



*Northeastern*  
**IPM**  
Center



**W**ORKING IN PARTNERSHIPS TO FOSTER THE DEVELOPMENT AND ADOPTION OF INTEGRATED PEST MANAGEMENT (IPM), A SCIENCE-BASED APPROACH TO MANAGING PESTS IN WAYS THAT GENERATE ECONOMIC, ENVIRONMENTAL, AND HUMAN HEALTH BENEFITS

# WHAT IS THE 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. Formed in 2000 as the Northeastern Pest Management Center, we are part of a nationwide system established by the USDA to respond quickly to information needs in the public and private sectors. In September 2003, the Center was approved for a 45 percent annual funding increase, with support to total \$4.3 million over four years. With these expanded resources, we are building on past successes and strengthening our responsiveness to stakeholders' needs.

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Learn more about the  
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**NortheastIPM.org**

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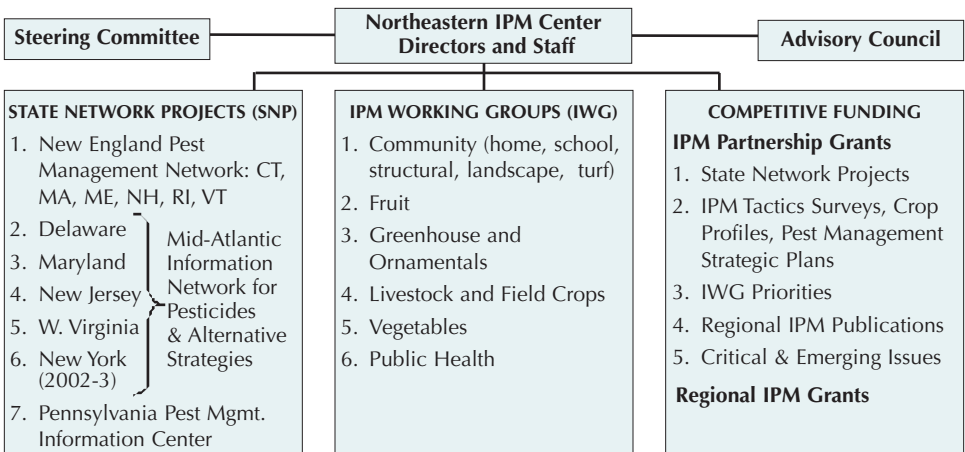
## WHAT DOES THE NORTHEASTERN IPM CENTER DO?

Our major purpose is to facilitate communication among key groups of people and to provide broad access to reliable pest management information.

- We **listen to people who need IPM information** so we can understand how to best serve their needs.
- We help to **identify problems and set priorities** for IPM research, outreach, and regulatory issues.
- We work to **find solutions** that address these priorities by funding promising research and extension efforts.
- We **promote sound IPM decisions** by organizing and disseminating reliable information.
- We **form partnerships and encourage collaboration** among IPM stakeholders, helping them to learn from each other and minimize duplication of effort.

## WHO DOES THE WORK?

The Northeastern IPM Center is jointly administered by The Pennsylvania State and Cornell Universities, with direction from each institution and help from staff specializing in information and communications. An Advisory Council (AC) provides vision and guidance to a core Steering Committee and to the staff. Much of the Center's work is carried out by State Network Projects (SNPs) and by IPM Working Groups (IWGs) organized around crop types and IPM settings. (Group leaders and AC members are listed on the back cover.) The Center also supports its goals through competitive grants programs, inviting participation by individuals and groups qualified to advance IPM solutions in the region.



# LISTENING TO PEOPLE WHO NEED IPM INFORMATION

The Northeastern IPM Center serves the needs of IPM users and others who care about how pests are managed in all the settings where they occur. These stakeholders include:

- growers, processors, agricultural consultants
- pest control professionals
- homeowners
- food retailers
- federal and state policymakers, agencies, regulators
- consumer and environmental groups
- educators and researchers.

We form and maintain dynamic relationships with and among these groups, seeking their guidance and listening carefully as they articulate their concerns and needs for IPM solutions.

Each of the Center's substructures has strong stakeholder representation and outreach components:

- The Advisory Council incorporates the diverse perspectives of stakeholders, with a membership that crosses institutional, disciplinary, programmatic, and geographical boundaries. Working collaboratively, the AC provides guidance on major Center efforts such as grants programs and website development.
- The IPM Working Groups provide a forum for pest management experts and other stakeholders to identify needs and concerns related to their specific IPM settings, which are then reflected in the priorities these groups set.
- The State Network Projects, led by project directors selected through a competitive process, provide crucial information links among state-based stakeholders, federal and state agencies, and groups that identify IPM priorities. The SNPs help to represent the full geographical and political diversity of the region.

## FACE-TO-FACE MEETINGS

Nothing beats the dynamic and robust communication that occurs in face-to-face meetings among individuals. Here are some examples of how the Center fosters and engages in this type of interaction:

- The AC meets annually to review progress and suggest future direction, exchanging ideas with the Center and with each other. In 2003, the group played a major role in crafting the Center's mission statement and launched plans for a regional IPM conference.
- Each IWG aims to meet once a year and maintains contact via email and conference calls.
- Each SNP has an advisory committee with broad representation that meets annually.
- Center directors and staff meet with leaders of the



*Northeastern IPM programs promote the practice and teaching of IPM in the region's schools. USDA photo by Ken Hammond*

*Growers are a key stakeholder group represented on the Center's Advisory Council.*





*The Center sponsored a workshop to produce a pest management strategic plan for cranberries. ARS photo by Keith Weller*



*Some supermarkets in the region have initiated IPM labeling practices. USDA photo by Ken Hammond*

- four regional IPM Centers and other national IPM leaders three times a year to share ideas and stay current with IPM policy and issues on a broad scale.
- Northeastern IPM Center representatives actively participate in workshops to develop crop profiles and pest management strategic plans.
  - The Center sponsors the participation of northeastern representatives in broader IPM dialogues, such as the multiregional workshop on soybean rust.

### **SURVEYS**

Surveys allow greater numbers of stakeholders to communicate to the Center, as well as to federal, state, and university decision makers, thus enhancing our understanding of the real-world practices and concerns of IPM users. For example:

- New England's SNP leadership collects feedback through its website (ProNewEngland.org), distilling this information into annual reports sent to regulators and educators.
- Pennsylvania's SNP has launched an assessment to evaluate the economics of growing genetically modified soybeans and has secured additional funding to conduct a homeowner pesticide survey.
- New Jersey's SNP leadership has developed a survey of IPM recognition and practice for the public. The Pennsylvania State University used this draft survey in compiling its own survey.

### **ONLINE EXCHANGE OF INFORMATION**

The Center's SNPs maintain stakeholder directories and host email lists for news and group discussion. Participants receive a wealth of information and can pose questions and exchange ideas, too. The Center's *On Target* online news briefs allow Center affiliates to share news with each other. Our newsletter, *Northeast IPM News* (published online and in print), regularly highlights the Center's IPM partners so they can explain their purpose and activities to stakeholders and peers in the region. All of these online information sources are accessible from the Center's home page, [NortheastIPM.org](http://NortheastIPM.org).



*Dairy farm in New York state. USDA photo by Keith Weller*

## IDENTIFYING PROBLEMS, SETTING PRIORITIES

Our stakeholders help us understand the challenges that regional IPM users face and identify gaps in the information that they need. Together we set research, education, and regulatory priorities. Federal and state decision makers consider these priorities, along with those set by other groups and institutions. By developing and sharing this type of information, the Center helps to ensure that resources are spent in ways that will solve the most pressing problems and have the greatest real-world impact.

### IPM WORKING GROUP PRIORITIES

The Center's working groups evaluate the status of current pest management practices and identify critical information needs. Their priority lists are developed systematically and maintained routinely, providing information that enables researchers and extension specialists to design projects that address important problems. These lists also help funding organizations and committees that seek guidance on what types of proposed projects will have the greatest impact. (View the lists at [NortheastIPM.org/regu\\_regional.cfm](http://NortheastIPM.org/regu_regional.cfm).)

### CROP PROFILES AND PEST MANAGEMENT STRATEGIC PLANS

Both IPM Working Groups and State Network Projects are playing a role in the development of crop profiles and pest management strategic plans (PMSPs). These important tools are essential in setting research, extension, and regulatory priorities. Compiled by commodity, crop profiles describe crop production and pest management practices, identifying critical pest management needs. These profiles are then used to develop PMSPs, which articulate research priorities to help funding institutions direct their resources toward projects that promise the greatest benefit.

The Center's SNPs have taken the lead in collaborative efforts to produce numerous commodity-specific crop profiles and PMSPs, and IWG members have contributed to these planning tools as well. The Center has sponsored and facilitated workshops for PMSP development, and in some cases has helped to fund broader PMSP collaborations (e.g., a regional sweet corn PMSP).

Shown below and at right are crop profiles and PMSPs completed in the region with leadership or participation by Center groups. Additional PMSPs are in progress for carrot (NJ), mushroom (PA and DE), and pear (New England). Visit our website ([NortheastIPM.org/rese\\_profiles.cfm](http://NortheastIPM.org/rese_profiles.cfm)) for a list of all crop profiles and PMSPs completed for the Northeast.

#### ***PMSPs for the Northeast***

Apple	New England
Apple	NJ PA WV VA
Cranberry	MA ME NJ OR WA WI
Lima Bean	DE MD NJ
Peach	New England
Peach	FL GA MI NC NJ PA SC
Spinach	DE, MD, NJ

#### ***Crop Profiles for the Northeast (since October 2002)***

<u>State(s)</u>	<u>Crop</u>	<u>Updated</u>	<u>State(s)</u>	<u>Crop</u>	<u>Updated</u>
Delaware	Apple	Oct. 2003	NJ, cont.	Cranberry	Dec. 2003
	Bean (Snap)	Jul. 2003		Eggplant	May 2004
	Green pepper	Aug. 2003		Peach	Oct. 2003
Maryland	Muskmelon	Jan. 2003	Pennsylvania	Spinach	Dec. 2003
	Potato	Oct. 2002		Squash	Feb. 2004
New England	Apple	Jul. 2003		Bean (Snap)	Apr. 2004
	Peach	May 2004	Christmas tree	Feb. 2004	
	Pear	May 2004	Rhode Island	Blueberry (Highbush)	Jul. 2003
New Jersey	Alfalfa	Dec. 2003	West Virginia	Apple	Jun. 2003
	Apple	Dec. 2002		Cattle (Beef)	Jan. 2003
	Asparagus	Jan. 2003		Corn (Field)	Apr. 2004
	Carrot	Feb. 2003		Potato	Jun. 2003
	Corn (Field)	Feb. 2003		Tomato	Feb. 2004
	Cranberry	Dec. 2003			

## FINDING AND FUNDING IPM SOLUTIONS



*The IPM Partnership Grants program funded Delaware's crop profile for soybeans in 2004. ARS photo by Scott Bauer*

The Northeastern IPM Center works to address IPM priorities in the region by outsourcing research and extension efforts. With the additional resources granted to the Center in September 2003, we launched a new competitive funding program called IPM Partnership Grants to foster the development of new knowledge and the dissemination of valuable IPM information.

### IPM PARTNERSHIP GRANTS

The IPM Partnership Grants are part of the Center's effort to serve as the region's focal point for team-building efforts, communication networks, and stakeholder participation in fostering the development and adoption of IPM. The program gives stakeholders an opportunity to influence decisions more fully by enabling them to win support for and lead efforts to address real-world IPM challenges. Funding opportunities are open to individuals and groups both within and outside of the land-grant system, including private individuals and institutions, businesses, commodity organizations, and governmental and nongovernmental organizations. Applicants are strongly encouraged to collaborate with other states, institutions, and organizations.

In March 2004, the IPM Partnership Grants program awarded more than \$550,000 to support 21 projects under five project types, including SNPs (see box at right).

### REGIONAL IPM GRANTS PROGRAM

In 2004, the Northeastern IPM Center assumed oversight of the Northeast Region IPM (RIPM) Competitive Grants Program. This program supports new research and extension efforts that hold the promise of improving or expanding our toolbox of IPM tactics. The priorities for this regional grants program are set by the IWGs, SNPs, and the Advisory Council, as well as by the Northeast Research, Extension, and Academic Program Committee for IPM (NEREAP-IPM). PMSPs are also used in identifying RIPM's funding priorities.

Ten RIPM projects were funded in 2004 with a total funding amount of \$583,000 (see box at right). For more information on current and past projects, visit [NortheastIPM.org/rese\\_reports.cfm](http://NortheastIPM.org/rese_reports.cfm).

### OTHER FUNDING EFFORTS

The Northeastern IPM Center has periodically granted extra support to IWGs in their efforts to identify priorities and create resource databases. For example, we supported the Vegetable IWG's effort to compile information on a wide array of IPM resources to be used in a database of resources and experts within the field. The IWGs may also seek funding from outside the Center to support special projects.



*The Regional IPM Grants Program has funded research to address the threat of varroa mites to honey bees. ARS photo by Scott Bauer*

## IPM PARTNERSHIP GRANTS AWARDED, FISCAL YEAR 2004\*

### ***IPM Tactics Surveys, Crop Profiles, and PMSPs***

Crop Profile for Soybean; PMSP for Pickles—S. Whitney-King (Univ. of Delaware)

Crop Profiles for Tomato, Kale, Sweet Potato, and Honey Bee; PMSP for Carrot—  
G. Hamilton (Rutgers Univ.)

IPM Tactics Surveys for School IPM and Sweet Corn; Crop Profile for Highbush Blue-  
berry; PMSPs for Bean, Pea, and Carrot—J. Dill and G. Koehler (Univ. of Maine)

Three New Crop Profiles and Two Revised Profiles—K. Richards (Penn. State Univ.)

Regional Sweet Corn PMSP—R. Hazzard (Univ. of Mass.)

Development of a Pest Profile for the Resurgence of Bed Bugs in the U.S.—

J. Gangloff-Kaufmann (Cornell Univ.) and C. Hollingsworth (Univ. of Mass.)

### ***IPM Working Group Priorities***

Regional Web-Based System to Communicate Real-Time Crop and Pest Forecasts for  
Apples, Vegetables, and Woody Ornamental Plants—J. Dill and G. Koehler (Univ.  
of Maine)

School IPM Leadership Training Program: Developing a Learning Community—  
L. Braband (Cornell Univ.)

### ***Regional Publications***

Pocket Pesticide Calibration Guide—J. Dorman and J. Dill (Univ. of Maine)

Regional Pest Alert on the Brown Marmorated Stinkbug, *Halyomorpha halys*—  
C. Holko (Maryland Dept. of Agriculture)

Developing the First Regional IPM Core Training Manual for Wildlife Control  
Operators in the Northeast—J. Shultz and P. Curtis (Cornell Univ.)

Field Guide to Tree Fruit Insect Pests, Beneficials, and Diseases of Eastern North  
America—A. Agnello (Cornell Univ.)

### ***Critical and Emerging Issues***

Monitoring Resistance to the Colorado Potato Beetle—G. Dively (Univ. of Maryland)

Multi-Tactic Management Strategies for Internal Lepidoptera Infesting Northeast  
Apples—W.H. Reissig (Cornell Univ.) and L. Hull (Penn. State Univ.) (also falls  
under the "IPM Working Group Priorities" project type)

Measurement of Worker/Scout Exposure to Pesticides in "Standard" and "Reduced  
Risk" IPM Systems for New England Apple—W. Coli and J. Clark (Univ. of Mass.)

\* *Six State Network Projects were also supported by the IPM Partnership Grants  
awarded in March 2004. See back cover for a listing of SNP leaders.*

## NORTHEAST REGIONAL IPM GRANTS AWARDED, FISCAL YEAR 2004

Verification of Web-Based, Real-Time, High-Resolution, Weed and Insect Predictive  
Models for Northeast IPM Programs—D. Calvin (Penn. State Univ.)

Promoting Apple IPM Implementation in Eastern New York Orchards by Expansion of  
the Northeast Weather Association System—J. Carroll (Cornell Univ.)

Revision, Expansion, and Maintenance of the Internet Center for Wildlife Damage  
Management—P. Curtis (Cornell Univ.)

Landscape Ecology and Management of Strawberry Sap Beetle in the Northeast—  
G. English-Loeb (Cornell Univ.)

Validation and Implementation of a Weather-Based Spray Advisory Model for White  
Rust of Spinach—K. Everts (Univ. of Maryland)

Reducing Pesticide Inputs in Nurseries Using a Portable Hot Water Immersion  
System—S. Gill (Univ. of Maryland)

IPM Displays for the Public—C. Koplinka-Loehr (Cornell Univ.)

Organic Acids as Alternative Controls and Resistance-Management Tools in Parasitic  
Honey Bee Mite IPM—M. Stanghellini (Rutgers Univ.)

Using MARYBLTY to Manage Economic Risks of Fire Blight—A. Biggs (West  
Virginia U.)

Assessment of Efficacy and Cost of Banker Plants for Aphid Control in Spring Flower  
Crops—R. Van Driesche (Univ. of Mass.)

# PROMOTING SOUND IPM DECISIONS

The Center promotes environmentally and economically sound decisions by organizing information and making it broadly accessible to all IPM decision makers.

## THE CENTER'S WEBSITE: NORTHEASTIPM.ORG

The Northeastern IPM Center is committed to providing reliable, research-based information to all IPM users in the region. To meet this goal, the Center renovated its website in 2004, making a wealth of new and existing information more readily available. The site's revamped appearance and usability better serve its audiences: IPM users, researchers, extension staff, regulators, and others. The original content and links give visitors access to vast resources that support pest management decisions.

Following are some of the features:

- Searchable database of IPM information resources
- IPM research and extension priorities
- State programs related to IPM



The Center's NortheastIPM.org home page has been redesigned to better serve all its audiences.

- Partner agencies and programs
- IPM Working Groups
- Crop profiles and PMSPs
- Comprehensive data on crops, pesticide use and usage, and registrations
- Reports and newsletters
- Funding opportunities
- Employment opportunities
- Alerts and advisories
- National and regional IPM sites

## DIRECTORIES OF RESOURCES AND EXPERTISE

The most powerful feature of the Northeastern IPM Center's website is a searchable database of information resources available through land-grant universities in the Northeast, Cooperative Extension, and government. This robust search tool allows users to find information with greater efficiency while customizing their search to yield results that meet their specific needs. Accessing the database through the NortheastIPM.org home page, users can do a simple word search or an "Advanced Search" by checking relevant categories, including Resource Type, Crop, State, Date, and Pest. They can also sort documents by electronic format (HTML or PDF) and find resources containing pest photos for identification. The types of resources included in the database are:

- Alerts and advisories
- Crop profiles, PMSPs
- Demonstrations
- Fact sheets
- Field guides
- IPM curricula
- IPM elements / protocols / guidelines
- News archives
- Newsletters
- Priority lists
- Programs / projects
- Resource indexes
- Videos

The 2005 Regional IPM Conference will include presentations on successes and innovations for IPM in turf settings.



## STATE NETWORK PROJECT WEBSITES

Each SNP supports its own website including news, IPM recommendations for specific crops, directories, communication tools, and updates on regulatory decisions. These sites are designed to improve access to information on pest management topics relevant to a specific state or subregion, allowing users to reach useful information with much less filtering of irrelevant material. The NortheastIPM.org website links to all SNP sites.

## NEWSLETTERS AND OTHER INFORMATION OUTLETS

Additional IPM news and tips are shared through electronic updates, printed newsletters and reports, and web-based newsletters. For example:

- *Northeast IPM News* is a full-color newsletter reporting on regional IPM research, programs, information sources, and Center-related news and events. It is distributed to more than 2,500 stakeholders.
- An online news brief called “On Target” reaches members of the SNPs, AC, and IWGs, as well as state IPM coordinators and other partners. These updates keep our affiliates apprised of state, regional, and national IPM news.
- New Jersey’s SNP has created numerous electronic mail lists, including nine that cover time-sensitive issues in the following IPM settings: vegetables, field and forage, fruit, turf/ ornamentals/greenhouse/nursery, interiors and institutions, schools, forests, Xmas trees, and mosquitoes.

## WORKSHOPS AND MEETINGS

The Center also promotes sound decisions through face-to-face education at meetings and workshops for growers and other IPM users. State network projects have been especially effective at this type of outreach. For example:

- New Jersey’s SNP has presented pesticide regulatory updates to the Central Jersey Turf and Ornamental Institute meeting, the Field Crop Grower Workshops, and the New Jersey Agribusiness Association.
- Pennsylvania’s SNP personnel have created presentations on pesticide regulation and application for distribution to extension agents.
- West Virginia’s SNP worked with the state’s Pest Control Operators Association to hold a conference on household pest management.

## ENHANCING AWARENESS OF CENTER RESOURCES

We strive to broaden recognition of the Center’s resources and contributions to IPM in the region. AC members promote the organization and its work to their own constituencies and beyond. We also present descriptive posters at conferences and meetings, with website and contact information. We periodically issue news releases to regional media to boost public awareness about the benefits of supporting IPM research and extension efforts.



*Apples are the most valuable and widely grown tree crop in the Northeast. Most states in the region have developed PMSPs for this crop. USDA photo by Doug Wilson*



*The Center’s newsletter reaches more than 2,500 IPM stakeholders in the region.*

## FORMING PARTNERSHIPS AND ENCOURAGING COLLABORATION



Visitors at Conley Park, an IPM teaching park in Ithaca, New York.  
Photo by Debra Marvin

As a regional entity with a multidisciplinary subject of concern, the Northeastern IPM Center appreciates the value of partnerships and collaborative efforts among diverse individuals and across organizations.

### REGIONAL IPM CONFERENCE

An important new component of the Center is a biennial regional conference for all those concerned with IPM in the region. The first of these events, the **Northeast Regional Community and Urban IPM Conference**, will be held March 15-16, 2005, in Manchester, New Hampshire. The focus on community and urban IPM topics will highlight the special importance of these concerns in the country's most densely populated region. The conference will engage IPM stakeholders in presentations, posters, exhibits, and dialogues on the following topics:

- Sound management practices in the urban forest and landscape settings
- IPM for structures such as homes, schools, and other buildings
- Successes and innovations for IPM in turf settings such as parks, athletic fields and golf courses
- IPM education and outreach in schools, in homes, and throughout communities using a variety of communication techniques
- Invasive species pressures in the urban environment
- Public health issues such as West Nile virus and other vector borne diseases
- Wildlife control methods within communities
- Innovative inclusion of agriculture in the urban environment.

The conference will facilitate assessment of the current state of IPM and will promote the assessment and prioritization of needs. Stakeholders sharing the common interest of IPM will have the opportunity to form new collaborations and invigorate existing cooperative efforts among individuals, programs, and agencies. The focus and scope of the conference has been determined with input from the Advisory Council, the Community IPM Working Group, and other Center affiliates.

### WORK WITH NEREAP-IPM

The Center maintains an important relationship with the Northeast Research, Extension and Academic Program Committee for IPM (NEREAP-IPM). With a focus on cooperative IPM programming in the region, NEREAP's members include state IPM coordinators and other regional figures such as representatives of EPA and the Sustainable Agriculture Research and Education (SARE) program. The Center depends on NEREAP-IPM for crucial research and outreach support of IPM programs that

Potatoes are worth about \$200 million in the region each year. Both Maryland and West Virginia have developed profiles for potatoes. USDA photo by Bob Nichols



benefit all stakeholders in the region. Individually, the IPM coordinators offer state-level focus and accountability for programmatic initiatives. As a group, NEREAP acts as a conduit for specialized expertise, technical capability, and historical perspectives that are unique to land-grant universities and essential to the success of the Center.

### COORDINATION WITH OTHER ORGANIZATIONS

One of the Northeastern IPM Center's greatest strengths is the partnerships we establish and maintain with other organizations that are concerned with IPM. We work closely with IPM groups throughout the Northeast, as well as with national policymakers and other regional IPM Centers.

The Advisory Council and IWGs provide a strong link to other organizations that offer diverse expertise and a sense of history (see box at right).

SNPs also maintain close ties with organizations in their states, such as state agriculture departments and governor's pesticide councils, regional groups such as Pesticide Safety Education Programs, and national organizations such as the Entomological Society.

We stay in close touch with Centers in other regions and national IPM policy makers through tri-annual meetings among leaders of the four regional IPM Centers, USDA IPM leadership, and other key IPM agencies.

Some of the groups represented on the Center's Advisory Council and IPM Working Groups are:

Animal and Plant Health Inspection Service (APHIS)

Natural Resource Conservation Service (NRCS)

Pesticide Safety Education Program (PSEP)

IR-4 Program (Interregional Research Project #4)

National Plant Diagnostic Network

Environmental Protection Agency (EPA)

Northeast Sustainable Agriculture, Research and Education (SARE)

Audubon International

American Farmland Trust

Pennsylvania Certified Organic

United Agri Products (UAP) Northeast

Wildlife Trust

Accokeek Foundation

USDA Agricultural Research Service (ARS)

State departments of agriculture

Northeastern land-grant universities

*Alfalfa crop in York County, Pennsylvania. USDA photo by Bob Nichols*



**ADVISORY COUNCIL MEMBERS (\*Steering Committee members)**

John Ayers*	Center Director; The Pennsylvania State University	PA
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John Butler	EPA Region III	PA
William Coli*	NEREAP-IPM rep.; University of Massachusetts	MA
Aubrey Davis	National Agricultural Statistics Service-New England	NH
James Dill*	SNP leader (NEPMNet), IPM Coordinator; Univ. of Maine	ME
Michael Fitzner	USDA—Coop. State Research, Education and Extension Svc.	DC
Barry Frantz	USDA—Natural Resource Conservation Service	PA
Lloyd Garcia	USDA—APHIS, Plant Protection and Quarantine	NC
David Haight	American Farmland Trust	NY
George Hamilton	SNP leader; NEREAP-IPM member; Rutgers Coop. Ext.	NJ
David Handley	Fruit IPM Working Group; Univ. of Maine	ME
Zane Helsel*	NE Extension Directors rep.; Rutgers Coop. Ext.	NJ
Lebelle Hicks	Maine Department of Agriculture	ME
Mike Hoffmann*	Co-Principal Investigator for the Center; Cornell University	NY
Carol Holko	Maryland Department of Agriculture	MD
George Hudler	Northeast Plant Diagnostic Center	NY
Paulette Johnson	Slippery Rock Univ., Center for Environmental Education	PA
Rob Koethe*	EPA Region I	MA
Tracy Leskey	USDA – Agricultural Research Service	WV
Edith Lurvey	IR-4 Program, Cornell University	NY
Fred Magdoff	NE Sustainable Agriculture, Research and Education	VT
Mary Kay Malinoski	Community IPM Working Group; Univ. of Maryland,	MD
Dyremple Marsh	Delaware State University	DE
Luke McConnell	Ag Consultant; McConnell Agronomics	MD
Audrey Moore	EPA Region II	NJ
Glenn Morin*	New England Fruit Consultants (NEFCON)	MA
Therese Murtagh*	USDA – Office of Pest Management Policy	DC
Kenneth Nicewicz	Grower (Nicewicz Farms); Mass. Fruit Growers Association	MA
Jane Nogaki	New Jersey Environmental Federation	NJ
Bill Pool	Wegmans Food Markets	NY
Iliana Rivas*	Environmental marketing consultant	MA
Robert Seem*	NE Regional Assoc. of State Ag. Experiment Station Directors (NERA) rep.; Cornell University	NY
Joellen Zeh	Audubon International	NY

**IPM WORKING GROUP LEADERS**

Community IPM	Mary Kay Malinoski, Univ. of Maryland Lynn Braband, Cornell Univ.
Fruit	Peter Shearer, Rutgers Univ. Dave Handley, Univ. of Maine
Greenhouse and Ornamentals	Margaret Skinner, Univ. of Vermont Paula Shrewsbury, Univ. of Maryland
Livestock and Field Crops	Dennis Calvin, Penn State Univ. Keith Waldron, Cornell Univ.
Public Health	Jody Gangloff-Kaufmann, Cornell Univ. Howard Ginsburg, Patuxent Wildlife Research Ctr.
Vegetables	Ruth Hazzard, Univ. of Mass. Iliana Rivas

**STATE NETWORK PROJECT LEADERS**

Whitney-King, S. (Univ. of Delaware)	Mid-Atlantic Information Network for Pesticides and Alternative Strategies, Delaware
Brown, A. (Univ. of Maryland)	Maryland Information Network for Pesticides and Alternative Strategies
Dill, J., and Koehler, G. (Univ. of Maine)	New England Pest Mgmt. Network
Hamilton, G. (Rutgers Univ.)	New Jersey Information Network for Pesticides and Alternative Strategies
Richards, K. (Pennsylvania State Univ.)	Pennsylvania Pest Mgmt. Information Network
Baniecki, J. (Univ. of West Virginia)	Mid-Atlantic Information Network for Pesticides and Alternative Strategies, West Virginia