

Award Category: Regional IPM Program

Nominee Name: Regional Integrated Pest Management Centers - North Central, Northeastern, Southern, and Western

Nominee Title:

Nominee Affiliation: North Central IPM Center, Northeastern IPM Center, Southern IPM Center, Western IPM Center

Nominee E-mail: c/o hbolton@nifa.usda.gov

Nominee Phone: c/o 202-401-4201

Nominator Name: Bolton, Herbert

Nominator Company: USDA, National Institute of Food and Agriculture

Nominator Title: National Program Leader

Nominator Phone: 202-401-4201

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Supporting Document: SUBMITTED

Vita:

Improving economic benefits related to IPM adoption: Checked

Reducing potential human health risks: Checked

Minimizing adverse environmental effects: Checked

Brief Summary of Nominee's or Program's Accomplishments (500 words or less):

Background

The Regional IPM Centers have demonstrated sustained national leadership and significant accomplishments in addressing priority regional IPM needs in agricultural, urban, and natural areas. The Regional IPM Centers – North Central, Northeastern, Southern, and Western - have effectively facilitated increased communication, coordination, and cooperation through a variety of programs to advance IPM among numerous regional and national stakeholders, organizations, and customers.

Examples of Regional IPM Center Program Accomplishments:

Grants Programs – The Centers funded regional grants on research and extension needs identified by work groups and stakeholders. Projects funded included information resources, work groups, communication networks, IPM tactics and systems, and educational programs. The Centers also supported the National Institute of Food and Agriculture in making Regional IPM Competitive Grants for each region.

Crop Profiles – The Centers facilitated completion of this series of technical publications describing IPM and crop production practices. Crop Profiles are used by the Environmental Protection Agency (EPA), USDA, and other regulatory agencies for tolerance reassessments of pesticide active ingredients.

Pest Management Strategic Plans – The Centers coordinated the completion of these commodity-based documents that identify and prioritize the research, education and regulatory needs of agricultural producers and others adjusting to changing economic and regulatory environments. These documents are used by industry, state and federal authorities like EPA, and USDA to understand pest management uses and needs in agricultural and other settings.

Work Groups – The Centers funded and facilitated these focused, multi-state work groups to address topics like pesticide resistance management, urban IPM, weather modeling and pest forecasting, emerging pests, and IPM in Schools. These work groups have been enormously successful in leveraging other funds. Several Working Groups leveraged large grants from the small funding provided by the Regional IPM Centers.

Pest Alerts – The Centers completed two-page overviews on the biology, identification and management of new and emerging pests. Pest Alerts are developed in cooperation with Land-Grant universities and

government agencies. The National Plant Diagnostic Network and the Animal and Plant Health Inspection Service have been key collaborators.

Coordinating Large Projects – The Centers demonstrated leadership in bringing together the needed stakeholders and partners for large projects such as IPM Training in Public Housing and support for the IPM Pest Information Platform for Extension and Education (IPM-PIPE).

Training Programs – The Centers delivered regional and national training programs on the management of invasive species and other IPM topics using distance education technologies and workshops.

Regional Workshops – The Centers funded workshops for planning, prioritization of needs, and exchange of information about recent developments in IPM on defined topic areas identified by Centers' advisory committees.

National and Regional Websites – The Centers established a national website, with four regional websites, and populated those sites with IPM content for all of the Centers' IPM program, organizational, educational, and other resources. The national website address is www.ipmcenters.org with links to each Regional Center website.

Training Programs and Educational Resources – The Centers developed or coordinated training programs, educational materials, training videos, fact sheets, IPM field guides, and other outreach resources to carry out Regional IPM Center programs.

Describe the goals of the program being nominated; why was the program conducted? What condition does this activity address? (250 words or less):

The overarching goals of the Regional IPM Centers are to improve the economic benefits of adopting IPM practices and to reduce the environmental and human health risks caused by pests or pest management practices.

The U.S. Department of Agriculture (USDA), National Institute of Agriculture (NIFA), has funded the Regional IPM Centers to advance:

- 1) The goals of the National Roadmap for IPM (2004) and
- 2) The National Institute of Food and Agriculture's priority area of Global Food Security by:
 - a. Establishing and maintaining IPM information networks.
 - b. Building IPM partnerships to address pest management challenges and opportunities.
 - c. Developing signature IPM programs and fostering their sustainability.
 - d. Evaluating the impact of IPM implementation.
 - e. Communicating positive IPM outcomes to key stakeholders.
 - f. Managing funding resources effectively.

The NIFA priority area for Global Food Security supports new science to boost U.S. agricultural production, improve global capacity to meet the growing food demand, and foster innovation in fighting hunger. The IPM Roadmap addresses pest management needs for production agriculture; natural resources and recreational environments; and urban residential and public areas.

The Regional IPM Centers have successfully addressed the national goals stated above by facilitating active collaboration across states, disciplines, and purposes. The Regional IPM Centers are functioning as strong focal points for regional pest management information networks, collaborative team building, and broad-based stakeholder participation.

Describe the level of integration across pests, systems and/or disciplines that was involved. (250 words or less):

The Regional IPM Centers have achieved an extremely high level of integration – not only across pests, systems, and disciplines – but also across stakeholders, costumers, Federal agencies, state agencies,

commodity groups, non-profit organizations, and underserved groups. The IPM Centers' promotion, facilitation, and implementation of IPM have been achieved by the commitment of the Centers' leadership and staffs to develop collaborations across states in their regions, disciplines, organizations, and systems. The Centers' programs require an integrated (research, education, and extension), multi-disciplinary, multi-organizational, approach to address priority pests in agriculture systems, pests that impact natural resources and recreational environments, and pests found in residential and urban settings.

The Centers have been highly successful as facilitators and focal points across disciplines for regional pest management information networks, collaborative team building, and broad-based stakeholder participation. This extensive integration extends over the range and scope of the Regional IPM Centers projects.

IPM Centers' inter-regional projects have required additional integration across regional boundaries. The Centers' inter-regional collaborations have resulted in more efficient use of resources and have taken advantage of the unique strengths and priorities of each Center and region.

Examples of IPM Center programs that have required inter-regional collaboration are the development of national Pest Management Strategic Plans, national Pest Alerts, Internet and database resources, evaluations of the impacts of IPM implementation on a regional and national scale, and support of the Pest Information Platform for Extension and Education (IPM-PIPE).

Describe the team building process; how did the program being nominated get partners involved? Education and awareness are essential in an IPM program. (250 words or less):

The Regional IPM Centers vigorously pursued team building by developing vital connections to IPM stakeholders (i.e., growers, commodity organizations, agricultural consultants, Land-Grant institutions, conservationists, the pest control industry, government agencies, and the public). These partnerships have allowed the Centers to: 1) effectively identify and respond to pest management issues of state, regional and national importance; 2) establish stakeholder-based priorities for addressing key issues; and 3) provide timely support, including funding, to stakeholders to achieve solutions through new and existing IPM technologies.

The IPM Centers initially pursued team building by establishing standing, broad-based Advisory and Steering Committees, with rotating membership, to provide vision and guidance and foster partnerships. Their members represent a wide range of stakeholders, and are important links to stakeholder group members, as well as being integral to regional IPM outreach by promoting awareness of Center programs and resources to stakeholder constituencies and beyond. Similarly, each Regional Steering Committee provides further communication and outreach to additional regional and national stakeholders.

The Regional IPM Centers have successfully incorporated strong team building into the processes for their programs such as Working Groups, Pest Management Strategic Plans, Crop Profiles, research and extension grants, and Pest Alerts. Each of these programs engages additional stakeholders in regional IPM needs identification and prioritization processes to focus pest management needs, challenges and opportunities in the region. Each IPM Center has organized and maintained multi-state information networks designed to provide pest managers, regulatory agencies, and policy makers with the information they need to make science-based decisions.

What outcome describes the greatest success of the program?:

The capstone outcome for the success of the Regional IPM Centers is NOT the success of any one program or any one Regional IPM Center. Rather, the Regional IPM Centers together have demonstrated the capacity and commitment necessary to dramatically increase multistate, regional, and

national collaborations on specific, stakeholder-identified priority IPM issues. Further, many issue-specific networks that have arisen from these Regional IPM Center-fostered collaborations have become self-sustaining as the networks significantly leveraged initial Regional IPM Center support through additional funding.

To obtain this capstone outcome, the Regional IPM Centers have genuinely engaged diverse stakeholders in the open, public process of setting priorities, obtaining funding, doing research, presenting education, implementing IPM programs, and evaluating results.

The Regional IPM Centers' direct support of regional and national collaborations for the IPM in Schools Pest Management Strategic Plan (PMSP) and IPM in Schools regional work groups are excellent examples. The PMSP was a Western Region priority, was funded by all four Centers, and helped spawn four regional IPM in Schools work groups. The work groups have leveraged more than \$350,000 dollars since their initial funding.

The Regional IPM Centers have functioned as the "glue" that binds the diverse stakeholders for these individual needs and priorities and that facilitates their regional and national coordination. Through these efforts the IPM Centers have enhanced national environmental stewardship and improved the economic benefits of adopting IPM practices, while reducing the environmental and human health risks caused by pests or pest management practices.

Provide evidence of change in knowledge, behavior or condition as a result of the program/individual. (250 words or less):

Examples:

The Centers developed numerous Pest Management Strategic Plans (PMSPs).

- The EPA used PSMP data to develop pesticide use standards required by the Food Quality Protection Act (FQPA) and in making regulatory decisions.
- USDA used this science-based information for program development.

When Asian Soybean Rust threatened U.S. soybean production in 2004, the Pest Information Platform for Extension and Education (IPM-PIPE) resulted from unprecedented collaboration among government, farm organizations, agricultural businesses and Land-Grant universities. The IPM Centers provided support to the IPM PIPE with education, outreach, communication, coordination and data management.

- Soybean farmers, co-ops and dealers accessed the Soybean IPM-PIPE website thousands of times for real-time pest information.
- USDA's Economic Research Service attributed savings to the IPM-PIPE during 2005 alone as high as \$299 million because growers of 98% of the crop avoided unnecessary fungicide applications.
- Farmers avoided up to 0.2 lb of fungicide per acre per season, approximating 74 million pounds of fungicide avoided since 2005 (\$1 billion+ in savings).

The Centers trained more than 475 people in underserved communities at 17 public housing authorities (PHA) and assisted PHA pilot sites encompassing about 5,000 units.

- Students demonstrated a change in IPM knowledge in pre- to post-training evaluations. Early, small investments (e.g., \$20K/yr) in Center Work Groups provided major leveraging of funds for IPM:

- The Brown Marmorated Stink Bug Work Group was able to organize and obtain a \$5.7 million integrated Specialty Crop Research Initiative grant involving 51 investigators, 13 institutions, and 10 states.

Who or what should receive the most credit for the success of this program? (250 words or less):

The current Regional IPM Centers are:

- North Central IPM Center, co-hosted at the University of Illinois and Michigan State University

- Northeastern IPM Center, hosted by Cornell University
- Southern IPM Center, hosted by North Carolina State University
- Western IPM Center, hosted by the University of California – Davis

The following staff members of the four Regional IPM Centers should receive the credit for the Regional IPM Program:

Northeastern IPM Center:

Carrie Koplinka-Loehr, Director, Cornell University
 John Ayers, Co-Director, Pennsylvania State University
 Kevin Judd, Web Administrator, Cornell University
 Mary Maley, Extension Support Specialist, Cornell University
 Elizabeth Myers, Communications Director, Cornell University
 Allison Taisey, Program Coordinator, Cornell University

North Central IPM Center:

Susan T. Ratcliffe, Director, University of Illinois
 Lynnae Jess, Co-Director, Michigan State University
 Larry Olsen, Co-Director, Michigan State University
 Michael Greifenkamp, Information Technology Specialist, University of Illinois
 Scott Martin, Communication Specialist, University of Illinois

Southern IPM Center:

James VanKirk, Director, North Carolina State University
 Stephen Toth, Associate Director, North Carolina State University
 Rosemary Hallberg, Communications Specialist, North Carolina State University
 Luz Davila, Bookkeeper, North Carolina State University

Western IPM Center:

Rick Melnicoe, Director, University of California, Davis
 Tom Holtzer, Co-Director, Colorado State University
 Linda Herbst, Associate Director, University of California, Davis
 Diane Clarke, Writer, University of California, Davis
 Jane Thomas, Comment Coordinator, Washington State University
 Cathy Tarutani, Comment Coordinator, University of Hawaii
 Al Fournier, Comment Coordinator, University of Arizona

If selected, suggested Citation for Award Certificate (40 words or less):

“For exemplary leadership and commitment in actively facilitating team work and dramatically increasing multistate, regional, and national collaborations on stakeholder-identified IPM priorities in agricultural, urban and natural areas.”