The IR-4 Project

Pest Management Solutions for Specialty Crops and Specialty Uses

Mission

To facilitate regulatory approval of sustainable pest management technology for specialty crops and specialty uses to promote public well-being.

What We Do

Established in 1963 by the U.S. Department of Agriculture to ensure that specialty and minor uses have legal access to safe and effective crop protection products.

- Work with growers and other stakeholders to identify pest management needs and solutions
- Conduct necessary crop safety, efficacy, and residue research
- Submit data to the U.S. Environmental Protection Agency and other entities for approval of new uses

Crops IR-4 Supports

- Specialty crops: Fruits, vegetables, tree nuts, herbs, spices, and horticulture and nursery crops
  - (USDA, Section 101 of the Specialty Crop Competitiveness Act of 2004)
  - High value/low acreage crops
- Minor uses of major crops

Why Our Work Matters

- Pests don’t discriminate between major and specialty crops
- Resistance to existing tools continues to increase
- Specialty crop growers often left with fewer tools for managing pests

Why Our Work Matters

IR-4 is the **only publicly-funded program** that conducts research and submits petitions to the U.S. EPA for the approval of new tolerances and registration of additional uses of pest management tools.

Technology Neutral

Give organic and conventional farmers the tools and let them decide which ones to use:

- Chemical pesticides
- Biopesticides
- Biotechnology
- Emerging technologies

Economic Impact

The IR-4 Project contributes to more than **123,000 U.S. jobs** throughout the agricultural production value chain.

IR-4's efforts and jobs contribute approximately **$8.97 billion** to the annual gross domestic product.

- Michigan State University Center for Economic Analysis (2021)

2020/2021 Activities & Accomplishments

Item	2020	2021
Food Approvals (Tolerances/Registrations)	107/573	115/640
Food Reside Projects (Studies/Trials)	72/416	48/341
Food Product Performance (Projects/Trials)	44/88	37/79
Integrated Solutions Projects (New/Carry over)	7/7	14/7
Food Submissions to EPA (Chemistries/PRs)	22/126	20/103
EH Approvals (Registrations/Impacted Crops)	4/690	1/950
EH Research Summary Submissions	24	20
EH Protocols	28	29
EH Research (Studies/Field Trials)	486/689	410/598

Participants in the Process

Funding Support

- U.S. Department of Agriculture
- USDA – National Institute of Food and Agriculture
- USDA – Agricultural Research Service
- USDA – Foreign Agricultural Service
- USDA – Animal and Plant Health Inspection Service

Additional Support

- State Agricultural Experiment Stations
- Commodity and industry partners for special research projects
- Crop protection industry
- U.S. Environmental Protection Agency (waiver of submission fees)
- Minor Use Foundation and international partners (joint research projects)

Project Management Committee

- Board of Directors for IR-4
- Meets three times per year:
  - Develop policies and procedures
  - Set operational budgets
  - Review status of ongoing programs
  - Ensure overall goals are being met
- Members include:
  - IR-4 Executive Director
  - Regional Directors
  - Regional Administrative Advisors
  - Representatives from CLC

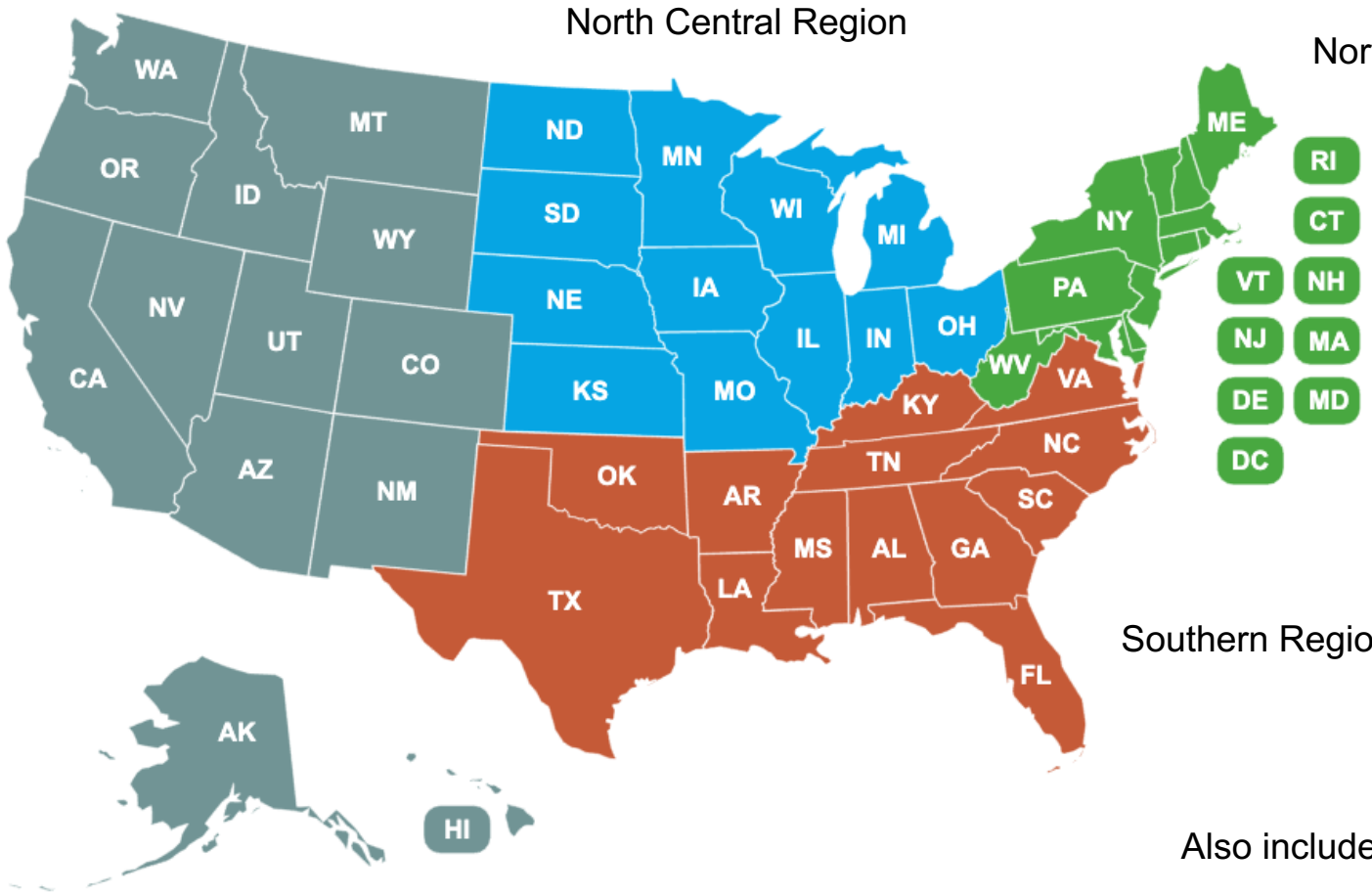
Commodity Liaison Committee

- Stakeholder committee representing various specialty crop commodity groups
- Provide guidance to IR-4 on ways to serve needs of crop growers
- Advocate for IR-4 to elected officials

IR-4 Project Regions and Local Support

- Regional field coordinators and state liaisons work with local growers and commodity groups to identify pest concerns and effective solutions
- Prioritize regional projects and advocate on national level
- Field research directors conduct and oversee trials locally

IR-4 Project Regions



Also includes USDA-ARS

Contact information: ir4project.org/regions

Program Areas

Food Crops

- Residue Studies
- Product Performance
- Integrated Solutions
- Biopesticide Regulatory Support
- International Activities

Environmental Horticulture

- Product Performance
- Pollinator Health
- Invasive Species

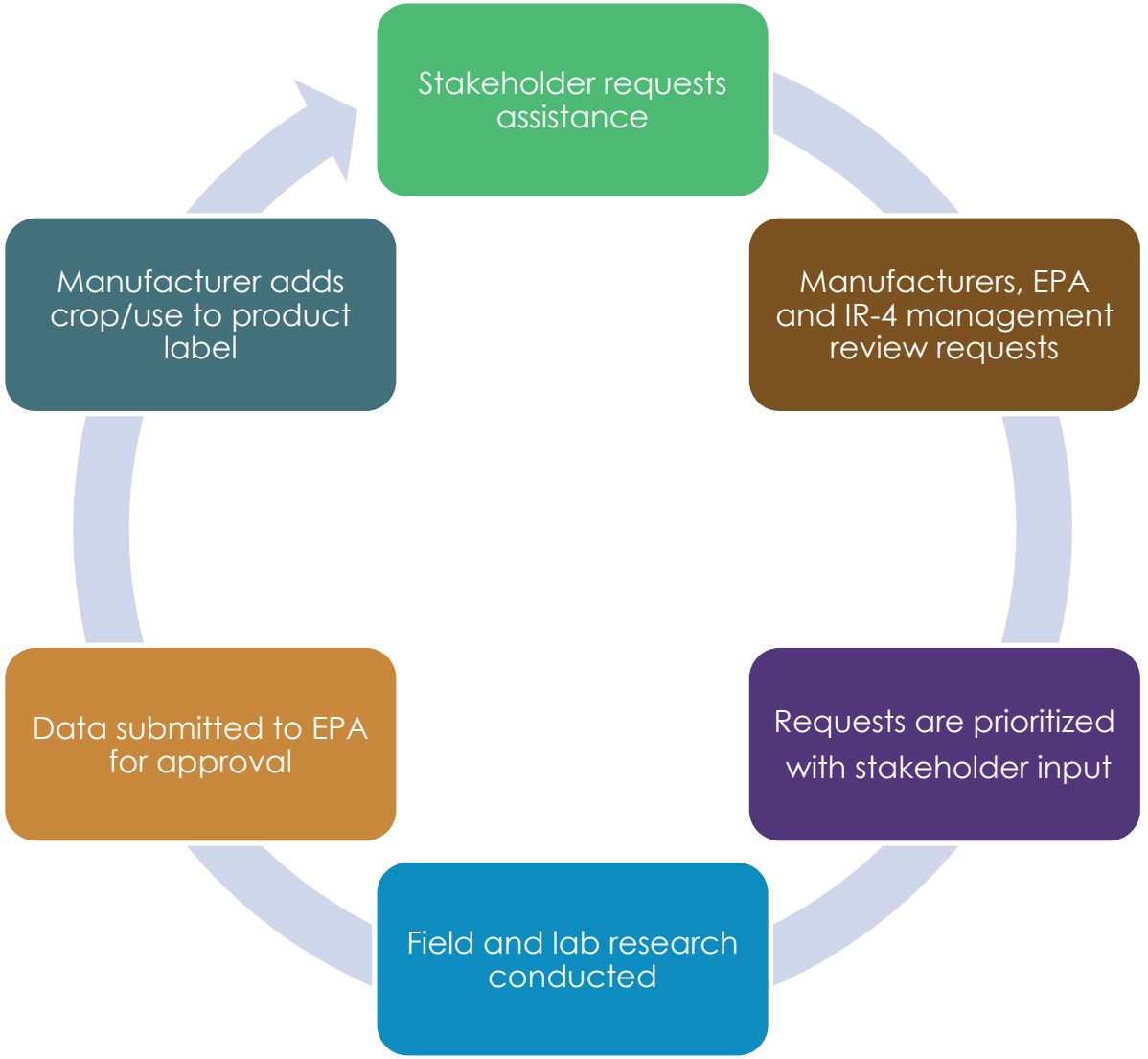
The IR-4 Project

Food Crop Program

- Facilitates approval of safe pest management solutions for specialty food crops
- Growers work with regional field coordinators to identify potential solutions for research

Photo courtesy of Dr. Wilfredo Robles

Project Request Process



Upcoming Prioritization Events:

Industry Technology Session
July 21, 2022
Virtual

2022 Food Use Workshop
September 13 – 15, 2022
Bloomington, MN

Residue and Product Performance

Generates data required to support registration of a single product for the management of a specific pest on a specific crop.

- **Residue:** Establishes residue tolerance for the crop
- **Product Performance:** Assesses the efficacy and crop safety of the pesticide

Integrated Solutions

Evaluates pest management technologies that specialty crop growers can integrate into their traditional tools to meet their needs, such as biopesticides and organic solutions.

Research areas include:

- Pest Problems Without Solutions
- Resistance Management
- Residue Mitigation
- Organic Food Production

Biopesticide Regulatory Support

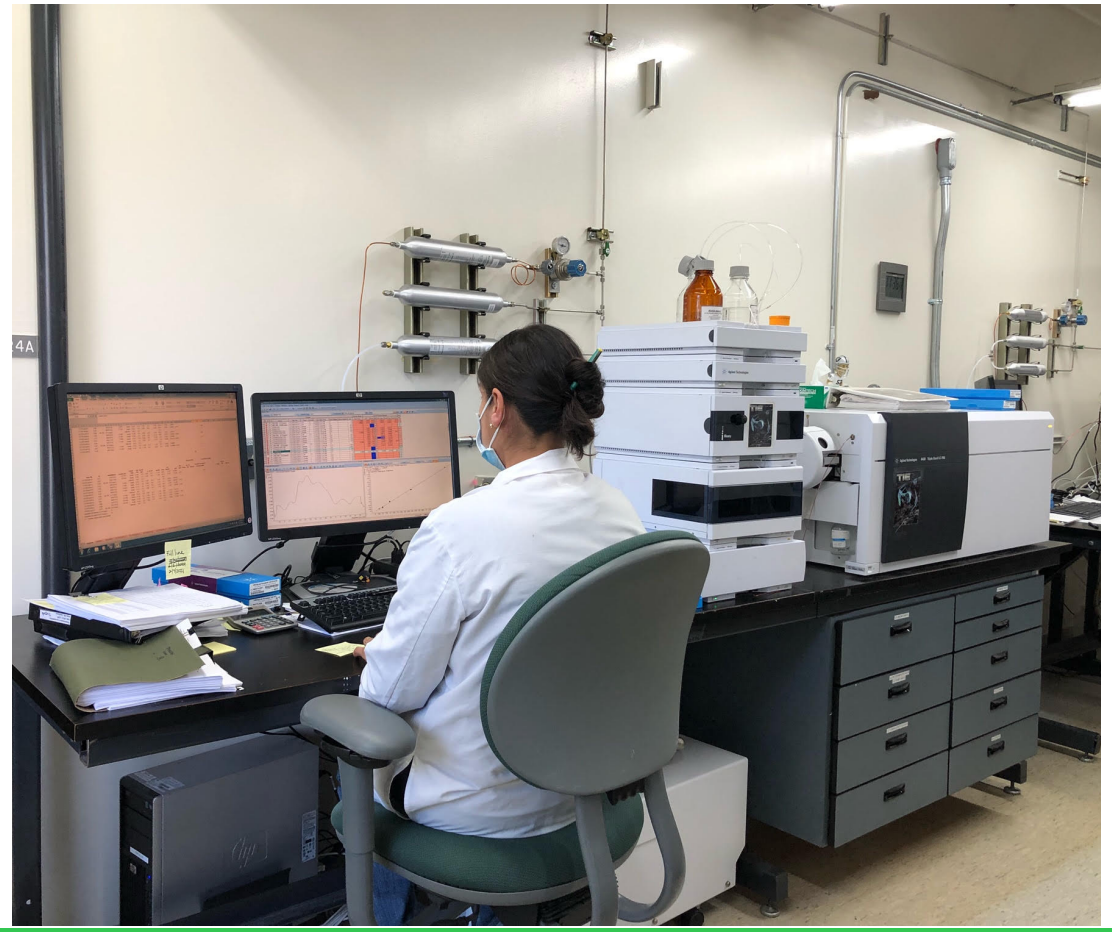
Objective: To further the development and registration of biopesticides for use in pest management on specialty crops and for specialty uses on major crops.

IR-4 provides regulatory assistance to public sector scientists and small businesses navigating the EPA registration process.

International Activities

- Global Harmonization
  - Harmonization of crop groups and maximum residue levels
  - Codex Committee of Pesticide Residue
- Capacity Building
  - Minor Use Foundation
- Joint residue studies
  - Pest Management Center Canada
- Policy enhancement
  - Global Minor Use Summit

2021 Research Snapshot

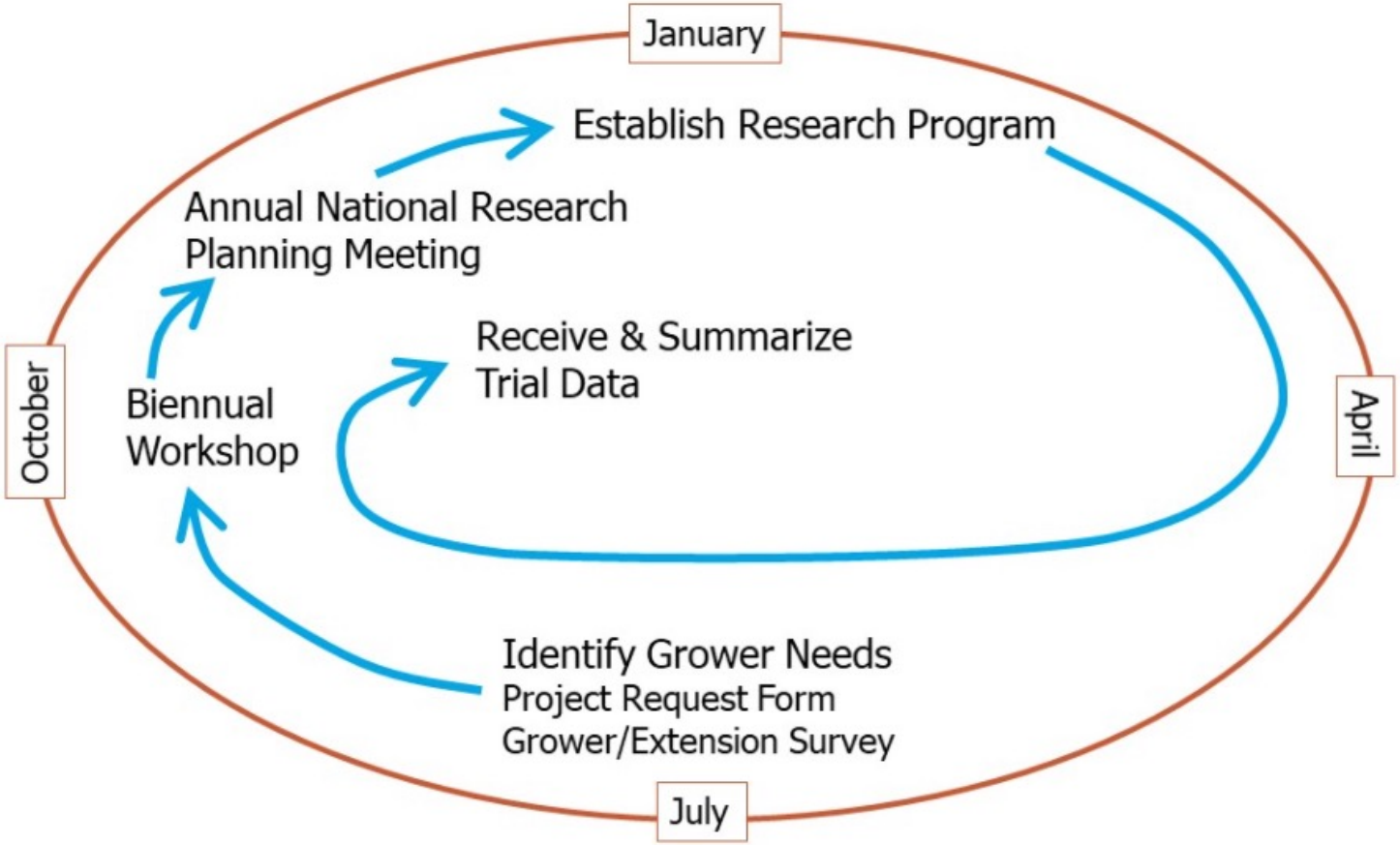


- 48 residue studies
- 37 product performance projects
- 20 petitions submitted to EPA
- 115 new tolerances established
- 640 new product uses

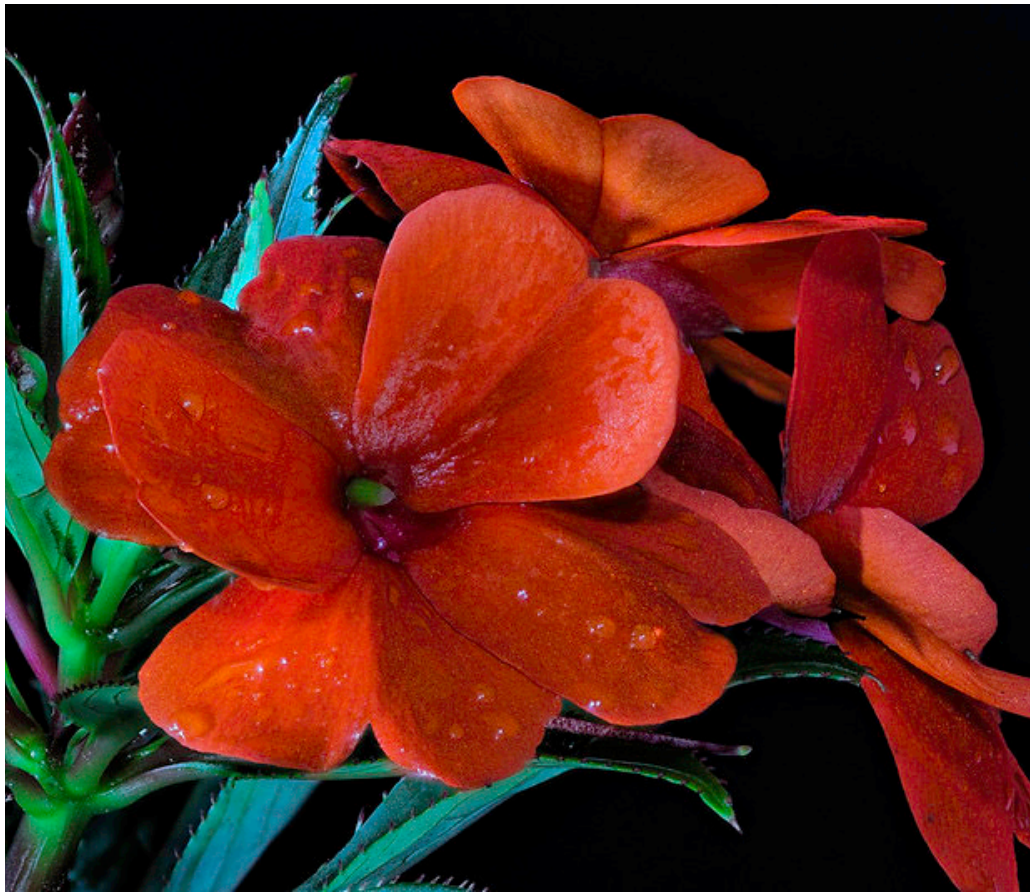
Environmental Horticulture Program

- Established in 1977
- Assists in development of pest management tools for use on ornamental plants
- Three key areas:
  - Registration support
  - Invasive species
  - Pollinator protection

Biennial Research Cycle



2021 Research Snapshot



- 20 research data summaries compiled
- 598 field and greenhouse trials initiated
- Two approved registrations (one new, one amended) impacted 1,511 ornamental crops
- Held biennial workshop to establish research priorities for 2022 and 2023

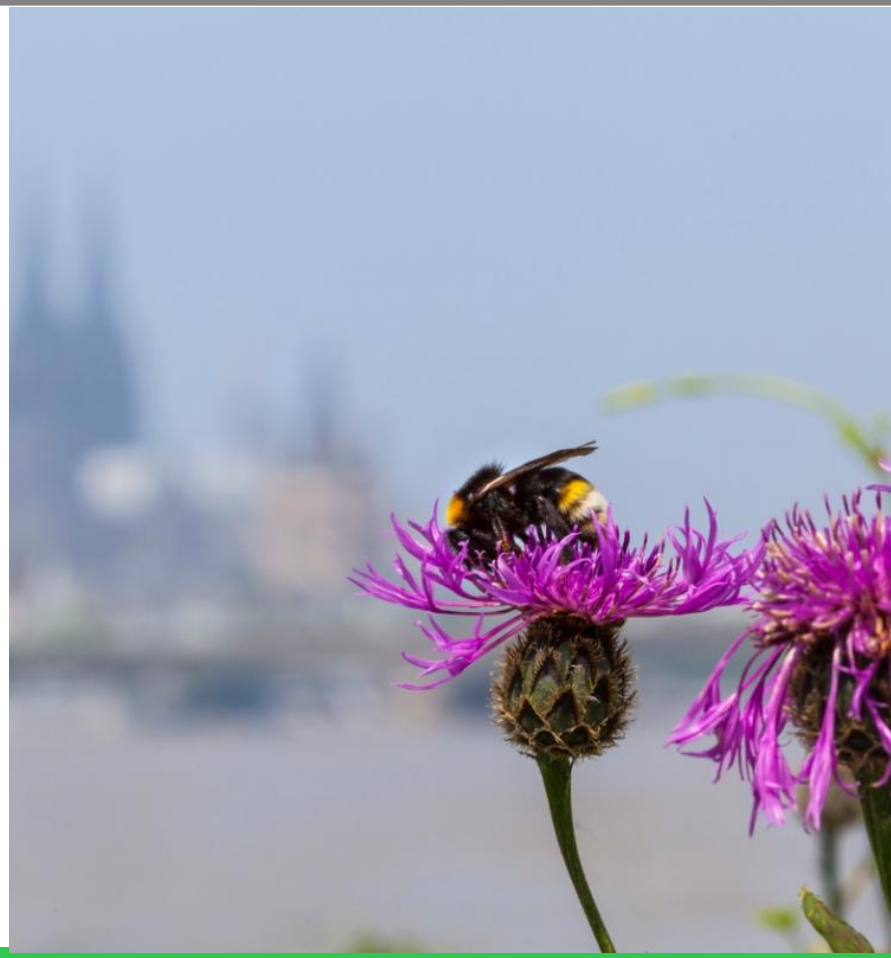
2021 Program Activities

Downy Mildew and Box Tree Moth

- Facilitating multi-institutional studies funded by USDA-APHIS
- Track and develop strategies for mitigating these pests

Protecting Pollinators Project

- Fifth year of the project
- Completed studies of systemic insecticides in pollen and nectar of treated plants
- Wrote eight scientific and 26 trade articles based on research. Made 19 presentations.



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Connect With Us

Contact Us Directly:

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