

Developing Information Transfer Methods to Assist New Growers and Increase Efficiency, Diversity and Profitability in Bulk Juice Operations.

Project Leader(s):

Timothy Weigle, NYS IPM Program
Terrance Bates, Department of Horticulture, NYSAES,
Lake Erie Center for Grape Research and Extension
412 E. Main St., Fredonia, NY 14063

Cooperator(s):

Andy Muza, PSU Cooperative Extension, Lake Erie Regional Grape Program
Hans Walter Peterson, Viticulture, Finger Lakes Regional Grape Program
Tim Martinson, Viticulture, Cornell Cooperative Extension
Mark Chien, Viticulture, Penn State Cooperative Extension

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Grape Growing Regions of New York State and Erie County, Pennsylvania

Abstract:

The need for this project is two fold. The first is to address the educational needs of bulk grape (juice and wine) growers of New York and Pennsylvania in maximizing profitability through production efficiency and/or diversification into wine grapes for the small winery market.

The second main objective is to produce educational materials identified by extension associations, extension educators, grape growers and individuals looking into becoming wine grape growers as critical to the learning process. These materials will be packaged into a CD/DVD that can be provided to people interested in grape production as a reference that will give them answers to the questions they should be asking before purchasing land or putting a vine in the ground as well as providing linkage to web-based information for more in-depth topics as their viticultural knowledge grows.

Background and justification:

Issue – Grapes are ranked second in value of production among fruit crops in both New York and Pennsylvania. Approximately 40,000 acres of grapes are grown by 900 growers in the grape growing regions of New York and northwestern Pennsylvania. Ninety percent of this acreage consists of bulk juice and bulk wine varieties.

Producers of bulk juice and wine grapes have found the market to be volatile over the past 5 years. Using ‘Concord’, the predominate variety as an example: prices have ranged from a high of \$205 to a low of \$145 per ton. According to the Lake Erie Grape Farm Cost Survey 2001 – 2005 (Shaffer and White) the average cost of production per acre is \$1663 with an average yield of 6.4 tons per acre. Using these figures, an average farm would need to receive approximately \$260/ton to break even. Bulk grape growers in New York and Pennsylvania have typically responded to lower prices by trying to maximize yields through increased bud number. This can

lead to over cropping which can result in high and low crops in successive years as well as denser canopies which affects vine nutrition and water relations as well as being detrimental to insect, disease and weed management. There are three audiences that will be reached with this project.

- 1) Bulk juice and wine grape growers who want to remain bulk juice or wine grape growers.
- 2) Bulk juice and wine grape growers who want to diversify their vineyard operation with the addition of wine grapes for the small winery market.
- 3) Individuals who are new to the grape industry with little or no vineyard or ag experience

Response – A number of production practices have been developed by Cornell and Penn State researchers and implemented by the more progressive commercial ‘Concord’ growers. Yield Management, Mechanized Pruning, Mechanized Thinning, Insect and Disease Management and Record Keeping by Block are examples of the practices that will be used for the initial set of three minute videos and worksheets for those who want to remain with bulk varieties but need the information to determine the risk of implementing new practices. Existing growers who consistently make a profit producing ‘Concord’ and other bulk juice/wine grapes have been identified and the experiences of these growers will be highlighted in the production of educational materials for maximizing production efficiency.

Videos and worksheets are also being developed for existing growers looking to plant more profitable, yet riskier, wine grape varieties for sale to the small wineries in the area. While it may seem obvious that existing growers would have the knowledge necessary to grow any variety of grape, subtle to major differences in Site Selection, Pruning and Training systems, Integrated Pest Management Strategies, Floor Management and Nutrition, would suggest that some intermediate educational materials would greatly assist growers in determining if a move to a more intensive, higher skill level type of grape production is worth the risk.

Objectives:

1. Develop multimedia educational materials that will assist bulk juice grape growers in maximizing profitability through optimizing production efficiency and/or diversification into wine grapes for the small winery market. This information will be used to produce a multimedia manual of Vineyard Production in New York and Pennsylvania.
2. Develop a tangible multimedia resource that extension offices/programs can use in response to requests from people interested in starting a vineyard as well as easily transported, multimedia, in-depth, training modules for use by extension educators to build on existing ‘new’ grower training.

Procedures: list them for each of the numbered objectives

1. The grape industry was informed of this project and was invited to participate in the selection of video topics through regional grape program newsletters (hard copy and electronic), web sites and weekly Coffee Pot meetings in the Lake Erie and Niagara grape growing regions. Growers and industry field representatives were posed the following questions; 1) What are the top ten production practices that you use to ensure profitability in Concord grape production? and 2) What are the top ten things you would like to know

before getting into (or before you got into) wine grape production? Using this input and suggestions from research and extension staff, production practices were prioritized and shooting schedules were worked out.

2. Agendas from new grower workshops were used to develop topics for multimedia modules and video continues to be collected that will allow for the production of a multimedia resource for extension offices to use with new growers.

Results and discussion:

This is the first year of a two year project with the first year having a heavy focus on collection of video for the production practices identified by those involved in the New York and Pennsylvania grape industry. Video and audio of a wide range of production practices have been and are continuing to be collected.

Numerous first cuts of video have been produced representing the following practices:

- 1) Scouting
- 2) Pheromone trap assembly and use
- 3) Crop Estimation in 'Concord'
- 4) Crop Thinning
- 5) Soil and Petiole Testing
- 6) Vineyard Nutrition
- 7) Vineyard Mapping

These videos are being made available to members of the grape industry to gather input on the quality, quantity and usefulness of the content. We continue to collect interviews from growers who have implemented the practices as well as appropriate extension and research staff to put a face with the practice. One of the goals of the project is to come up with a three minute introductory video that can be used as a gateway to more extensive video clips as well as more in-depth information linked to publications, fact sheets and economic worksheets.

While originally not a part of the project, we have been able to capture video of seminars and meetings. We have produced a video of the informational meeting with the Lake Erie grape industry and the USDA-ARS Grape Genetics Research Unit based in Geneva, NY as well as a seminar presented by Dr. Martin Goffinet on grapevine buds, their development and the relationships between "flowering potential" and the effects of weather and management on potential.

The impacts from this project are still to come as the videos and supporting materials are completed and compiled and made available to growers and extension offices across the state.