Facilitating registration of sustainable pest management technology for specialty crops and minor uses.

A Proven Program with Proven Results

Since it was established, IR-4 research has supported more than 24,000 food and ornamental horticulture use registrations. According to the Center for Economic Analysis at Michigan State University, “the IR-4 Project is anticipated to support research and industry sales sufficient to support 104,650 U.S. jobs and bumps annual gross domestic product by more than $7.2 billion.”

IR-4 research activities are predominantly funded through annual Congressional Appropriations ($11.916 million USDA-NIFA, $4 million USDA-ARS). Conducting this research is becoming more and more costly due to inflation and the complexity of analyzing new reduced and lower risk chemistries. It is also becoming more challenging and costly for IR-4 to meet EPA data requirements. For IR-4 to maintain its current level of high productivity, funding needs to increase. There is no other program or organization doing this work. If IR-4 doesn’t do it, no one else will.

Specialty crop growers believe that without adequate funding to support IR-4’s research on safe, effective pest management solutions, our domestic harvests are in jeopardy… which means more imports and higher prices at the grocery store.

Please Help IR-4 Continue to Assist Specialty Crop Growers by:

- letting IR-4 know your pest management needs
- participating in IR-4 sponsored research
- supporting adequate funding at all levels (industry, university, and government)

To learn more about IR-4 visit ir4.rutgers.edu.
The IR-4 Project is a cooperative effort charged with assisting specialty crop growers in solving pest management problems. Specialty crop growers are faced with multiple pest management challenges as they grow Pennsylvania’s multi-million dollar harvest of fruits, and vegetables along with a bevy of ornamental horticulture crops from greenhouse and nursery plants to Christmas trees. The unique nature of Pennsylvania’s intensive specialty crop production necessitates the development of important new pest management products. IR-4’s mission is to address the needs of high value low acreage crop growers that are not otherwise addressed. About 80% of IR-4 research projects are conducted on reduced-risk chemistries and biopesticides that fit well into Integrated Pest Management (IPM) systems.

Who Benefits From IR-4 Activities?
Pennsylvania growers benefit by having effective pest management tools that enable them to produce a plentiful supply of high quality food and ornamental horticulture crops. This in turn benefits the general public, food processors and other related industries which are provided with a safe, high quality, economical supply of food and horticulture crops.

Working in Cooperation
IR-4 works in cooperation with Pennsylvania State University, the State Agricultural Experiment Stations, and Land Grant Universities, USDA-National Institute of Food and Agriculture (NIFA), USDA-Agricultural Research Service (ARS), USDA-Foreign Agricultural Service (FAS), US EPA, and other regulatory agencies, growers and commodity organizations, and the crop protection industry.

How IR-4 Helps Growers
When a pest is discovered or new pesticide use is needed on a specialty crop, growers, extension agents and researchers are encouraged to submit a project request to IR-4.

Once Needs are Identified
• Industry is consulted for project support
• Projects are prioritized
• Research is conducted

IR-4 Generates Data for...

Food Use
• Residue data from research trials are compiled and submitted to the EPA for review and establishment of pesticide tolerances
• The manufacturer adds the use to the label

Ornamental Horticulture
• Efficacy and crop safety data are compiled into research summaries which are sent to manufacturers
• Manufacturers review summaries and incorporate into technical literature and product labels

IR-4 Helps Food Crop Growers
Pennsylvania fruit and vegetable growers annually produce about $788 million worth of crops for US and international markets (2007 USDA-NASS Census of Agriculture). Healthy crops are critically important to specialty crop growers. IR-4 has responded to hundreds of requests from Pennsylvania for registration of pest management products on food crops. By developing required data, thousands of new product uses have been registered that support Pennsylvania growers.

IR-4 Helps Ornamental Horticulture Growers
with chrysanthemums, poinsettias, flowering potted plants, pine, spruce, liners and young plants, Christmas trees, hosta, annual garden flowers, dogwood, honeylocust, maples and oak.

IR-4 researchers in Pennsylvania have worked with these and other crops grown by Pennsylvania growers, who produce $333 million (2007 USDA-NASS Census of Agriculture) in annual ornamental horticulture sales.

The IR-4 Biopesticide and Organic Support Program Helps Pennsylvania Growers By providing resources that promote the use of biopesticides along with traditional IPM. The IR-4 Biopesticide and Organic Support Program was expanded recently to include the development of new tools for organic growers.

IR-4 Public Health Pesticides Program (PHP)
Initiated in 2009, the IR-4 PHP program is a partnership of USDA-ARS, the US Department of Defense and IR-4. It was created to facilitate development and registration of toxicants, repellents and attractants to manage public health pests such as mosquitoes, ticks, sand flies and to protect military personnel from arthropod borne diseases.

“PA mushroom growers, who produce 63% of the $800 million U.S. mushroom crop, heavily rely on the expertise of IR-4 to coordinate pest management solutions with chemical registrants, regulatory agencies and the grower community. For both sudden disease issues and long range planning, IR-4 has always provided sound advice and support.”
—Laura Phelps, President, American Mushroom Institute