We invite you to attend two field meetings and demonstrations to be held on the East side of Seneca Lake in July. Topics include spray technology & sprayer demonstrations, new developments in bird and deer control, and the nuts and bolts of canopy management for new vertically divided Scott Henry and Smart-Dyson training systems. These meetings will provide growers with a chance to look at several types of sprayers, have your questions about limiting deer and bird damage answered (for example, do dogs and invisible fences work? How much do they cost?), and see a truly outstanding example of how to make divided canopies function. John Wagner, vineyard manager at Wagner’s Winery, started experimenting with these systems in a few rows a couple of years ago, and has just this year converted the rest of his Cabernet Franc vineyard to this system. Come find out why, and which catch wires are moved up and down (and when to do so). Details follow:

**July 17, 2001, Valois, NY. 2 PM - 6PM. Spray Technology Demonstration Day.** This will be held at the Canandaigua Wine Company Vineyards, located just north of Standing Stone Vineyards about 2 mi S of Wagner Winery, on the west side of Rte 414, approximately 3 mi North of Valois. Look for signs. Andrew Landers has contacted 8 spray equipment manufacturers and area growers who will demonstrate spray equipment. Equipment to be demonstrated will include sprayers from Rears, CIMA, Hardi, Proptec, Red Trac (tunnel sprayer), Electrostatic Spraying Systems (ESS), Gregoire, Berthoud, Air-O-Tec, and Weedseeker. Wine tasting at Mike Doyle’s new Seneca Lake winery will follow. The DEC has awarded 3.5 Pesticide Recertification Credits for this meeting. Please bring your certification card with you, and be prepared to stay for the full afternoon to receive credits.

**Monday July 23, 2001, Valois/Lodi, NY 6:30 - 8:30 PM Twilight Meeting at Wagner Winery.** We will meet in the vineyard directly down the hill from the Ginny Lee Café at Wagners, Rte 414 between Lodi and Valois. Three topics will be covered: Paul Curtis, Wildlife control specialist will give an update on bird and deer control in vineyards. Canopy Management for vertically divided training systems - We will look at a Cabernet franc vineyard below the winery where John Wagner has converted Cabernet franc to Scott Henry and Smart-Dyson training systems, and will discuss the nuts and bolts of canopy management for these systems. Finally, Tim Martinson will discuss crop estimation techniques.

**ESTIMATING CROP YIELDS**

*Timothy E. Martinson*

Obtaining accurate crop estimates is becoming more important in the Finger Lakes. Those who sell smaller quantities of grapes to several buyers need to be able to plan for harvest to know how many tons they will have to sell to each buyer. For premium varieties, particularly those that ripen late (Cabernet Franc, Cabernet Sauvignon, Riesling,
Chambourcin), or are sensitive to cropping level (Pinot noir), estimates are important tools for deciding whether crop thinning is necessary, and how much to reduce crop through thinning. If you are aiming for a yield target for quality reasons, its important to know how much is there, so you will know how much to remove, if necessary.

**Yield Components.** Yield is determined by three factors – the number of vines per acre, the number of clusters per vine, and cluster weight. In our climate, all three can vary as a result of winter injury, pruning severity, cropping history, water stress, and environmental conditions during bloom, which influence both fruit set and bud initiation that can influence fruitfulness of next year’s canes. Estimating these three factors is the key to obtaining accurate crop estimates.

**Vines per acre.** This is the factor that probably varies the least- Everyone knows their row and vine spacing, and therefore the number of vines per acre, right? What’s important is the number of bearing vines per acre, so don’t forget to subtract skips and replants that won’t produce any fruit, particularly if you have had recent winter injury.

**Clusters per vine.** For most varieties, the number of clusters per vine is determined by pruning severity (nodes per vine) and bud fruitfulness (clusters per shoot). However, some of the hybrids can produce fruitful shoots out of basal buds and non-count shoots (those arising from latent buds). With these varieties (e.g. Seyval blanc, Dechaunac) it is more difficult to control crop (or predict cluster number) through pruning alone.

Cluster counts can be made at any time after developing clusters are visible on shoots. In general it’s less time consuming to count clusters as early as possible, before vine growth obscures them. In small (<5 acres), uniform blocks, counting clusters on 10 – 15 vines is sufficient to obtain accurate estimates. In larger blocks, or non-uniform areas, take separate samples in different areas, and sample more vines (again- at least 10-15 for every 5 acres, where growth and pruning severity is uniform). Count vines may be randomly selected, but it will probably work better to establish a grid to ensure that the entire block is represented. For example, in a block with 20 rows of 50 vines each, you may want to count clusters on every 10th vine in every 5th row to obtain counts from 20 vines.

**Cluster Weight.** Cluster number is set early in the season, but cluster weight can vary greatly from season to season due to environmental factors and cropping history. Heavy crops the previous year or poor acclimation can reduce the number of florets per cluster before bloom. Poor fruit set can reduce the number of berries per cluster. Finally, berry weight can vary due to moisture differences among seasons and other sources of vine stress. The number of berries per cluster is the most important variable influencing cluster weight. For example, in a vineyard with 800 vines per acre, 60 clusters per vine and 1.5 gram berries at harvest, each additional berry per cluster accounts for 160 lb of grapes per acre.

**Lag phase cluster sampling.** Historical cluster weights can be used with cluster counts to obtain rough crop estimates – if you have the records. Lag phase cluster sampling, however, can greatly improve the accuracy of these estimates. The lag phase is a period of 1-2 weeks when there is a pause in fruit growth. This pause occurs between the first phase (cell division) of berry growth after fruit set and the second phase (cell enlargement). Cluster weights obtained at this time correlate well with final cluster weights. For Concord grapes, the lag phase occurs about 30 days after bloom, at around 1200 growing degree days (Base 50 F). At this time, Concord clusters reach about half their final weight, so final cluster weight can be calculated by multiplying by two. For other grape varieties, timing of the lag phase and the ‘multiplier’ are probably similar, but this needs verification through further study. Sample at least 100 clusters, selected randomly from throughout the vineyard, weigh, and divide by the number of clusters sampled.

**Harvest cluster sampling.** Developing historical records for your block is important to refining your crop estimation program over the years. Collecting an additional cluster sample near harvest won’t help you predict yield or make management decisions about thinning for the current season, but it will help you improve the accuracy of your predictions for coming years. Records of average cluster weights can be used in future years with early cluster counts to make more accurate early crop estimates. By dividing cluster weight at harvest by the lag phase estimate, you can determine the appropriate multiplication factor to use in mid-season crop estimates.

**Putting it all together.** A seasonal program using the steps outlined above would be:
1. First estimate – A week or two before bloom, count clusters. Use historical cluster weights and multiply by cluster counts to estimate crop weight (lb.) per vine. Multiply crop per vine by the number of vines per acre and divide by 2000 to obtain tons per acre. Use this first estimate to guide early flower and shoot thinning, if necessary. [Note – if you don’t have historical cluster weight data, most Vinifera in the Finger Lakes have average cluster weights between 0.2 – 0.3 lb. Use the smaller figure for small-clustered varieties; larger end of the range for large-clustered varieties]

2. Second estimate – At 1200 growing degree days, or about 30 days after bloom, collect and weigh lag phase cluster sample. Multiply cluster weight by appropriate factor to estimate cluster weight at harvest. Use this estimate to make decisions about pre or post-veraison thinning. [The factor may vary from 1.8 to 2.9. For Conords, 2 works well, and some area growers have had good success using it with some vinifera as well. The Oregon Grape Growers Guide suggests that 2.2 is a good starting point for Pinot Noir]

3. Harvest estimate – Collect and weigh cluster sample before harvest, check against earlier estimate to refine estimates for next season, compare estimates with actual tonnage.

The needs of your operation will determine how much time you want to put into crop estimation, and how accurate your estimate needs to be. Some growers have had success using the eyeball method and their own experience, without counting or weighing clusters. For premium grape growers, my guess is that accurate crop estimates will become increasingly important to managing crop load and maintaining quality. Whether you use a simple system or the full program I have just outlined, the important thing is to maintain accurate records from year to year, so that you have a better basis for making improved estimates the following year.

References:

Oregon Winegrape Growers Guide, Oregon Winegrowers Assn, Portland OR 503-228-8403

I HAVE A LIGHT CONCORD CROP- WHAT DO I DO NOW?

Barry Shaffer
Lake Erie Regional Grape Program
Cornell Cooperative Extension

Many growers will be facing below average Concord yields this fall (particularly in the Lake Erie region – TEM). What can growers do now at this time in the growing season to reduce costs and manage taxable income?

1. Estimate your overall crop size. Reports indicate that other varieties did not exhibit the poor set seen in many Concord blocks. Your overall operation may not be so bad after all.

2. Forgo additional N fertilizer. If you split N applications and have not applied your second dose of N, SAVE YOUR MONEY AND DO NOT APPLY N.

3. Most of your crop expenses have already occurred. Many farms in the Lake Erie Grape Farm Cost Survey (LEGFCS) do not vary much from year to year.

4. Scout your vineyards for pests and only apply insecticides if the pest population meets economic thresholds. I would look at additional fungicide applications for problem areas and/or blocks that will be picked towards the end of harvest.

5. Use sulfur for powdery mildew management on sulfur-tolerant varieties such as Niagara, Catawba, and Elvira.

6. Cash market growers may want to go easy on fall pruning and roll most pruning costs into 2002 when, hopefully, the crop will be larger.

7. Spend time in your nonbearing vineyards; the sooner they can be brought into production the better. Neglecting young vineyards will cost you more in lost production then any short-term savings.

8. Capital purchases could be deferred to 2002. Conversely, better deals may be had during low crop years.
9. If you do make capital purchases in 2001, think twice about using Sec. 179. Talk to your tax professional about the options available to you.

10. Talk to your lender now if you are concerned about loan repayments due after harvest. Your lender is apt to have more time to devote to your situation now than after harvest.

11. Keep up your equipment maintenance schedule. This is not the year to suffer from avoidable repair bills!

SMART MARKETING INCLUDES SERVICES & RELATIONSHIPS NOT JUST PRODUCTS

Brian M. Henehan
Senior Extension Associate
Department of Applied Economics and Management
College of Agriculture and Life Science
Cornell University

In agriculture, we have a tendency in marketing to focus most of our attention on the hard products we produce and bring to market - fruits, vegetables, meat, grains, milk, or cheese. Today’s markets demand more attention to the services and relationships associated with marketing the actual product itself. The smart marketer is one who not only produces a high quality product, but also delivers needed services and builds effective relationships with customers.

A useful way to examine these questions of services and relationships is to begin with the old journalistic outline of - who, what, where, when, why, and how. We also need to understand distinction between a customer and the consumer. Our customers, may actually be consumers, if we are direct marketers. But, usually a relationship with some type of intermediary customer is required to get the farm product to the end-user, the consumer. Typical intermediary customers in the food system include: wholesalers, retail supermarket buyers, food service buyers, brokers, or processors.

Who are you doing business with? If you are a direct marketer, know your consumer. Who are they in regards to: age, income, residence, family size, gender, ethnic group, etc.? How is your consumer base changing? What services will enhance your relationship with your consumers? If you are working with other types of customers, learn about their operations: sales, distribution, terms of trade, transaction protocols, etc. How do your customers understand the consumers that buy your products? What information about consumers can they share with you, or you with them, to assist both of you in better serving them?

What makes your product superior? What differentiates your product from the rest of the pack? What will make your product more attractive to your customers or consumers? What will your product bring to the assortment of products your customer markets? What information can you provide along with your product (nutritional values, recipes, portion sizes, variety, etc.) to increase sales?

Where will your product have to end up to effectively serve your customers or consumers? How will your product hold up in transit? Will your product arrive in a package ready for store display or use in the kitchen? Are there any ways to make life easier for those who buy your products in regards to scheduling or delivery? Can you better coordinate shipping with other firms shipping similar products in your area?

When does your product need to arrive? Time is of the essence for all of us. How can you cut your customer’s time spent receiving or handling your product? Are there ways to minimize the time your consumer (convenient parking, checkout) or customer (processing invoices or payment) does business with you? Just-in-time delivery and automated inventory replenishment are becoming standard business practices in both the retail and food service industries.

Why should your customer do business with you in regard to the services you offer and the value you bring to the business relationship? Why should you be considered a “preferred” supplier by your customer? Why should your ability to attract consumers to your product add value to your customers business?

How will you better understand what services and relationships will be needed to insure the effective marketing of your products? In a rapidly changing marketplace, those services and relationships are changing. How will your services increase the productivity and profitability of your customers?

In summary, smart marketers not only deliver high quality products that are relevant to consumers, but must also provide valuable services to build effective relationships with customers. Hopefully,
answering some of these questions might shed some light on how to improve your marketing capacity. In the haste to produce the hard product itself, don’t forget the needed services and relationships that will keep your product on the shelf, on the plate, or in the hands of consumers.

"Smart Marketing" is a monthly marketing newsletter for extension publication in local newsletters and to place in local media. It reviews the elements critical to successful marketing in the food and agricultural industry. Articles are written by faculty members in the Department of Applied Economics and Management at Cornell University.

PROMINENT CALIFORNIA VINEYARDIST INVESTS IN FINGER LAKES

Press release

New York Wine and Grape Foundation

PENN YAN, NEW YORK-The Robert Young Family of Sonoma County’s Alexander Valley in northern California is purchasing over 100 acres of land on the west side of Seneca Lake in the heart of New York’s Finger Lakes wine region.

The prime acreage, just north of the village of Dresden, will be managed by Anthony Road Wine Company, a producer of premium Finger Lakes wines owned by John and Ann Martini. The likely mix of grape varieties includes Riesling, Chardonnay, Gewurztraminer, Pinot Gris, and other types of grapes particularly suited to the Finger Lakes region.

“We are excited about this investment, and eager to taste the wines that will result from it in four or five years,” said Robert Young. “For many years I have been impressed with the quality of many Finger Lakes wines, especially those from Anthony Road, so we look forward to a mutually beneficial relationship.”

Mr. Young is a legend of the California grape industry. His 350-acre vineyard in Alexander Valley consistently produces grapes of such excellent quality that it was among the first to warrant “vineyard designations” on wine labels (such as Chateau St. Jean Chardonnay, Robert Young Vineyard). He has served as the Chairman of the California Association of Winegrape Growers, the Winegrowers of California, and has been active in many other organizations. Last year he received the coveted “Integrity Award” of the Lodi-Woodbridge Winegrape Commission. In the past few years, Robert Young and his children established a winery, the Robert Young Estate Winery, in Sonoma County. “This opportunity brings me closer to my roots,” said Mr. Young. “My grandfather, Peter Young, was from Verona, New York near Utica, and came to California looking for gold. It was in 1858 that he settled in the Alexander Valley.”

Grapes from the vineyards near Dresden will be used to produce Anthony Road wines for the foreseeable future. Of the major “wine lakes” in the region (Canandaigua, Keuka, Seneca, and Cayuga), Seneca is the deepest, reaching over 600 feet at Dresden where the U.S. Navy operates a Sonar Test Facility. The deep waters moderate the temperature year-round-warming the winters, cooling the summers, and generating a perfect mix of warm days and cool nights during fall harvest--providing ideal conditions for growing premium wine grapes. The vineyard site has “Honeoye” soil, rich in lime with superb drainage needed by grapevines.

UPCOMING EVENTS

July 16-17 Red Newt Cellars, Hector, Seneca Lake. Vineyard and Winery Management’s Summer Seminar, a hands-on workshop for industry newcomers. Morning seminars followed by afternoon field demonstrations of equipment, visits to local vineyards and wineries. Exhibits, breakfast and lunch included. For registration, call: 800-535-5670.

July 17, 2001, Valois, NY. 2 PM - 6PM. Spray Technology Demonstration Day. Please see announcement on page 1 for more details.

July 23, 2001, Valois/Lodi, NY 6:30 - 8:30 PM Twilight Meeting at Wagner Winery. Please see announcement on page 1 for more details.

July 24-26, 2001. Field trip and Tour to southwestern Michigan. Barry Shaffer (Lake Erie Regional Grape Program) is organizing a trip that may be of interest to Finger Lakes growers. The tour will cover several SW Michigan vineyards, and include the annual Field Day at the SW Michigan Research and Extension Center, organized by former Finger Lakes Grape Specialist Tom Zabadal. For more information contact Barry Shaffer at 716-679-3185.

August 7-10, 2001, Kennett Square, Pennsylvania. Second Annual Eastern Pinot Noir Conference. The
The purpose of this conference is to critically taste Pinot Noir wines from across the region and beyond. Modeled after the incredibly successful Steamboat conference in Oregon, this event asks wine makers and growers to bring their wines to share and to be evaluated by their peers in an informal and casual setting. The goal is to improve our wines through the unrestrained sharing of knowledge and experience, both in the cellar and the vineyard. Entry to this event is limited to commercial producers only in an effort to assure the confidentiality of our conversations. For more information and registration, please contact Mark Chien at 717 394-6851 or mlc12@psu.edu.