepared to not only produce a high quality crop, but also be an active and aggressive marketer. Initial investment is high and substantial annual cost of production requires you to be able to financially weather annual cash flow demands (and the costs associated with pre-productive years in fruit crops). If you can balance the demands of production and marketing, the future of fresh market horticultural crop production in particular appears very favorable. Per capita fresh consumption of most fruits and vegetables are rising which bodes well for the continued strength of fresh market prices.

Risk Management Web Sites.

Agricultural Alternatives
http://agalternatives.aers.psu.edu

Cornell Horticultural Business Management and Marketing Program
http://hortmgt.aem.cornell.edu

Northeast Center for Risk Management Education
http://necrme.org

Pennsylvania Crop Insurance Education
http://cropins.aers.psu.edu

References Available On Request

Reformulated Juice Blends Means Concord Overproduction - One Man's Opinion

Barry Shaffer
Lake Erie Regional Grape Extension Program
Reprinted from Lake Erie Crop Update, November 11, 2004

With some juice marketers trending away from using Concord grape juice we have lessened overall demand for Concord grape juice concentrate (GJC). Is there much hope to regain some of these juice marketers? I think it is an uphill battle, but possible.

In the meantime, the average 400,000 tons U.S. Concord crop is too large for today's needs. That is probably why we are seeing lower prices for Concord (both here and Washington State) than California Central Valley grapes destined for GJC. What would be a good equilibrium production number for U.S. Concord production? Others probably would come up with various numbers but I'll throw out 350,000 tons as a talking point. 50,000 tons of Concord production needs to go out of production nationwide.

How would the reduction in acreage be spread amongst the production areas? I think that most of the reduction will occur in the Tri-States and Washington State with a lesser amount from Michigan. How much should occur in the Lake Erie Grape Belt? I would say 10,000 tons of local Concord production should disappear. These 10,000 tons probably would equate to 2500 acres of lower yielding vineyards. This would be about 8% an acreage reduction.

This acreage reduction will probably come about over the next couple of years. This is the time to review your vineyard blocks and to prune out the consistently unprofitable blocks no matter what processors you market through.

FACED WITH LOW PRICES? CONSIDER JETTISONING YOUR WEAKEST BLOCK

Barry Shaffer
Lake Erie Regional Grape Program

Many juice grape growers are facing prices lower than their breakeven costs. One option is to get rid of blocks (or portions) that aren't covering operating expenses. Will this help your farm significantly?

Here is an example. Craig Cash is a 75-acre grower with 15 acres of Niagara (2 blocks) and 60 acres of Concord (7 blocks) all sold in the cash market. Craig has no nonbearing grapes and doesn't rent any vineyards.

Craig is a participant in the Lake Erie Grape Farm Cost Study (LEGFCS) and knows that his average cost per ton for the last 5-years is $200 per ton ($1200/ 6 t/a). At first glance this doesn't look too good facing $150 per ton costs. Craig needs to dig deeper to help his decision-making.
Craig decides to use $240 a ton for his Niagara production and $150 for Concord in his planning. He then decides to rank his blocks by average yields and expected returns. Here is the ranking:

Block(acres)	5-year yield	Income/a
Niagara (11)	7	$1680
Niagara (4)	6	$1440
Concord (6)	8.5	$1275
Concord (20)	7	$1050
Concord (14)	6	$900
Concord (7)	5.5	$825
Concord (5)	4.5	$675
Concord (1)	4	$600
Concord(7)	2.8	$420

Craig looks closer at his costs. His $1200 an acre average cost includes depreciation of $150 per acre so his average cash cost is $1050. Craig goes further and figures that his operating expenses per acre are around $700 per acre. Craig knows that he has fixed costs to consider such as property taxes, insurance, and interest that aren't going to change much, if any, with changes in acreage. Craig wants to see what changes he could expect if he abandons his lowest yielding vineyard.

If he did nothing different, he would be looking at income of **$76,770** (103 t @ $240+ 347 t @ $150)and expenses of **$90,000** for a loss of $13,770. If Craig quits operating his poorest yielding vineyard that will both reduce income and expenses. Income will be 103 t @ $240 + 327.5 t @ $150 =**$73,845** and expenses will be 90,000 –($700 X 7 acres)= **$85, 100** for a loss of $11,255.

Both options show losses but Craig can look at multiple options including reductions in fixed and/or operating costs and expansion with more profitable vineyard blocks. I would also look to see if there are ways to improve yields on his remaining blocks. Dumping an unprofitable block can certainly help improve Craig's situation but probably is not enough by itself.

TRAC-GRAPE SUPPORT MATERIALS AVAILABLE

Juliet E. Carroll, PhD
Fruit IPM Coordinator
NYS IPM Program, Cornell University
630 W. North Street, Geneva, NY 14456

We have developed some helpful support materials and posted them on the web. There are links to 4 new pages (Trac FAQs, Excel Tips, Trac Tips and Trac Basics) on in the Trac section, you can start at http://www.nysipm.cornell.edu/trac/index.html
The Trac FAQs are a comprehensive list of questions that Judy Nedrow and I have received, including detailed answers. We hope you find the information useful and, as always, we look forward to receiving input from you on how we can improve Trac software in the future.

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