

PRIORITIES FOR NY/PA GRAPE INDUSTRY 2009 RFP

Research proposed should contribute to the competitiveness and profitability of the New York/Pennsylvania Grape Industry. They include, but are not limited to, the following objectives:

- Continue research to optimize the yield and quality of Concord and Niagara grapes under varying climatic and soil conditions that leads to the development of a Seasonal Crop Load Management system which will enable grape producers to achieve optimal sustainable yields of mature fruit on a year-to-year basis.
- Continue the development of sustainable mechanized pruning and crop thinning equipment and techniques that optimize yield and quality.
- Determine the best vineyard floor management techniques and practices (such as through irrigation, mulching, etc.) that optimize water and nutrient availability.
- Continue the development of new crop protection materials and pest management strategies that will enable producers to manage pests in a cost effective, environmentally sound, sustainable manner.
- Improve the effectiveness and efficiency of spray systems (both existing and new) that will lead to improved spray target deposition, and lower cost that will ultimately lead to improved control of vineyard pests.
- Determine the “best management practices” associated with pruning levels, nitrogen fertilization and training systems, for Concord and Niagara grape vineyards planted to grafted rootstocks.
- Define those factors influencing the growth and functioning of roots, and develop root-management practices to enhance vine productivity.
- Develop more effective scouting protocols, and pest management strategies to control the Grape Berry Moth.
- Develop an effective “warning system”, scouting protocols, and management strategies for the Multi-Colored Asian Lady Beetle (MALB).
- Develop improved methods to determine vineyard nutritional status and needs.
- Develop methods to enhance and manage (control) fruit set through mechanical or chemical techniques.
- Develop better methods to define fruit quality (color, sugar/acid balance, soluble solids, aroma development, etc.). In addition, develop non-destructive methods to determine fruit quality in the vineyard in order to determine the optimum timing of harvest. .
- Develop site selection criteria and methodology to determine the suitability of locations for new grape plantings.
- Develop methods to genetically improve grape varieties, including Concord and Niagara, for resistance to pests and for increased productivity.

- Evaluate the potential health benefits associated with the consumption of Concord and/or Niagara based grape products.
- Develop Precision Agriculture techniques for vineyards through GPS and GIS systems that enable producers to more precisely manage inputs (nutrients, water, etc.) and evaluate outputs (fruit yield and quality) on a localized basis.
- Continue research defining and demonstrating the benefits of supplemental irrigation in Concord and Niagara grape culture including those associated with application systems, timing, soil moisture monitoring, economics, and effects on vine growth and crop quality.
- Continue the development of new and improved herbicides, alternative weed control techniques, and weed management systems that will provide more efficient, cost effective, and environmentally sound (benign) weed control in vineyards.