



## IR-4 Funding Needs Breakdown – Plans for \$10,000,000

PRIORITY	ITEM	FOOD PROGRAM	ENVIRONMENTAL HORTICULTURE PROGRAM	BIOPESTICIDES AND EMERGING TECHNOLOGIES
1	Expansion of Product Performance Research and Integrated Solutions research - <b>\$4,500,000</b>	\$1,500,000	\$1,500,000	\$1,500,000
2	Loss of ARS Umbrella Funds & reduction of NRSP-4 funds - <b>\$250,000</b>	\$150,000	\$100,000	
3	Expansion of the number of residue studies <b>\$2,000,000</b>	\$2,000,000		
4	Expansion of Regulatory Support for Biopesticide and Emerging Technologies <b>\$1,500,000</b>			\$1,500,000
5	Equipment/Infrastructure <b>\$1,750,000</b>	\$1,250,000	\$500,000	
All		\$4,900,000	\$2,100,000	\$3,000,000

### **Priority 1 – Expansion of Product Performance and Integrated Solutions research to identify solutions for specialty crop growers pest management needs - \$4,500,000**

Over the past decade, the demands of the IR-4 Project to develop product efficacy and crop safety data to gain approval to perform residue studies and/or seek registration have skyrocketed in all IR-4 Programs and Platforms areas. Almost 80% of IR-4 residue studies on food crops now have a required product performance component that must be fulfilled before registration. In the Environmental Horticulture Program, funding for specific treatments in research has remained level for 8 years and it well below reasonable levels. Before 2018, there was dedicated funding for efficacy and crop safety research with biopesticides and emerging technologies products. These funds were diverted and redirected to establish the Integrated Solutions Platform. There remains a need for an independent group, such as IR-4 to perform efficacy and crop safety testing with biopesticides/biotechnology.

#### Plans

- Food Program (\$1,500,000)
  - Approx. \$350,000 will be used to address the current backlog of product performance testing associated with ongoing residue studies
  - Approx. \$350,000 will be used to perform 10 product performance research projects to develop data to show if a proposed crop protection product is safe and effective. If safe and effective, IR-4 will start efforts to develop residue data necessary for registration.
  - Approx. \$800,000 will be used to perform eight Integrated Solutions projects.
- Environmental Horticulture Program (\$1,500,000)
  - Approx. \$450,000 will be used to increase general field trial funding from approx. \$15,000 to \$25,000 per field trial

- Approx. \$1,050,000 will be used to fund 42 new field trials.
- Biopesticide and Emerging Technologies (\$1,500,000)
  - IR-4 to reestablish dedicated funds for biopesticide product screening. It is anticipated that IR-4 fund 25 projects/75 field trials

### **Priority 2 – Loss of ARS Umbrella Funds and reduction of NRSP-4 funds - \$250,000**

In FY 2024, IR-4 was informed by USDA-Agriculture Research Service's (ARS) National Program Staff that the ARS Administrator was redirecting funds appropriated by Congress to ARS for a cooperative agreement with IR-4 to another priority. The funds utilized in the cooperative agreement supported the US Environmental Protection Agency (EPA) required Quality Assurance assessment of ARS field research sites. IR-4 cannot submit the data developed at these sites to EPA unless the Quality Assurance assessment is performed. The cooperative agreement also supported chemical and bio-based pesticide product performance research work on non-food, ornamental crops at the University of Maryland Eastern Shore in Queen Anne, Maryland.

Additionally, IR-4 was informed that State Agricultural Experimental Stations (SAES) were planning to reduce their direct fund contribution to IR-4. The SAES provides direct funds to IR-4 via a National Research Support Program grant to perform national coordination, manage publically available databases and provide outreach. The NRSP-4 grant is being reduced from \$481,182 to \$409,050.

The \$250,000 associated with this priority will restore the lost funding and allow IR-4 to return to status quo operations.

#### **Plans**

- Food Program (\$150,000)
  - Approx. \$100,000 will be used by IR-4's Quality Assurance Team perform inspections and/or audits of ARS field sites and associated data.
  - Approx (\$50,000) will be used to assist with the coordination of IR-4's national research program and manage publically available databases.
- Environmental Horticulture Program (\$100,000)
  - Approx. \$75,000 will be used to perform testing of crop protection products on ornamental crops at the University of Maryland Eastern Shore.
  - Approx. \$25,000 will be used to assist with the coordination of IR-4's national research program and manage publically available databases.

### **Priority 3 – Additional residue studies - \$2,000,000**

IR-4 efforts have traditionally focused on performing residue studies to provide data to the EPA that allowed them to perform a dietary risk assessment. The EPA establishes a pesticide tolerance and registration if residues are in the acceptable range. This allows growers to use the products to control pests in their crops.

These studies are expensive, costing approximately \$250,000 apiece when factoring in the cost of performing the field trials, residue analysis, quality assurance assessment, and research management.

It is estimated that a \$2,000,000 increase will allow IR-4 to establish 8 new studies to answer critical pest management voids. These 8 studies, utilizing crop groups and other extrapolations, are expected to result in over 100 new registrations.

#### Plans

- Food Program (\$2,000,000)
  - Approx. \$850,000 will be used to cover field trial costs associated with 8 new studies
  - Approx. \$850,000 will be used to directly pay laboratories (IR-4 or private contract analytical) for the cost of residue analysis
  - Approx. \$300,000 will be used for study management, IR-4's Quality Assurance Team inspections and/or audits.

#### **Priority 4 – Regulatory Support Activities for Biopesticide/Emerging Technology Solutions - \$1,500,000**

IR-4 has maintained a small program that assists in the registration of biopesticide products and emerging technologies discovered/developed by the public sector scientists. In this area, IR-4 serves as a regulatory consultant to provide guidance and support to get the novel products through the regulatory process.

IR-4 lacks funds to perform any of the regulatory studies required for registration. Success depends on IR-4 waiver applications and existing inputs from others. It is proposed that IR-4 expand efforts and have funds available to contract out some studies that are required by EPA to support the registration of the public section crop protection technology.

#### Plans

- Biopesticide and Emerging Technologies (\$1,500,000)
  - Approx. \$1,350,000 to develop required data to support required data as part of IR-4's Biopesticide regulatory support functions.
  - Approx. \$150,000 to hire a new scientists to take leadership in receiving new requests for assistance, prioritizing potential research projects, developing research protocols, assessing data and distributing the data to stakeholders.

#### **Priority 5 – Equipment and Infrastructure - \$1,750,000**

A significant amount of equipment and infrastructure used in IR-4 research has reached the end of its expected useful life. This includes the analytical instruments used in residue analysis and the tractors and sprayers used in the field research. It also includes the need for new plantings of perennial crops and new and/or updated greenhouse testing facilities.

#### Plans

- Food Program (\$1,250,000)
  - Approx. \$750,000 to purchase (2) state-of-the-art analytical instruments (LC-MS-MS) for use in the IR-4 analytical laboratories in Gainesville, FL, and Davis, CA

- Approx. \$500,000 to provide approx. \$125,000 for each of the four regional offices to assist in upgrading field research equipment at the IR-4 sites, to assist in the cost of new plantings of perennial crops, and/or modernization of the non-permanent greenhouse structures.
- Environmental Horticulture Program (\$500,000)
  - Approx. \$500,000 to provide approx. \$125,000 for each of the four regional offices to assist in upgrading field research equipment at the IR-4 sites, to assist in the cost of new plantings of perennial crops, and/or modernization of the non-permanent greenhouse structures.