

Regional IPM

CENTERS

Regional Integrated Pest Management Centers Work for U.S.

Integrated Pest Management (IPM) has provided decades of reducing pesticide usage and risk to humans and the environment. The IPM Centers focus on the integration of research and Extension programs at the Land-Grant institutions to provide pest management knowledge to our stakeholders, U.S. residents, through state-based Extension programming. The importance of IPM has been recognized at the presidential level since 1972.

The creation of the competitively funded Regional IPM Centers in 1999 fulfilled the mandate of the Food Quality Protection Act legislation and the continuation of this program is required under the 1996 Act. The Centers are the link between the EPA and USDA to meet the mandates of the Food Quality Protection Act through regional and national efforts that enhance IPM research and adoption by working with other programs and agencies including:

- Environmental Protection Agency – regulates and sets toxicity tolerances for all pesticides in the U.S.
- State-based IPM Program – national network of IPM Coordinators
- Pesticide Safety Education Program – certified over 5.6 million applicators (2002-2006)
- Master Gardener Program – approximately 95,000 program participants
- National Plant Diagnostic Network – plant clinics in all U.S. states and territories
- IR-4 Minor Use Program – established 219 permanent pesticide tolerances in 2009
- Risk Management Agency – 1.17 million crop insurance policies in 2009
- Animal and Plant Health Inspection Service – monitors hundreds of invasive species world-wide
- Natural Resources Conservation Service – over 12 million acres in Conservation Stewardship Program
- Sustainable Agriculture Research and Extension Program – provided funding for 3,700 projects
- Agricultural Research Service – 100 locations with 1,200 active research projects
- Land-Grant Systems for the 1862, 1980 and 1994 institutions – over 100 colleges and universities

The Regional IPM Centers serve as the “glue” that binds the IPM elements of these programs and provides the regional and national coordination to protect our nation from the risks associated with pests and pesticides, as well as maintain the national network to respond rapidly to evolving pest management crises. Through these efforts the IPM Centers enhance environmental stewardship and economic well being for the U.S. states and territories.

The four Regional IPM Centers are:

- North Central IPM Center, co-hosted at the University of Illinois and Michigan State University
- Northeastern IPM Center, co-hosted by The Pennsylvania State University and Cornell University
- Southern IPM Center, hosted by North Carolina State University
- Western IPM Center, hosted by University of California - Davis

The Regional IPM Centers have developed and continue to maintain vital connections to IPM stakeholders (i.e., growers, commodity organizations, agricultural consultants, Land-Grant institutions, conservationists, the pest control industry, etc.) in their respective regions of the country. These partnerships allow 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.

Competitively Funded Regional IPM Centers. Small Investment, Big Impacts

Through an annual investment of \$4.096 million by the United States Department of Agriculture, the competitively funded Regional IPM Centers form partnerships that address the real-world needs of our stakeholders. Highlighted below are just a few examples of the Regional IPM Centers' impact on IPM that would not have occurred without their assistance. The regional approach allows the Centers to create partnerships that open the lines of communication among federal and state agencies, Land-Grant institutions, nonprofits, private industry, and urban and rural residents to make the most of our valuable public resources.

Preventing Children's Exposure to Pesticides in School

Pest management practices in our nation's schools often lead to unmanaged pest infestations, unsafe and illegal use of pesticides, and unnecessary pesticide exposure that result in increased asthma in our children and increased absences. Pesticides have been shown to both cause asthma and trigger asthma attacks. In response to these risks and the need to protect 53 million school-children from pesticide exposure, the Regional IPM Centers led a large collaborative effort involving the Regional IPM Centers, U.S. EPA, the IPM Institute, Land-Grant institutions, school district personnel, and private companies to develop the first national Pest Management Strategic Plan (PMSP) for IPM in Schools. This broad partnership catalyzed formation of one national and four regional School IPM Work Groups working together with the common goal to implement IPM in all schools by 2015.



Reducing Health Risks in Public Housing

The Regional IPM Centers are coordinating "IPM Training in Public Housing," a national project to reduce pest-related risks that can trigger asthma. This collaborative effort between the Regional IPM Centers, U.S. Department of Housing and Urban Development's Healthy Homes Initiative, the Environmental Protection Agency, Land-Grant institutions, and public housing personnel and residents is implementing IPM to reduce human health risks. There are 1.2 million public housing units in the U.S. This project addresses many urban pest issues including bed bug infestations that are increasing at an alarming rate across the U.S. Partnering with the public housing personnel and residents will allow this sustainable approach to have long-term impacts in reducing asthma and other human health problems resulting from pest infestations.

Protecting Crops, the Environment and Profits

The Integrated Pest Management Pest Information Platform for Extension and Education (ipmPIPE) informs growers about seasonal development and spread of Asian soybean rust, a devastating disease of legumes. The Regional IPM Centers manage this program that has allowed soybean growers to save a conservative estimate of \$1 billion or more since 2005. Most of the savings derive from the ability by growers of 98% of the crop to avoid unnecessary fungicide applications. USDA's Economic Research Service estimated farmers avoided as much as 0.2 lb of fungicide per acre per season, which works out to about 74 million pounds of fungicide avoided since 2005. Soybean growers in Gulf Coast states, where the disease is more prevalent, use the program to properly choose fungicides and time applications to protect their crop. In a similar program, pecan growers estimated gains of \$268/acre from the ipmPIPE Pecan system representing a potential benefit of \$77 million for the 288,000 acres in participating states. Another ipmPIPE component for vine crops (cucumber, pumpkin, melons, etc.) saved many participants 2-3 fungicide sprays in 2009.

Sharing Knowledge to Increase IPM Adoption

The Regional IPM Centers are collaborating with the EPA Tribal Pesticide Program Council (TPPC), USDA Tribal Education Equity and Extension Programs, 1994 and 1862 Land-Grant institutions, First American Land-Grant College and Organization Network (FALCON), American Indian Higher Education Consortium and First Nations to increase IPM practices and reduce pesticide usage and risk on reservations. The development of culturally sensitive IPM curricula and training modules allows for greater acceptance and implementation of IPM practices on the 56 million acres of tribal land. The program focuses on developing relationships at the state, regional and national levels to share knowledge of existing practices and foster adoption of these practices by other First Nations.



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February 2010

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