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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)

2013 Funding

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>USDA-NIFA,</td>
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<tr>
<td>USDA-ARS,</td>
<td>3,570,000</td>
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<tr>
<td>USDA-FAS &amp; Global Efforts</td>
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<td>USDA-APHIS, Invasive Species</td>
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<td>Hatch Grant</td>
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<td>DoD</td>
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<tr>
<td>Industry</td>
<td>1,400,000</td>
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<tr>
<td>In-Kind Support</td>
<td>18,000,000*</td>
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</tbody>
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In-Kind Support, includes Land Grant Universities and/or State Agricultural Experiment Stations, Crop Protection Industry, Regulatory Agencies (EPA-PRIA Fees, CA-DPR) and Agriculture and Ag-Food Canada

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 North Dakota’s multi-million dollar harvest of fruits, and vegetables along with a bevy of ornamental horticulture crops from greenhouse and nursery plants to trees. The unique nature of North Dakota’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?
North Dakota 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 North Dakota 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

Outcome:
Healthier crops are produced and crop protection issues are resolved.

IR-4 Helps Food Crop Growers
North Dakota fruit and vegetable growers annually produce about $163 million worth of crops for US and international markets (2007 USDA-NASS Census of Agriculture). Healthy crops are critically important to these growers. IR-4 has responded to hundreds of requests from North Dakota for registration of pest management products on food crops. By developing required data, thousands of new product uses have been registered that support North Dakota growers.

IR-4 Helps Ornamental Horticulture Growers
with perennials, annuals, trees & shrubs, and a landscape plants and grasses.

IR-4 researchers in North Dakota have worked with these and many other crops grown by North Dakota growers, who produce $5 million (2007 USDA-NASS Census of Agriculture) in annual ornamental horticulture sales.

The IR-4 Biopesticide and Organic Support Program Helps North Dakota 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.

"Without IR-4, the North Central Region would be lacking in fresh fruits and vegetables and ornamental crops. IR-4 research has brought valuable pest control tools to growers in our region. This makes it possible for growers to bring safe, diverse and reasonably priced plants and produce to homes throughout the North Central Region and the U.S."

– Bruce Buurma  President, Buurma Farms