

Northeast IPM News

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Partnership Grants Awarded, New IPM Efforts Underway

A fresh infusion of funding is helping IPM experts in the Northeast meet real-world IPM challenges. In March, the Northeastern IPM Center's new IPM Partnership Grants program awarded more than \$550,000 to support 21 projects that will focus on regional IPM priorities and extend the Center's information network. Each funded project falls into one of five project types: (1) State Network Projects, (2) IPM Tactics Surveys, Crop Profiles, and Pest Management Strategic Plans, (3) IPM Working Group Priorities, (4) Regional IPM Publications, and (5) Critical and Emerging Issues.

State Network Projects

Six State Network Projects (SNPs) provide information to IPM stakeholders and to key federal and state agencies. They apprise regulators about IPM tactics and serve as liaisons among government agencies, land-grant institutions, and the Center. The SNPs keep stakeholders informed via phone contact, e-mail lists, and websites that include news, IPM recommendations, directories, and updates on regulatory decisions (find links to these sites at <http://NortheastIPM.org>).

New England's Pest Management Network (NEPMNet) functions as one project that

includes all New England states, led by James Dill and Glen Koehler (Univ. of Maine). Pennsylvania's Pest Management Information Center is led by Penn State's Kerry Richards. And the four remaining SNPs, based at land-grant institutions in Delaware (led by Susan Whitney-King), Maryland (Amy Brown, Carol Holko, and Sandra Sardanelli), New Jersey (George Hamilton), and West Virginia (John Banieki), collaborate together as the Mid-Atlantic Information Network for Pesticides and Alternative Strategies.

Surveys, Crop Profiles, and Strategic Plans

Several project leaders are spearheading efforts to develop IPM tactics surveys, crop profiles, and pest management strategic plans (PMSPs) for specific crops or IPM settings. These tools are essential in setting regional research, extension, and regulatory priorities.

In Delaware, Susan Whitney-King will lead development of a *crop profile for soybeans* and a *PMSP for pickles*.

In New Jersey, George Hamilton will lead the creation

of *crop profiles for tomatoes, kale, sweet potatoes, and honey bees*, and leads development of a *PMSP for carrots*.

In New England, James Dill and Glen Koehler will oversee development of *surveys for school IPM and sweet corn*, a *crop profile for highbush blueberry*, and *PMSPs for beans, peas, and carrots*.



Among IPM Partnership projects funded this year is a monitoring effort designed to mitigate pesticide resistance in Colorado potato beetle populations. Photo by Scott Bauer, courtesy ARS.

Pennsylvania's Kerry Richards will oversee three new crop profiles and two revised profiles.

Ruth Hazzard (Univ. of Massachusetts) will lead the development of a region-wide *PMSP for sweet corn*.

Jody Gangloff-Kaufmann (Cornell Univ.) will develop a nationwide *IPM tactics survey for bedbugs*, which have become a significant pest in homes, rental units, hotels, and college dormitories.

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Now Online: Encyclopedia of Animal and Plant Pests

CAB International's "Compendia," an encyclopedia of animal and plant pests (diseases, insects, and others), are now available online at <http://www.ipm-centers.org/cabi/> and on CD-ROM. The compendia synthesize a wide range of scientific information that is useful for scientists and extension educators, particularly when called upon to provide fast and accurate information regarding newly emerging animal diseases and plant pests. The regularly updated compendia are comprised of peer reviewed and edited information from thousands of specialists throughout the world.

The Regional IPM Centers and the National Plant Diagnostic Network are making these compendia available to land-grant university faculty and staff, free of charge, with funding provided by the Cooperative State Research, Education, and Extension Service (CSREES). All others may subscribe to the publications for a fee after logging on to <http://www.cabi.org/compendia.asp>.

For more information, please contact: Bill Hoffman, CSREES Program Specialist (whoffman@csrees.usda.gov).

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IPM Working Group Priorities

Two projects will address priorities proposed by the Center's IPM Working Groups. The first, led by James Dill and Glen Koehler, will involve implementation of a *regional web-based system to communicate real-time crop and pest forecasts* for apples, vegetables, and woody ornamental plants.

The second project, led by Cornell's Lynn Braband, will create a *model school IPM program*. School buildings and grounds personnel in four school districts will be trained to guide IPM adoption in their schools, and the model will be replicated in New York state and later throughout the region.

Regional Publications

Four new IPM publications will be developed to address a range of regional information needs.

Jeffrey Dorman and James Dill (Univ. of Maine) will revise and reformat the *Pocket Pesticide Calibration Guide*, which for many years has helped northeastern pesticide applicators make accurate conversion calculations in the field. Dorman and Dill will remove outdated examples and reformat the guide for better accessibility.

Carol Holko (Maryland Dept. of Agriculture) will produce a *regional pest alert on the brown marmorated stinkbug*, a pest of soybeans and woody plants in Asia that has recently been discovered in several Maryland and Pennsylvania counties. Holko will raise awareness of the risks that the insect presents as both a nuisance and agricultural pest. The alert will also help experts identify research and regulatory priorities for this emerging pest.

Jill Shultz and Paul Curtis (Cornell Univ.) will lead development of a manual promoting *IPM solutions for nuisance wildlife control*. Most northeastern states lack training programs for wildlife control operators, despite the fact that the commercial pest control industry has responded to an increased public demand for wildlife control services. The new comprehensive training manual could serve as the core curriculum for regional wildlife control operators, providing a foundation for educational and regulatory programs while also enhancing professionalism within the industry.

Art Agnello (Cornell Univ.) will produce a comprehensive *field guide on arthropod species and diseases occurring in tree fruit* in the eastern United States. The guide, to be printed in a convenient pocket-size format, will help northeastern growers identify numerous insect pests, as well as diseases and beneficial species. The book will fill a need for a field identification guide pertinent to the variety of fruit crops likely to be found on modern commercial farms.

Critical and Emerging Issues

Three projects will address critical or emerging IPM issues, promoting timely responses that can lead to quicker, more effective solutions.

Galen Dively (Univ. of Maryland) will lead a project designed to *mitigate the growing resistance of Colorado potato beetle populations to imidacloprid*, a pesticide that has been used heavily to control the pest in recent years. Researchers will monitor the beetles to detect early stages of resistance in populations from Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Pennsylvania,



and Virginia. If results show a decrease in pest susceptibility (i.e., an increase in resistance) to imidacloprid and similar products, growers may be convinced to use different insecticides or other resistance management practices before field control fails. Dively's team will follow up with a survey to document the adoption of resistance management practices.

W. H. Reissig will lead a project designed to *offset a growing pest crisis in the apple industry*, where growers have recently suffered severe financial losses due to infestations by internal fruit feeding Lepidoptera. Reissig will evaluate multitactic management programs that integrate mating disruption with improved timing of IPM-compatible insecticides. He will also monitor the susceptibility of Lepidoptera populations to insecticides in outbreak areas. Reissig's team will encourage growers to adopt and implement management programs that are effective, sustainable, economically feasible, and compatible with existing orchard IPM programs.

William Coli and John Clark (Univ. of Massachusetts) will lead a project that *measures worker and scout exposure to pesticides* in "standard" and "reduced risk" IPM systems for apple production in New England. They will work to determine potential exposure to various pesticides. The project is part of an effort to develop, test, and analyze innovative, economically viable programs that use lower-risk pesticides in the context of an IPM strategy.

From the Directors

In addition to supporting IPM efforts within our region, the Northeastern IPM Center stays connected to IPM efforts in other regions and on a national level. In February, leaders of the four regional IPM Centers met with USDA IPM leadership in Raleigh, NC, to discuss matters of interest to the Centers and other key IPM agencies.

The meeting included presentations by representatives from the USDA, EPA, and other regions' IPM Centers that will help us to stay in touch with IPM policy and issues on a broader scale. For example, we learned that the executive budget for fiscal year 2005 proposes to restore funding lost due to a 10 percent cut to IPM and other programs in 2004. This proposed budget must go through the House and Senate before final funding is approved.

The meeting also included a discussion of plans to improve consistency among PMSPs. The national group will revise the guidelines and a checklist for creating PMSPs. We have started to develop software templates that will make this process easier and more consistent while also enhancing the usefulness and accessibility of the documents.

—John Ayers and Jim VanKirk
Co-Directors

New Website Design Puts IPM Resources within Easy Reach

The Northeastern IPM Center is committed to providing reliable, research-based information to all IPM users in the region. With this goal in mind, the Center has redesigned and renovated its website, <http://NortheastIPM.org>, making a wealth of new and existing information more readily available.

The site's appearance and usability have been revamped to better serve each of its audiences (see a snapshot of the new design, below). The top portion of the main menu bar is designed for IPM users (e.g., growers), with links to specific IPM settings and crops. The lower portion of this menu is tailored to the needs of researchers, Extension staff, and regulators. Many topics are interesting to both groups of visitors, so portions of the site (e.g., information resource database, regional priorities)

can be reached through a variety of paths and links, placed where each particular group would find it relevant.

The regional identity of the site has been given greater emphasis, as the newly designed version moves content from two former regional sites to one location at NortheastIPM.org.

The original content and links available at the site give visitors access to vast resources that support sound pest management decisions. Following are some of the highlights:

- **Searchable database of IPM information resources.** These resources are available through northeastern land-grant universities, Cooperative Extension, and government agencies; see article on page 4.
- **Searchable directory of IPM experts.** Visitors can link to this directory (housed at the

National Science Foundation's Center for IPM) to find experts nationwide and can add themselves to the list online.

- **IPM research and extension priorities.** These priority lists have been developed by various entities, including stakeholder working groups, commodity organizations, and groups formed to develop PMSPs.
- **State programs.** Links for each of the northeastern states provide a listing of all websites relevant to IPM in that state, including the official IPM program and State Network Project, with contact information for each.
- **Partner agencies and programs.** Visitors can link to websites of many other public and private organizations that support IPM and provide valuable information.

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The screenshot shows the homepage of the Northeastern IPM Center website. Callouts identify several key features:

- Menu for growers and other IPM users:** Points to the top navigation bar with categories like COMMUNITY, FRUIT, GREENHOUSE/ORNAMENTALS, LIVESTOCK/FIELD CROPS, PUBLIC HEALTH IPM, and VEGETABLE.
- Information resources database:** Points to the 'SEARCH' and 'ADVANCED SEARCH' buttons.
- Partner programs:** Points to the 'PARTNER PROGRAMS' link in the top right.
- Menu for researchers, Extension staff, and regulators:** Points to the bottom navigation bar with categories like HOME, ABOUT THIS CENTER, RESEARCH IN IPM, REGULATORY ISSUES, ACADEMIC COURSES, EXTENSION, and NEWS.
- Experts directory:** Points to the 'EXPERTS DIRECTORY' link in the bottom right.
- Regional priorities:** Points to the 'REGIONAL PRIORITIES' link in the bottom right.
- State programs:** Points to the 'STATE PROGRAMS' link in the bottom right.

The main content area includes a welcome message, news from the Northeast (announcing awards and RFPs), national news (IR-4 report and USDA data), and a featured image of a farm with the caption 'The Northeast Region Produced 9 Million Tons of Milk in 2003'.

New Website, continued

- **IPM Working Groups.** Information about each IPM Working Group is accessible under the menu “For IPM Users” at the top of the home page.
- **Crop profiles and pest management strategic plans.** Links allow users to easily access all completed profiles and plans, both in northeastern states and nationally.
- **Comprehensive crop data.** This information, as well as data on pesticide use and usage, pesticide registrations, and other regulatory information, can be found via the “Regulatory Issues” drop-down menu.
- **Reports and newsletters.** Users can find electronic versions of all the Center’s printed documents in either the html or pdf format.
- **Funding opportunities.** The “Research in IPM” and “News” drop-down menus lead users to information and announcements about granting agencies, funding programs, and reports on funded projects.
- **Employment opportunities.** Announcements about open positions related to IPM can be found on the “News” drop-down menu.
- **Alerts and Advisories.** Week-to-week pest reports for people in the field in each state can be found under the “News” menu.
- **National and Regional IPM Sites.** Links to the national IPM network and to IPM Centers in other regions are also available from the home page.

IPM Resource Database: Information at Your Fingertips

The most powerful feature of the Northeastern IPM Center’s new website is a searchable database of IPM 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.

The database is accessible through the NortheastIPM.org home page. Users can do a simple word search or, using the “Advanced Search” function, they can narrow their searches by checking relevant boxes under several categories: 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 and Pest Management Strategic Plans
- Demonstrations
- Fact Sheets
- Field Guides
- IPM Curricula
- IPM Elements / Protocols / Guidelines
- News Archives
- Newsletters
- Priority Lists
- Programs/Projects



- Resource Indexes
- Videos

If you know of a useful resource that is missing from our database, you’re invited to add the new information online, or you may contact us to add multiple items or help us correct mistaken records.

Northeast Regional IPM Conference

March 15-16, 2005

The Northeastern IPM Center’s first biennial conference, to be held in Manchester, NH, will focus on community and urban IPM topics. The event will engage IPM stakeholders from across the region for presentations, posters, and dialogues on topics such as:

- ☞ Invasive species
- ☞ School IPM
- ☞ Curriculum development and implementation
- ☞ Sustainable and ecological landscaping
- ☞ Regulatory aspects of IPM
- ☞ Indoor and structural IPM



Visit the conference web page at http://NortheastIPM.org/conference2005_index.cfm. Details about presenting at and registering to attend the conference will become available as planning continues. To get involved in organizing conference sessions, readers can contact Jim VanKirk (jrv1@cornell.edu) or Liz Thomas (egt3@cornell.edu).

Our IPM Partners: IR-4 Expands the IPM Toolbox for Specialty Crops

IPM users can choose from a wide array of tools to help manage pests effectively, economically, and with minimal risk to the environment and human health. Among these tools are reduced-risk chemicals and biologically based products. The IR-4 Project (Interregional Research Project #4) works to ensure that these types of pest management tools are available to growers who need them.

What Is the IR-4 Project?

The IR-4 Project is a unique partnership among researchers, producers, the crop protection industry, and federal agencies designed to increase pest management options for specialty crops. Formerly referred to as “minor crops,” specialty crops are those grown on 300,000 acres or less nationwide and include most vegetables, fruits, nuts, herbs, and nursery and flower crops.

IR-4 researchers and cooperators generate field and laboratory residue data that are submitted to the U.S. EPA for the purpose of securing regulatory clearances for pest management chemistries to be used on specialty crops. Specialty crops require extra attention because agricultural chemical companies tend to focus on registering products to serve large-acreage crops that offer the biggest markets. Although specialty crops are important, they could get left by the wayside in this scenario. IR-4's efforts prevent that from happening. Since 1963, IR-4 has contributed to over 7,300 clearances for specialty food crops, 10,600 ornamentals clearances, and over 300 biopesticides clearances.

Specialty crops account for more than \$40 billion in annual sales, or about 40 percent of total agricultural sales in the United States. Gross returns per acre for specialty crops run into the thousands of dollars compared to hundreds of dollars for large-acreage crops. Most northeastern states derive more than 60 percent of their agricultural crop sales from these high-value crops, with the region's specialty food crop value totaling \$3.9 billion (1997 Census of Agriculture).

IR-4's IPM Connection

Since passage of the Food Quality Protection Act (FQPA) of 1996, about 80 percent of all IR-4 research projects are concentrated on reduced-risk chemistries and biologically based products, which fit into IPM systems. This research has contributed to regulatory clearances for 2,462 label uses for vegetables, fruits, and turf/ornamentals, including some biopesticides. The reduced-risk approach lowers toxicity to birds, fish, wildlife, beneficial organisms, and human health, and it lowers the potential for groundwater contamination.

The Northeastern IPM Center and the IR-4 Project both work to serve the needs of IPM users, and the two organizations are exploring opportunities to complement each other's roles. The Center's priority-setting functions and pest management strategic plans can help enhance IR-4's awareness of northeastern stakeholder needs, and our outreach function can help to spread word of IR-4's activities to IPM users. IR-4's Northeast Region field coordi-

nator, Edith Lurvey, serves on the Center's Advisory Council and helps to make its members aware of IR-4 activities.

Growers Help IR-4 Get the Job Done

IR-4 encourages IPM users to become involved in identifying and solving problems, which will help to ensure that appropriate pest management tools are there when growers need them. Growers can take the following steps:

1. Identify the pest problem with local extension agent or researcher.



Most vegetables, fruits, nuts, herbs, and nursery and flower crops fall into the category of “specialty crops,” those grown on 300,000 acres or less nationwide. Photo by Bill Tarpenning, courtesy USDA.

2. Work with extension agents/researchers to identify a possible solution (e.g., if you have the problem, offer a corner of your field or greenhouse for an evaluation trial).

3. Submit a Project Clearance Request to IR-4 (or have the extension agent/researcher submit one) for research on the solution you've discovered.

Once a Project Clearance Request is submitted, the IR-4

process begins. IR-4 prioritizes projects based on requests from growers, commodity groups, and USDA/land-grant university researchers. IR-4 researchers obtain residue data and IR-4 study directors submit the data to the EPA for clearances. From this data, the EPA establishes a tolerance, determining the amount of chemical product that can be safely used on a particular specialty crop. The chemical manufacturer then can then add the crop to its label, where its use becomes available to specialty crop growers.

For more information or help submitting requests, contact your state IR-4 liaison, or contact Edith Lurvey by phone at 315-787-2308 or via e-mail at ell10@cornell.edu. Information is also available on the IR-4 website (<http://ir4.rutgers.edu>) and at <http://ict.cas.psu.edu/test/IR4/>.

Thanks to IR-4's Sherrilynn Novack for help in developing this article.

In the States

Fruit IPM Community Loses Two Leaders

Massachusetts

University of Massachusetts entomologist **Ronald Prokopy** died on May 14, 2004. Dr. Prokopy enjoyed international renown for his work in insect behavior and ecological control. His extension and research efforts focused on apple pests, especially the apple maggot fly. He invented the "red sticky trap" that captures the apple maggot fly without using harsh chemicals. Dr. Prokopy received numerous grants, awards, and honors, including the Distinguished Academic



Outreach Award in 1998. His industry research and contributions have been invaluable to growers, and the fruit industry as well as his many graduate students and colleagues at the University of Massachusetts will miss him dearly.

New Jersey

Rutgers University entomologist **Sridhar Polavarapu** died on May 7, 2004. Dr. Polavarapu's research focused on developing IPM strategies for blueberry and cranberry crops. He received many honors during his career, including the endowed Abraham Weisblatt Award from Cook College and the New Jersey Agricultural Extension Service

recognizing "across the board" excellence in teaching,



research, and outreach. Dr. Polavarapu was one of the most respected faculty members in his department, college, and the New Jersey agricultural community. His service to New Jersey and dedication to teaching and mentoring will be greatly missed.

Rhode Island

The University of Rhode Island's Cooperative Extension Program is collaborating with the Town of North Kingstown on the Healthy Landscapes



Program (<http://www.healthylandscapes.org>), a comprehensive education program aimed at pollution prevention best management practices in the home landscape. The project reaches out to various audiences, including residents, master gardeners, and professional landscapers. In February 2004, the program held a one-day training program for professionals, who were able to earn a "Healthy Landscapes Trained Practitioner" certificate and window sticker to help them market their valuable new knowledge. The program hopes to expand this link with the professional sector in the coming year.

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