

An advanced school addressing integrated crop management of highbush blueberries

Final Report for ENE03-079

Project Type: Professional Development Program

Funds awarded in 2003: \$16,550.00

Projected End Date: 12/31/2005

Region: Northeast

State: New Jersey

Project Leader:

[James Barry](#)

Marucci Center for Blueberry and Cranberry Research

Project Information

Summary:

Note to the reader: Data on the workshop test results referenced below are on file in the Northeast SARE office, and can be requested by e-mail at nesare@uvm.edu. Also, please note that this report was not prepared by the original principal investigator, Sridar Polavarapu, who died in May of 2004.

The primary objective of this project is to host a 3-day workshop to provide comprehensive, science-based information on Integrated Crop Management of highbush blueberries. The core-clientele for this workshop includes county agricultural agents, university personnel serving in IPM programs, private consultants, and growers. Priority will be given to persons who serve as advisors to blueberry growers in the Northeast. The workshop will include classroom sessions, a laboratory session on diagnosis of major pests, and a field tour to several blueberry farms. Training materials including fact sheets, digital slides, and proceedings of the workshop will be produced for distribution to all workshop attendees.

The classroom session will discuss latest information on site selection, soil requirements, field preparation, cultivar choice, planting, pruning, soil fertility management, water management, harvesting, insecticides, fungicides, herbicides, management of insects, diseases, weeds, and wildlife, IPM programs, and marketing. The laboratory sessions will cover the identification of insects, diseases, and weeds. The field tours will highlight production techniques, and showcase the latest equipment. An expert panel will answer questions from the attendees. By providing comprehensive training to clientele who serve as advisors to blueberry growers, we will enhance profitability and sustainability of blueberry culture in the Northeast and throughout the U.S. Pre- and post-workshop surveys will measure changes in skills and knowledge level of core-clientele as a result of training received at the workshop.

Who Stands to Benefit: Cooperative extension personnel, staff of the state Department s of Agriculture, agribusiness consultants, and growers are the primary

beneficiaries of this project. These personnel from New Jersey, other States within the Northeast, and the rest of the country are expected to benefit from the educational program envisioned in this proposal.

Highest priority will be accorded to training Cooperative Extension personnel and other personnel who serve in an advisory capacity to train commercial growers. Personnel in this category include, in addition to Cooperative Extension personnel, IPM personnel, agribusiness consultants, and state nursery inspectors. Lower priority will be accorded to personnel from institutions outside the Northeast region.

Approximately 100 people are expected to participate in the educational program envisioned in this proposal. Several Cooperative Extension personnel, primarily Rutgers Cooperative Extension County Agents were consulted in developing our project. The leading blueberry County Extension Agent (Dr. Gary Pavlis) in New Jersey is a Co-Principal Investigator of this proposal. The core-curriculum for the educational program was developed in consultation with Dr. Gary Pvalis and his colleagues in Rutgers Cooperative Extension.

Profiles: Mr. John Howell is a County Agricultural Agent in the Cooperative Extension system. He delivers comprehensive educational programs addressing all aspects of Integrated Crop Management (ICM) to blueberry growers scattered throughout the state. He entirely depends on Cooperative Extension Specialists involved in applied research on various aspects of ICM for science-based information to deliver to growers.

Mr. George Walker has an agribusiness selling inputs to blueberry growers for the past 20 years. Growers consult him from time to time because of his experience, friendly disposition, and ready access. Mr. Walker relies on Extension Specialists and Agents for information.

Performance Target:

1) Of the approximately 100 core-clientele who attend the educational program, about half will develop and deliver a high-quality educational program to blueberry growers involving blueberry culture incorporating elements learned at the advanced school.

Verification of how targets are achieved: Pre- and post-workshop surveys will assess the quality and content of the educational programs delivered by the core-clientele. These surveys will provide information on the number of clientele who are incorporating the new educational tools in their extension programs. Surveys will also document improvements in the quality of extension programs of the core-clientele.

No milestones

Performance Target Outcomes

Additional Project Outcomes

Project outcomes:

1) Careful scrutiny of personnel involved in advising blueberry growers in the Northeast to identify appropriate personnel for receiving training. This process

identified the 100 most appropriate personnel to attend the advanced school. Invitations then went out to these individuals. After several weeks, another 100 people were also sent invitations.

2) Approximately 100 core-clientele will attend the advanced school to receive science-based information on all aspects of highbush blueberry culture involving classroom, laboratory, and field sessions.

OUTCOMES

A total of 68 people attended the Advanced Blueberry School and received science-based information on all aspects of highbush blueberry culture involving classroom, laboratory, and field sessions. Seminars and workshops involved scientists from Cornell University, Marucci Center for Blueberry and Cranberry Research and Extension, Michigan State University, North Carolina State University, Rutgers Cooperative Extension, Rutgers Experiment Stations, Rutgers University, USDA-ARS, and USDA-NRCS.

Pre- and post-workshop exams, which were identical in content, were conducted at 9am on March 30 and 6pm on April 1, respectively. The 25 question exam involved multiple choice and true/false questions on subjects including: insects, fungi, organic production, molecular biology, cultivars, weeds, and pesticides. On average, there was a 31% increase in the number of correct responses on the post-workshop exam, compared to the pre-workshop exam.

3) About half of the participants will develop and deliver a high-quality educational program to blueberry growers involving blueberry culture incorporating elements learned at the advanced school. This is the performance target of the proposal.

A survey was mailed out to the 68 participants of the Advanced Blueberry School on 20 January 2005 (9 months after Advanced Blueberry School). Responses were received from almost half of the participants (31 of 68). Survey questions assessed the value of coverage for different subjects to the participant, and different methods of educational outreach used by participants to disperse information learned at the school.

Approximately 87% of participants referred to the Advanced Blueberry School Proceedings after the meeting and almost all of the participants (~94%) found value in at least one of the seven core areas. Participants used information received at the meeting to provide educational outreach to over 5,000 people (based only on the 46% of participants responding). The true number of people benefiting is much higher, because several participants are in the process of producing publications that are not yet in press. Approximately, $\frac{3}{4}$ of all participants responding used some form of educational outreach, with the majority listing discussions with farm workers. Although the number of people affected was approximately 3x and 10x greater for presentations at grower meetings and grower publications, respectively, compared to discussions with farm workers.

Assessment of Project Approach and Areas of Further Study:

Potential Contributions

I believe that the Advanced Blueberry School was a huge success. Knowledgeable individuals from different disciplines were brought together resulting in benefits to a large number of people (>5,000). The conception and force that led to the occurrence of this event was the late Sridhar Polavarapu. His unending and limitless energy led to him giving several presentations, even

though he was stricken with pancreatic cancer, and died on 7 May 2004.

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture or SARE.



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