

I. Project Description: State Network Project (SNP)

A. Problem, Background, and Justification:

Problem Statement:

This proposal outlines how the Pennsylvania State Network Project (PA-SNP) through the Pennsylvania Pest Management Information Center (PMIC) can use currently established networks with the Pennsylvania division of the National Agricultural Statistics Service (PA-NASS), the Pennsylvania Department of Agriculture (PDA), University extension specialists, and commodity groups to serve the required functions by continuing to meet, but not limited to, the following objectives:

- 1) To serve as primary source for all requests regarding the use of IPM tactics and pest management practices in Pennsylvania;
- 2) Increase input from stakeholders through a functional advisory committee and develop ongoing interaction with IWGs;
- 3) Maintain a Web site and other communication pathways with the Northeastern IPM Center (NIPMC) as well as other key agencies and commodity groups; and
- 4) Acquire funding to support data collection and other objectives of the PMIC.

Background and Justification:

Since 1997, the office currently known as the PMIC has provided many of the services requested of the SNP. The following is a list of services provided in the past that are required of the SNP. The 2006 Progress Report for the Pennsylvania SNP can be found in Appendix A

- The PMIC Web site contains the required attributes and meets all of the Web standards required by the NIPMC. In addition, this Web site meets all of the federal accessibility guidelines. The primary purpose of the website is to provide access to crop profiles, PMSP's, regulatory decisions, pesticide use data, and other information compiled by the PMIC. The website can be viewed at <http://www.pested.psu.edu/infocenter/>.
- An advisory committee consists of the required and recommended members, including the state IPM Coordinator, two representatives of the state regulatory agency (the Pennsylvania Department of Agriculture), the Pesticide Education Coordinator, and 12 others, including research and extension specialists, commodity group representatives, and growers. An advisory committee meeting is tentatively scheduled for April 2007. In addition to the overall advisory committee, commodity specialists and grower recommendations will be solicited based on need for development of crop profiles and PMSPs.
- Served and continues to serve as a liaison among the NIPMC, The Pennsylvania State University (Penn State) as a land-grant institution, the PDA, the Environmental Protection Agency (EPA), and other appropriate agencies and commodity groups.
- Served and continues to serve as the primary source of information for federal and state regulatory agencies for pesticide use, and in other cases IPM tactics in all commodities throughout the Commonwealth. The PMIC often receives requests from federal partners for information regarding pest management practices used in the Commonwealth. This information can often be provided from the PMIC's extensive database. However, when necessary, the PMIC has facilitated the collection of these data from appropriate specialists and provided it to the requesting agency.

- The PMIC has had a longstanding working relationship with state and federal regulatory agencies. Representatives of the PMIC have been called on many times in the past to help facilitate requests of the Pennsylvania Pesticide Advisory board. For example, last year Dr. Richards was asked to make a presentation to the PA Pesticide Advisory Board detailing regulatory decisions and pesticide use changes that have occurred as a result of decisions made under the Food Quality Protection Act. Dr. Richards also serves on EPA's National Certification Training Assessment Group to address issues facing the EPA regarding pest management and pesticide safety training.
- Pennsylvania stakeholders have been and continue to be represented on the Northeast Regional IPM working groups with the following representatives:
 - Community Working Group:
 - Lyn Garling – Penn State Department of Entomology
 - Rick Johnson – Penn State Pesticide Education Program
 - Casey Sclar – Longwood Garden's IPM Coordinator
 - Fruit Working Group
 - Jim Lott – Pennsylvania Fruit Grower
 - Livestock and Field Crop Working Group
 - Mike Byers – Pennsylvania Certified Organic
 - Dennis Calvin – Penn State Department of Entomology
 - Tom Craig – Pennsylvania Producer
 - Lyn Garling – Penn State Department of Entomology
 - Kevin Mitchell – Crop Management Association
 - Dave Mortensen – Penn State Department of Crop and Soil Sciences
 - Dave White – Consultant for Willard Agriservices
 - Leslie Zuck – Pennsylvania Certified Organic
 - Vegetable Workgroup
 - Tim Elkner – Penn State Cooperative Extension Educator
- The PMIC reviews and compiles pesticide use and pest management practice statistics gathered in partnership with the Pennsylvania Field Office of the National Agricultural Statistics Service. This information is made available to regulatory personal when requests are made to help determine appropriate regulatory decisions.
- Coordinate the dissemination of regulatory decision making, both pending and final, through a well established, far-reaching electronic network and through the publication of four newsletters articles. The PMIC currently communicates regulatory decisions and requests for pest management information by sending more than 20 electronic communications through a mail (list) serve to approximately 250 agricultural researchers, extension specialists, extension educators, and members of the regulatory and grower communities.
- Coordinated in-service training for extension and research specialists, and regulatory and industry partners on accessing information regarding pesticides that are registered for use in Pennsylvania. In addition, this training links affected stakeholders with state and federal partners. The goal of this in-service training is to provide more immediate access to information regarding the current registration status of pesticides in Pennsylvania, and in addition to provide a search tool that can identify options to treat specific pest problems.

- Coordinated the distribution of funds under the subcontract provided by the NIPMC to PIs, co-PIs, and others providing services to the PMIC.
- In addition, the PMIC has successfully pursued grant funding from, and worked cooperatively with, commodity groups, EPA, and PDA to provide these and other services.

B/C: Objectives, Approaches and Procedures

The PMIC will continue to provide these services and fulfill the requirements of an SNP by meeting, but not limiting themselves to, the following objectives and procedures to accomplish these objectives:

Objective 1-

To serve as primary source for all requests regarding use of IPM tactics, and pest management practices in Pennsylvania. Improving the level of knowledge, awareness, and understanding of current grower integrated pest management (IPM) practices—including pesticide use—will help agencies and others make informed regulatory decisions. Another purpose of this objective is to provide actual crop production data based on sound science. The following four areas will be addressed as part of this objective:

- Serving as the primary information source for federal and state regulatory agencies regarding use of all IPM tactics, including pesticides.
- Serving as a liaison among the NIPMC, land-grant institution, and other key agencies in the state.
- Providing support for the Northeast Farm Managers meeting to facilitate information transfer among those who manage research facilities that can provide stakeholders with key research information, and respond to requests regarding information necessary for regulatory decision making.
- Providing information in a timely manner to commodity groups, growers, and extension and research specialists.

Procedures to accomplish Objective 1:

Procedure 1-1: The PMIC will assume the responsibility to consistently respond in a timely manner to requests for information and other assistance from IPM Working Groups (IWGs). When requests for information are received, the PMIC will electronically forward those request to appropriate Extension specialists, Extension educators and other appropriate individuals, commodity organizations, or grower groups.

Procedure 1-2: The PMIC will continue to improve and expand when necessary its network that currently links federal partners to agricultural researchers, extension specialists, and other stakeholders so that information on pest management practices is provided in a seamless and timely manner. One important group is the Northeast Farm Managers who are the front line at research facilities that provide valuable information regarding cutting edge pest management and potential availability of pesticide alternatives.

Procedure 1-3: With material available from crop profiles, pesticide use surveys, and other available production guides and fact sheets, the PMIC can serve as the primary information source and respond in a

timely manner to requests from regulatory agencies. For example, information provided may include, but is not limited to, actual crop production and IPM practices, including pesticide use practices for all commodities in the Commonwealth. In the absence of readily available information, the PMIC will contact appropriate specialists to collect the necessary data and provide the requested information to the requesting agency in a timely manner.

Procedure 1-4: The PMIC will continue to serve as a liaison with commodity groups, PDA, the National Agricultural Statistics Service (NASS), PA-NASS, and other state agencies.

Procedure 1-5: To ensure the availability of this information, the PMIC will compete for available funds to continue developing crop profiles, IPM tactic surveys, and PMSPs as part of the overall submission of this Request For Applications (see Objective 4).

Procedure 1-6: As part of this function, a member of the PMIC will attend the PDA Pesticide Advisory Board meetings; the NIPMC convened meetings, EPA regional and national meetings, and other functions as appropriate to act as a liaison among the NIPMC, the land-grant institution, and other key agencies in the state.

Procedure 1-7: Commodity organizations, growers, and extension and research specialists will be kept informed of requests for information, and the PMIC's response to such requests through an already established electronic network and through publication of articles regarding regulatory decision making in appropriate commodity organizations' newsletters. The PMIC's advisory committee will review the appropriateness of members on the current electronic network and suggest new members to include. The PMIC staff will annually update this electronic network to ensure accuracy of electronic mail addresses. Where possible and appropriate, members of the electronic network will be encouraged to forward information provided through their own previously established networks. One area for improvement during the next grant period is to develop specialized mailing lists to more closely target specific commodity groups and corresponding specialists. In addition, by working with commodity groups and publicizing the availability of these mailing lists to their members, we have the opportunity to broaden these distribution lists.

Procedure 1-8: Finally, over the next year, with the completion of final decision making under the FQPA, clear and concise information must be readily available to educate growers and all applicators regarding label changes and new product development. Educational materials will be developed and presented as appropriate to commodity organizations, grower groups, extension and other education specialists, and regulatory agencies promoting the function and importance of the SPN. This includes both the development of regulatory update programs and the critical review of similar programs developed by outside sources. Historically, the PMIC has produced several educational materials annually, either PowerPoint presentations, fact sheets, or by using other alternative media. Upon request, the PMIC manager has served as an invited speaker at commodity and other stakeholder meetings to present current regulatory information and appropriate update information.

Objective 2 - Increase input from stakeholders through a functional advisory committee and develop ongoing interaction with IWGs.

Procedures to accomplish Objective 2:

Procedure 2-1: To engage a broader range of stakeholders, the PMIC will hold advisory committee meetings as needed. The primary function of this advisory committee is to identify and prioritize critical needs and to evaluate activities of the SNP and other programs funded by this RFA. The structure of this

advisory committee also will help the PMIC facilitate the effective engagement of stakeholders with appropriate IWGs and other components of the NIPMC.

The advisory group will focus on identifying crops that the PMIC will cooperate with PA-NASS to survey regarding IPM/Pesticide Use, and in developing a priority list for crop profiles. This also will provide an opportunity to facilitate input regarding which commodities, mainly those that have not been selected by PA-NASS, may require IPM/Pesticide Use data collection via surveys based upon the PMIC's availability of funds. When appropriate the advisory committee will either meet, or input will be solicited electronically or via conference call, to provide an opportunity for advisory committee members to review the PA-NASS survey forms to determine whether additional information would be beneficial to collect through a supplement to the PA-NASS survey. This meeting also would provide the opportunity for input regarding publications or presentations that could be developed for the upcoming winter meeting season.

Membership of the current advisory group is constantly reviewed and members will be added to strengthen the diversity of commodities represented and broaden the group to include stronger representation from environmental and consumer advocacy groups, sustainable agriculture perspectives, and representatives of nontraditional agricultural areas. Where possible, members of IWGs that represent Pennsylvania also will be asked to join the advisory committee in an attempt to increase the awareness of IWG activities and priorities to avoid duplication of efforts.

Procedure 2-2: An electronic method of communicating with the advisory committee will be developed to encourage more frequent and open communication between members of the advisory committee. Electronic communication, conference calls, and sub-commodity meetings will be used as necessary to maintain continual contact with members of the advisory committee on an as needed basis. A Web site and other more permanent communication tools also will be continually updated as appropriate. These are outlined in Objective C.

Procedure 2-3: The PMIC will encourage and when possible support the participation of those previously mentioned that are active members of Northeastern IPM Center work groups. More specifically, Dr. Richards will continue her affiliation with the Vegetable IPM Working group with involvement in maintaining the Sweet Corn PMSP when updates are required. Rick Johnson, of the Pesticide Education Program's Urban Initiative, has become an active participant in the Community IWG. A portion of the funds requested will be used to support travel to facilitate participation in activities of the IWG's.

Objective 3 - Maintain a Web site and other communication pathways with the Northeastern IPM Center (NIPMC) as well as other key agencies and commodity groups.

Procedures to accomplish Objective 3:

Procedure 3-1: This objective will be met primarily by providing access to crop profiles, pesticide use data, and regulatory decisions through a user-friendly Web page that meets all of the criteria specified by the NIPMC. PMIC's current Web site is in compliance with these criteria and with tactics outlined in this RFA. However, the information regarding Section 18 and 24C exemptions, pesticide use survey information, and regulatory decision sections are currently undergoing revisions that will be completed by the first of the year. Information on this page will include, but will not be limited to the following:

- Crop profiles
- Information regarding IPM practices used by growers
- Pesticide use information
- PMSP's

- Pesticide regulatory issues
- Crop production guides
- Information from IWGs
- Links to PA IPM Problem Solver (which, as in the past, will be funded in part through funds requested in this proposal)
- Links to the NIPMC
- Links to regulatory agencies
- Links to pesticide registration, labeling, and MSDS information
- Links to a public version of NSPIRS

Procedure 3-2: This Web site will link the PMIC to new and existing partners and serve as a central access for all information that is produced by the PMIC. Web access to this information will provide growers and regulatory partners with the most current information to will facilitate informed decision making.

Objective 4 - Acquire funding necessary to support data collection regarding IPM practices, including pesticide use surveys, and to provide support for qualified individuals or groups seeking and receiving funds.

Procedures to accomplish Objective 4:

Procedure 4-1: The PMIC will submit for funds under other project types in this RFA, by requesting funding under the IPM Tactics Surveys, Crop Profiles, and PMSP's section of this proposal (included in this proposal) and from additional sources. The PMIC will solicit and acquire funding from outside sources to help facilitate data collection to have necessary information available to respond in a timely manner to requests from regulatory decision makers. The PMIC will solicit and facilitate applications from qualified individuals or groups under other project types in this RFA and will support and facilitate the efforts of qualified individuals or groups seeking and receiving funds.

Procedure 4-2: To facilitate the availability of the information frequently requested by regulatory agencies, the PMIC also will continue to pursue additional necessary funds, other than those awarded through this RFA. These funds will be solicited from partner agencies such as Region III EPA, PDA, and commodity organizations. Additional funds are necessary to collect data to prepare crop profiles, conduct, or facilitate the collection of pesticide use surveys, and to conduct or facilitate the collection and dissemination of information regarding IPM practices used by growers. Finally, the PMIC solicits funds that make financial support for specialists to provide data that is as close to actual crop production practices as possible.

Procedure 4-3: Ongoing contractual obligations are currently in place with PDA, EPA, and USDA that provide funds to facilitate, in part, accomplishing this objective.

Procedure 4-4: In addition, through an already established electronic network, the PMIC will continue to forward information regarding funding opportunities through this RFA and others as appropriate. In addition, the PMIC will solicit and when possible facilitate applications from qualified individuals or groups.

Procedure 4-5: The PMIC has the structure and support staff to participate in the distribution of all subcontracts between NIPMC as outlined in this RFA and currently has a fiscally accountable structure in place to pass funds granted by the NIPMC to other Penn State entities.

D. Evaluation Plan:

The primary method to evaluate the progress of the PMIC in meeting the objectives of this proposal will be by review of the program conducted by the advisory committee. As stated previously, the advisory committee will provide direction and prioritize the work of the PMIC regarding crop profiles and PMSP participation, development of educational materials and review proposed PA-NASS IPM/Pesticide Use Surveys. The committee also will evaluate the PMIC's ability to meet the priorities and to review crop profiles and educational materials developed by the PMIC.

The following are several specific measures that can be used to evaluate the progress toward meeting the objectives:

Objective 1 – To serve as primary source for all requests regarding use of IPM tactics and pest management practices in Pennsylvania.

Evaluation criteria:

- Timely processing and response to requests for information regarding IPM practices including pesticide use
- Availability of IPM practices and pesticide use data
- Level of involvement of the Principal Investigator (PI) - Dr. Kerry Richards with commodity groups, state and national regulatory programs, and other appropriate stakeholders

Objective 2 – Increase input from stakeholders through a functional advisory committee and develop ongoing interaction with IWGs.

Evaluation criteria:

- Conducting an advisory committee meeting and documentation of communication when need arises
- Availability of an electronic communication with advisory committee members and stakeholders
- Level of involvement by the PI and support of others who participate in IWG activities

Objective 3 – Maintain a Web site and other communication pathways with the Northeastern IPM Center (NIPMC) as well as other key agencies and commodity groups.

Evaluation Criteria:

- Review of the PMIC web site to determine compliance with the standards set by the Northeastern IPM Center
- Availability of current IPM data, including pesticide use surveys, regulatory decisions and other information necessary for pest management decision-making
- Evaluations of presentations give by the PI to increase the awareness of stakeholders regarding pest management practices, pesticide safety, regulatory decisions, or other pertinent IPM information
- Evaluations, by the advisory committee and other peer review, of educational materials developed
- Electronic feedback from those who view the site

Objective 4 – Acquire funding necessary to support data collection regarding IPM practices, including pesticide use surveys, and to provide support for qualified individuals or groups seeking and receiving funds.

Evaluation Criteria:

- Successful acquisition of funding
- Documentation of efforts to promote the availability of funding
- Documentation of support provided

Probable Duration:

In consistency with the duration described in Section II or the RFA, the probable duration of the SNP will be a minimum of 1 year. Upon the anticipated successful completion of that year, a detailed progress report and a proposal for further funding will be submitted.

Project time line

Meeting of Advisory Committee:	April 2007
Review of PA-NASS IPM Tactics/Pesticide Use Survey	April 2007
Review of IWGs priorities and their benefits to the state.....	Spring 2007
Educational materials available for advisory committee review	September 2007
Review of mail lists and membership of advisory committee.....	Ongoing
Attend relevant meetings and present information	Ongoing
Develop at least 3 newsletter articles and three educational materials.....	Ongoing
Review of FQPA and other regulatory decisions	Ongoing
Revise Web site to reflect new projects and databases	Ongoing as information becomes available
Respond to requests from regulatory decision makers regarding IPM practices or pesticide use.....	Ongoing
Disseminate of regulatory decisions and other pertinent information through electronic and other media	Ongoing
Interact with Northeastern IWGs.....	Ongoing on an as-needed basis
Provide detailed accounting reports regarding funding to others receiving support under this RFA.....	Monthly/on an as-needed basis

II. Cooperation and Institutional Units Involved with both programs for which funding has been requested

These institutional units each have a long history of cooperation with the PMIC and have expressed an interest in renewing their longstanding commitment to the program's success:

The Pennsylvania Department of Agriculture – This agency will continue to provide funding to support the activities of the program and work cooperatively to respond to regulatory requests for information, process Section 18 exemptions, and coordinate communication with PMIC stakeholders.

Penn State Department of Plant Pathology - Scientists in this department will assist in responding to requests for information to facilitate informed regulatory decision making and work cooperatively with the SNP to provide stakeholders with timely information regarding emerging pest management issues.

Penn State Department of Entomology - Scientists in this department will assist in responding to requests for information to facilitate informed regulatory decision making and work cooperatively with the SNP to provide stakeholders with timely information regarding emerging pest management issues.

Penn State Department of Horticulture - Scientists in this department will assist in responding to requests for information to facilitate informed regulatory decision making and work cooperatively with the SNP to provide stakeholders with timely information regarding emerging pest management issues.

Penn State Department of Crop and Soil Sciences - Scientists in this department will assist in responding to requests for information to facilitate informed regulatory decision making and work cooperatively with the SNP to provide stakeholders with timely information regarding emerging pest management issues.

The Pennsylvania Field Office of the National Agricultural Statistic Service - This office will continue to provide data collection and necessary statistics to answer regulatory inquiries regarding pesticide use, pest management practices, and economic impact data for Pennsylvania crops.

The Penn State Pesticide Education Program - This program will continue to provide support staff necessary for the efficient function of the PMIC, which includes but is not limited to staff to facilitate the distribution of subcontracts between the NIPMC and others as outlined in this RFA.

The Penn State Urban Pesticide Initiative - This program will aid in stakeholder outreach through instructor-led consumer information sessions and through technical assistance for creation of educational materials. The Urban Initiative Specialist will continue to take an active role and participate in the activities of the Northeastern IPM Center's Community IWG.

III. Key Personnel

Kerry Hoffman-Richards, PhD – Principal

Senior Research Associate

Affiliate Associate Professor, Department of Agriculture and Extension Education

The Pennsylvania State University

**Appendix C
Advisory Committee**

Name	Address
Emelie Swackhamer	Northampton County Coop Ext. Greystone Building Gracedale Complex Nazareth, PA 18064-9212
David Beyer	Department of Plant Pathology Mushroom technology 102 Buckhout Laboratory University Park, Pa 16802-4506
Amy Bradford	PennAg Industries Association Northwood Office Center 2215 Forest Hill Dr., Suite 39 Harrisburg, PA 17112
Dwight Lingenfelter	The Pennsylvania State University Crop and Soil Sciences 211 ASI Building University Park, PA 16802
Paul Craig	Capital Region Extension Educator 1451 Peters Mountain Road Dauphin, PA 17018
Tim Elkner	Lancaster Cooperative Extension 1383 Arcadia Road, Room 1 Lancaster, PA 17601-3184
Robert E. Leiby	Lehigh County Extension 4184 Dorney Park Road Allentown, PA 18104-5798
Alan H. Michael	Dauphin County Extension 1451 Peters Mountain Road Dauphin, PA 17018-9504
Dennis J. Murphy	The Pennsylvania State University Department of Agricultural and Biological Engineering 221 Ag Engineering Building University Park, PA 16802

Kevin Fry	Armstrong County Coop Ext. 124 Armsdale Road, Suite 112 Armsdale Administration Bldg Kittanning, PA 16201-3738
Eric Oesterling	Westmoreland County Extension RR12, Box 202E Donohoe Road Greensburg, PA 15601
Edwin G. Rajotte	The Pennsylvania State University Pennsylvania IPM Coordinator 501 ASI Building University Park, PA 16802
David M. Scott	PA Department of Agriculture Bureau of Plant Industry 2301 N. Cameron Street Harrisburg, PA 17110-9408
Steve Jacobs	Entomology 513 ASI Building University Park, PA 16802
Jack Watson (replacement to be determined)	The Pennsylvania State University 401 Ag Administration Building University Park, PA 16802