

**UNITED STATES DEPARTMENT OF AGRICULTURE  
COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE**

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Project Type E, State Network Projects (SNP): The New York State Information Network for Pesticides and Alternative Strategies will serve as the State Network Project (SNP) designed to gather and disseminate information on pesticides and pest management. The SNP will be administered and staffed by the Pesticide Management Education Program (PMEP) at Cornell University. PMEP will seek to enhance the level of knowledge, awareness, and understanding of local, state, regional, and national pest management practices for stakeholders and others by enhancing our existing website so that information can be accessed directly from the Northeastern IPM Center and associated sites; our listservs will provide immediate and timely information to our membership from these sites. The specific objectives of this state-networking project are to: 1) Disseminate regulatory information received from federal agencies (such as the EPA and the USDA’s Office of Pest Management Policy) regarding the use and application of pesticides, including IPM practices in New York State. 2) Provide a website and listserv with helpful, current information and associated links for pesticides and IPM-related practices. Information will include: SNP contact information; a roster of the PMEP advisory committee; a link to the home page of the Northeastern IPM Center, a link to the Northeastern state SNPs websites, a link to the New York State IPM site at Cornell University, and a link to the pest management guidelines specific to those commodities of New York and the Northeast; a link to pesticide applicator certification information; IPM pesticide-related priorities (identified by the advisory committee) and pertinent developments in IPM; a list of regulatory queries and responses; changes in federal/state pesticide regulations; a link to the national database of crop profiles and pest management strategic plans; updates on pest activity and out breaks; progress reports New York State and EPA registered pesticide product information, including label images; annual pesticide sales and use reporting information for New York State as reported by commercial applicators and registered businesses. 3) Distribute Northeastern IPM Center-related information, such as the release of RFAs, meeting dates, and regional IPM publications of importance in a timely fashion to all appropriate contacts. 4) Recruit an advisory committee to assist PMEP in prioritizing projects related to pesticide education, information outreach, and the development of extension and education publications focusing on integrating pesticides into IPM programs. 5) Create a new section on the PMEP website to educate stakeholders about the proper use of pesticides in the home and schools.

## 4. Project Description

### a. Problem, Background and Justification

The Pesticide Management Education Program (PMEP) at Cornell University has a long tradition of disseminating pesticide and integrated pest management information via many sources. The PMEP (formerly known as the Chemicals-Pesticides Program) was one of the first state pesticide coordinator offices to develop a pesticide applicator certification core manual and associated recertification category manuals. It has been active in presenting educational sessions to pesticide applicators within the state and throughout the Northeast. Also, the program has maintained an electronic pesticide information network in various application configurations (primarily text-based) since 1982; the first was on the System of Computer Aid to Management of Pests (SCAMP) system, the next version was on the Cornell Cooperative Extension Network (CENET) system, and the current one on a World Wide Web/Internet-based network (<http://pmep.cce.cornell.edu>).

The Pesticide Management Education Program (PMEP) proposes to develop a New York State Information Network for Pesticides and Alternative Strategies that will serve as the State Network Project (SNP) designed to gather and disseminate information on pesticides and pest management. The SNP will be administered and maintained by the PMEP at Cornell University. The SNP will enhance the information currently displayed on our existing website and promote greater dialogue and information dissemination between staff and targeted audiences. PMEP will seek to improve the level of knowledge, awareness, and understanding of local, state, regional, and national pesticide laws and regulations and IPM management practices for stakeholders throughout New York and the entire Northeast. PMEP is the primary source for pesticide information in New York and regularly networks with federal and state pesticide regulatory agencies and other agencies regarding use and application of pesticides. Specifically, PMEP provides on-site pesticide certification training, including IPM information and practices, throughout New York and distributes similar information via certification/recertification manuals that are utilized throughout the Northeast region.

Also, in recent years the PMEP program and other Cornell staff have been actively involved in improving the development and production of Pest Management Guidelines for the major groups of commodities produced within the state and the Northeast. This new system, which is based on a collection of digital content provides for a much higher level of author collaboration, stakeholder involvement, organization of information, and administrative review. This final collection of digital content can be easily used to generate products for print distribution or to be available electronically on the web.

#### Current PMEP Website Directories

i. The PMEP website provides a separate directory of external links (<http://pmep.cce.cornell.edu/links.html/>), to several important sites, including the Northeastern IPM Center (<http://northeastipm.org/>), IR-4 (<http://ir4.rutgers.edu/>), other state network projects in the Northeast, Pesticide Safety Education Centers in the Northeast (<http://nepsec.psu.edu/>) and the South (<http://ipm.ncsu.edu/srpsec/>), and other related sites. These links address regional

priorities and provide funding opportunities, regional and national meeting dates, locations and agenda, IPM publication announcements; this information is also communicated via the PMEP listserv described under section 4c, Approach and Procedures.

ii. Chemical Information (<http://pmep.cce.cornell.edu/profiles/index.html>): This directory contains pesticide active ingredient information, including Extoxnet pesticide information profiles and Material Safety Data Sheets, information from EPA sources and the Federal Register. Also included are pesticide product registration letters from the NYS Department of Environmental Conservation.

Pesticide active ingredient information is organized by type of pesticide within this directory.

iii. Pesticide Applicator Certification (<http://pmep.cce.cornell.edu/certification/index.html>): Resources are provided for those pesticide applicators requiring certification and those training applicators. This site contains a pesticide training course calendar (<http://pmep.cce.cornell.edu/calendar/>), approved 30-hour certification and re-certification training courses, and pesticide training resources (<http://pmep.cce.cornell.edu/facts-slides-self/index.html>) and manuals; included in the calendar are the dates, times, and re-certification categories with credits for each course.

iv. Pesticide Regulations, Registrations, and Reporting (<http://pmep.cce.cornell.edu/regulation/index.html>): This directory contains federal and New York State pesticide regulations, including the following:

-The NYS Pesticide Product, Ingredient, and Manufacturer System (PIMS) (<http://pmep.cce.cornell.edu/pims>), is a collection of databases for pesticides currently and/or formerly registered for use in New York State. They are searchable by EPA Registration Number, product/label name, active ingredient, and company/distributor. Label images of those labels registered with the NYS Department of Environmental Conservation are provided.

-The New York State Pesticide Sales and Use Reporting (PSUR) (<http://pmep.cce.cornell.edu/psur>) Database includes links to annual reports of pesticide sales and applications from 1997 to the present reporting year.

-A link is provided to the National State Pesticide Information Retrieval System (NSPIRS) for specialized data searches (sites and pests) for New York State pesticide products that are currently registered with the NYS Department of Environmental Conservation.

v. Pesticide Use Information for New York State (<http://pmep.cce.cornell.edu/piap/index.html>): This site contains crop profiles specific to New York State and links to other state profiles, including those contained on the USDA website hosted by North Carolina State University. Crop profiles are detailed documents describing the production of a specific commodity, including cultural practices, insect, disease, and weed pests, chemical and non-chemical controls, and alternatives to current controls.

vi. Program Staff (<http://pmep.cce.cornell.edu/staff.html>): Contact information is currently provided for the two groups comprising the Pesticide Management Education Program (Pesticide Safety Education and the Pesticide Sales and Use Reporting (PSUR) database group). The proposed Northeastern IPM Center-related information will have a dedicated directory on our website that will identify the appropriate SNP Coordinator and staff.

### **b (1) Objectives**

The specific objectives of this state-networking project are to:

1. Disseminate regulatory information received from federal agencies (such as the EPA and the USDA's Office of Pest Management Policy) regarding the use and application of pesticides, including IPM practices in New York State.

2. Provide a website and listserv with helpful, current information and associated links for pesticides and IPM-related practices. Information will include:

- SNP contact information
- a roster of the PMEP advisory committee
- a link to the home page of the Northeastern IPM Center, a link to the Northeastern state SNPs websites, a link to the New York State IPM site at Cornell University, and a link to the pest management guidelines specific to those commodities of New York and the Northeast
- a link to pesticide applicator certification information
- IPM pesticide-related priorities (identified by the advisory committee) and pertinent developments in IPM
- a list of regulatory queries and responses
- changes in federal/state pesticide regulations
- a link to the national database of crop profiles and pest management strategic plans
- updates on pest activity and out breaks
- progress reports
- New York State and EPA registered pesticide product information, including label images
- annual pesticide sales and use reporting information for New York State as reported by commercial applicators and registered businesses

3. Distribute Northeastern IPM Center-related information, such as the release of RFAs, meeting dates, and regional IPM publications of importance in a timely fashion to all appropriate contacts.

4. Recruit an advisory committee to assist PMEP in prioritizing projects related to pesticide education, information outreach, and the development of extension and education publications focusing on integrating pesticides into IPM programs.

5. Create a new section on the PMEP website to educate stakeholders about the proper use of pesticides in the home and schools.

### **b(2) Anticipated Impacts**

The overall impact of PMEP's website can be estimated by tracking the annual public's use of this facility. Based on the statistics maintained for our current website and individual directories, it appears that our website has become very popular, especially with pesticide oriented stakeholders; we now display weekly updates of those pesticide products currently registered in New York State, including label images. During 2005 there were 4,697,409 successful pages retrieved by users from our site.

The greatest tool that we currently have for assessing pesticide use and its potential impacts on the environment comes from the data generated via the New York State Pesticide Reporting Law. This law requires commercial pesticide applicators to report their annual usage of general-use and restricted-use pesticides. The law also requires businesses and retailers to report sales of restricted-use pesticides and general-use pesticides intended for agricultural purposes. The PMEP staff [Pesticide Sales and Use Reporting (PSUR) database team] has developed an application that manages the information and allows access to the processed data by the state lead agency -- the New York State Department of Environmental Conservation (NYSDEC). The PSUR group assists the NYSDEC in preparing an annual report of the data that is then sent to the state legislature and the governor's office; the report and non-confidential data are also available to the general public via the PMEP website. The data has been used by Cornell Researchers to study pesticide leaching and groundwater/surface water quality. In the future, it is likely that specific data from this extensive database will be more widely utilized by various research groups looking at the effects of pesticides on human health and the environment.

Another impact resulting from the data generated via the New York State Pesticide Reporting Law is the ability of the Department of Environmental Conservation to restrict the use of certain pesticides in the state to prevent undesirable effects on humans, wildlife, and the environment. This data is also utilized for the same purpose at the national level by federal agencies(USDA and EPA).

The PMEP advisory committee created by this grant will help foster communications between programs, organizations and commodity groups that are interested in pesticide laws, regulation, and information, since representatives from these entities will be represented on the committee. The committee will also provide input for pesticide safety education to help prioritize current and future activities to best suit stakeholders needs.

The obvious impact resulting from the formation of a SNP containing pesticide and IPM-related pesticide information on our website and listserv is that the information is current, accessible, and timely. Applicators can remain in compliance by knowing which pesticides are registered and those that have been suspended or cancelled. Also, access to current IPM guidelines will provide information for making better pest management decisions and the selection of appropriate pesticides. Alerting growers to emergency pest problems, pest outbreaks, and where to obtain access to state emergency exemptions and special local need labels is critical.

The enhancement of a system for web-based pest management guidelines that can be customized according to regional needs will immediately impact stakeholders throughout the Northeast. This enhanced system will improve the utilization of current pest management information by giving stakeholders access to digitally based decision trees, computer models of pest development that can be used to refine the timing and choice of IPM tactics. This IPM information can be integrated by linking pesticides listed in the guidelines with PMEP's database of pesticide information and labels. This will give growers electronic access to the most current label information that cannot be provided in printed guidelines. A major future goal of PMEP's Pest Management Guidelines Program is to enhance the capability for delivery of web-based pest management information that provides more flexibility and comprehensive interactive opportunities for stakeholders to make pest management decisions and obtain appropriate information about pesticides.

### **c. Approach and Procedures**

**Objective 1.** 1. Disseminate regulatory information received from federal agencies (such as the EPA and the USDA's Office of Pest Management Policy) regarding the use and application of pesticides, including IPM practices in New York State.

The PMEP ListManager (cce-pmep-l), often referred to as "listserv," provides pertinent regulatory, educational and IPM information primarily from the Federal Register, EPA's listserv, USDA (Office of Pest Management Policy), the New York State Department of Environmental Conservation, the Northeastern IPM Center, from university faculty and staff, and cooperative extension educators to those desiring such information. A directory (<http://pmep.cce.cornell.edu/maillist.html/>) on the PMEP website provides individuals, commodity organizations, stakeholders, the regulated community, and the public the opportunity to join the ListManager, free of charge, and allows them to ask questions about pesticide and IPM-related issues; at present there are over 600 subscribers. Much of the information from federal agencies is spawned by the EPA review of pesticide active ingredients, per the 1996 Food Quality Protection Act (FQPA), and changes in pesticide regulations. Information from New York State Agencies consists primarily of new product registrations, crisis/emergency exemptions, 2(ee) registrations, and changes in state pesticide regulations. Information relative to pest outbreaks (e.g. Asian soybean rust) is also provided as it is received from commodity specialists.

**Objective 2.** Provide a website and listserv with helpful, current information and associated links for pesticides and IPM-related practices.

Most of the information required for the SNP is already being displayed under various directories on our website (Sec. 4a, [Current PMEP Website Directories](#)) and through a listserv. However, to improve the link between PMEP and the Northeastern IPM Center, we will establish a formal directory (index) on the PMEP website for the Center that will satisfy the objectives described in section 4(b) of this grant.

**Objective 3.** Distribute Northeastern IPM Center-related information,

As already stated previously (4c, Objective 1), the PMEP ListManager (listserv) is our primary means of distributing timely information to our stakeholders and others interested in pesticides and IPM-related information. Northeastern IPM Center-related information will be distributed to all appropriate contacts. PMEP will establish a formal directory (index) for the Northeastern IPM Center on the existing PMEP website with current and legacy information available to those desiring such information.

A Pesticide Applicator ListManager, another listserv specific to pesticide applicator training information, is maintained by PMEP and is accessible to Cornell Cooperative Extension Educators who provide much of the pesticide certification and recertification training in New York State. Approximately 65 extension educators are recipients of messages via this mechanism.

**Objective 4.** Establishment of an advisory committee.

An advisory committee will be assembled that will assist PMEP in prioritizing projects related to pesticide education, information outreach, and the development of extension and educational publication; training programs and extension materials related to pesticide/IPM issues will also be developed. The committee will consist of a representative from the NE IPM Center, the NYSDEC, the NYS Farm Bureau, the NYS Department of Agricultural and Markets, members from grower organizations, consumer advocates and environmental groups, the NYS IPM program, Cornell Extension Educators, and other key groups. The committee will convene at least twice per year or when needed.

**Objective 5.** Establish a section on the PMEP website to educate stakeholders about safe and effective use of pesticides in community and school IPM programs.

School and community IPM education efforts focus on the prevention and management of pest problems. These strategies are designed to reduce pesticide use and decrease hazards to humans and the environment. However, in many cases pesticides cannot completely be eliminated from these settings. This new website directory will enhance the public's understanding of IPM's goal of protecting children and homeowners from the undesirable effects of pesticides. The following topics will be addressed in this directory: 1) Associated risks from pests in homes and schools, types of pesticides and advantages, disadvantages, and uses of different formulations; 2) Toxicity versus hazard; 3) How to read a pesticide label; 4) How to select the most effective pesticide with the least undesirable effects; and 5) Basic pesticide safety principles and regulations pertaining to pesticide users in communities and schools.

### Project Timetable

	Internal	External outreach
Phase one: 1 month	Redesign existing website to add new NE-IPM Center directory	Provide appropriate information via listservs
Phase two: 2 months	Code and build html links	Test website with select group; Provide appropriate information via listservs
Phase three: 3 months	Maintain/enhance NE-IPM Center directory	Release website to the public/stakeholders, etc.; Provide appropriate information via listservs
Phase four: 6 months	Maintain/enhance/update NE-IPM Center directory; Evaluate selected user feedback and selected user interaction	Develop and determine the usefulness and success of the new site; provide appropriate information via listservs/website

#### d. Evaluation

Evaluating the effectiveness of the proposed Northeastern IPM Center-related information can be measured and cataloged per our web-based statistical package. Statistics can be provided for each directory that include: number of requests, requests for pages, domain name types, browser summary, requests by day of week and by time of day. During 2005 there were 4,697,409 successful pages retrieved by users from our site.

Sales of publications, including certification manuals and pest management guidelines, produced and distributed by PMEP is another way to evaluate the effectiveness of our SNP. Our program has its own distribution center and can easily track orders and sales of individual publications.

Finally, an on-line survey can easily be produced to capture user input and determine if the information is serving the needs of our stakeholders and user community.

#### 5. Cooperation and Institutional Units Involved

**Pesticide Management Education Program:** Harvey Reissig, Director/Pesticide Coordinator; William Smith, Senior Extension Associate; and Ronald Gardner, Senior Extension Associate - will provide the overall leadership and coordination of the project. The Pesticide Management Education Program (PMEP) at Cornell University collaborates with other land-grant universities, including mid-Atlantic partners Delaware, Maryland, West Virginia, and New Jersey.

#### **New York State Department of Environmental Conservation, Bureau of Pesticides**

**Management:** - Provides state product registration data, label images, and pesticide certification information for inclusion on the PMEP website.

**The New York State Integrated Pest Management Program:** The New York State IPM Program develops sustainable ways to manage pests and helps people to use methods that minimize environmental, health, and economic risks. IPM Commodity coordinators will interact with PMEP personnel to assist them in developing web-based information to educate stakeholders on the proper choice and integration of pesticides into IPM programs.

**Northeastern IPM Center:** The Northeastern Integrated Pest Management Center fosters the development and adoption of IPM, a science-based approach to managing pests in ways that generate economic, environmental, and human health benefits. The Center works in partnership with stakeholders from agricultural, urban, and rural settings to identify and address regional priorities for research, education, and outreach. PMEP will work with the center to disseminate information more widely on its website.

**Mid-Atlantic SNP Partners** -- Delaware, Maryland, West Virginia, and New Jersey (NJinPAS):  
- Working in collaboration, the Mid-Atlantic SNP partners maximize regional resources and partners to develop and disseminate information.

**New England:** Jon Clements, Univ. of Mass. Extension; Daniel Cooley, Dept. Plant, Soil, Insect Sci, Univ. of Mass-will provide input and assist in revision of NY Tree Fruit IPM Website to customize the data to be appropriate for the Website for the New England Regional Tree Fruit IPM Guidelines.

New England Collaborators: Lorraine Berkett, Plant and Soil Science, Univ. of Vermont; Heather Faubert, Plant Science Dept, University of Rhode Island; Glen Koehler, Pest Management Office, University of Maine; Lorraine Los, Dept Plant Science, Univ. of Connecticut, Glenn Morin and Robin Spitko, New England Fruit Consultants, Massachusetts.- will interact and assist in modifying the NY website to be appropriate for the NE region. They will incorporate NE electronic information into individual University Guidelines websites throughout the region.