

Viticulture and Small Fruit Research

Viticulture and Small Fruit Research

V(A). Planned Program (Summary)

1. Name of the Planned Program

Viticulture and Small Fruit Research

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms				25%
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants				25%
205	Plant Management Systems				50%
Total					100%

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	0.0	5.0
Actual	0.0	0.0	0.0	4.5

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	0	319683
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	289941
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	309473

V(D). Planned Program (Activity)

1. Brief description of the Activity

Research studies were conducted to evaluate the impact of training/trellis systems and various canopy management practices on the production efficiency and fruit quality of three Florida bunch grape varieties- Blanc du Bois, Stover and Cynthiana and three Florida Muscadine varieties- Carlos, Noble and Fry. The grapevines from different treatment plots were carefully monitored and evaluated for various growth parameters during the growing season. A biotechnological approach was evaluated to improve disease tolerance, drought resistance and nutraceutical characteristics of grapes. Also, some innovative processing methods were studied to enhance the storage stability of Muscadine red wines.

2. Brief description of the target audience

The target audience included: commercial grape growers in Florida and southeastern United States, small farmers who are currently growing grapes or interested in starting this enterprise, extension workers, fresh fruitbuyers, food processors and public-at-large.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	0	0	0	0
2007	100	250	75	100

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year Target

Plan: 0

2007: 1

Patents listed

A new improved muscadine cultivar 'Majesty'

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	2	6	8

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Research and Extension publications; Grant proposals submitted and funded; Dissemination of results to stakeholders; Training of graduate and undergraduate students.

Year	Target	Actual
2007	0	0

Output #2

Output Measure

New improved varieties of muscadine grapes

Year	Target	Actual
2007	{No Data Entered}	1

V(G). State Defined Outcomes

O No.	Outcome Name
1	Greater profitability and competitiveness; Increased value of grape commodities; Improved cooperation between the industry, state and federal agencies resulting in transfer of technology that will lead to growth and higher economic returns for Florida Grape Growers; Increased acreage of grapes for fresh fruit and processing; Better trained graduate and undergraduate students.
2	Identification of genes associated with disease/insect resistance in muscadine grapes

Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

Year	Quantitative Target	Actual
------	---------------------	--------

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
---------	----------------

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought, weather extremes, etc.)

Economy

Public Policy changes

Competing Programmatic Challenges

Brief Explanation

The major external factors which affected the research outcome were: the continuous drought in North Florida and South Georgia reduced grape yields; increased incidence of insect infestation and associated higher cost; reluctance of new producers to plant grape vines or increase the existing acreage and diminished state support for grape research.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

After Only (post program)

Before-After (before and after program)

During (during program)

Time series (multiple points before and after program)

Evaluation Results

The Viticulture and Small Fruit Program at FAMU is the largest and best equipped facility dedicated to the warm climate grape research in the south and southeastern United States. The program holds the largest collection of muscadine germplasm in the world. Several new cultivars are at different testing stages. A new improved muscadine cultivar 'Majesty' was released to stakeholders (A patent has been filed by the university). The center conducted two major events for the stakeholders: a Field Day for providing hands-on training was attended by 30 grape growers and a Grape Harvest festival for public-at-large attended by 450 people. Ten students received training in viticulture. Three students conducted their Master's research on some aspect of viticulture. The faculty received several grants and published 8 papers.

Key Items of Evaluation

- Molecular Markers for Disease/insect Resistance in Muscadine Grapes
- Majesty- A New Improved Muscadine Grape Variety Developed at Florida A&M University
- Nutraceutical Properties of Muscadine Grapes
- Training Students in Viticulture