

The **IR-4** Project

Pest management solutions for specialty crops and specialty uses



2020 Year-End Summary

Major funding provided by special research grants and Hatch Act funds from USDA - NIFA, in cooperation with the State Agriculture Experiment Stations, USDA-ARS, and USDA-FAS

Dear Friends,

As the saying goes: “These are the times that try one’s soul.” Like many, the IR-4 Project faced unprecedented challenges with the COVID-19 pandemic. Additionally, the relocation of our headquarters and funding uncertainty made 2020 unlike any other year in our 57-year history. Thanks to the resiliency of IR-4 personnel and stakeholders across the country, we met these challenges head-on and continued to provide pest management tools for America’s specialty crop growers. Continue reading to learn about the successes we achieved in 2020, and our goals for the future.

2020 Successes at a Glance

Food Use Program: 107 new tolerances established by 22 U.S. Environmental Protection Agency (EPA) actions based on IR-4 submissions, resulting in 573 new product uses.

- Establishment of **Crop Group 25: Herb Group**, and **Crop Group 26: Spice Group**. Established Subgroup 25A for fresh herbs and Subgroup 25B for dried herbs. The two new groups total **more than 600** commodities.
- Integrated Solutions (IS) focused research on **14** project areas, with the goal of developing systems of one or more chemical or bio-based tools to solve critical pest management issues.

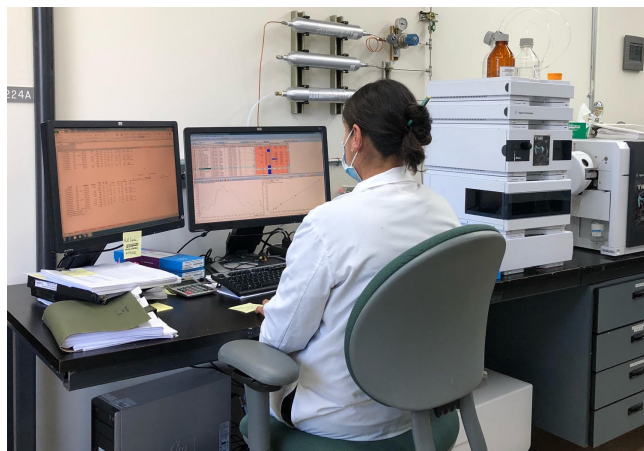
Environmental Horticulture (EH) Program: Compiled **24** research data summaries. Initiated **650** field trials. **Four** labels were registered in California, impacting **690** crops.

Biopesticide and Organic Support Program: Achieved **two** registrations with an exemption from tolerance: for the bioherbicide *Pseudomonas fluorescens* ACK55, and for sucrose octanoate, a biochemical insecticide/miticide.

Other Successes

Food Use and IS Program

- 2020 research included:
 - 60 new residue studies
 - 42 product performance projects
- Staff at many IR-4 analytical laboratories continued reducing the backlog of unanalyzed residue samples.
- Twenty-six petitions were submitted to the EPA.
- IR-4 continued to receive requests for assistance in defining data requirements to support product registrations on hemp, and in 2020 initiated its first hemp residue study.
- IR-4 continued work with the Canadian Pest Management Center on joint research projects. Canada contributed a number of field trials to the joint program that supports registrations in both countries, saving IR-4 an estimated \$500,000 annually and preventing trade irritants before they happen.
- IR-4 successfully held our annual priority-setting workshop in September and national research planning meeting in October, allowing us to establish Food Use and IS program research priorities for 2021.



Environmental Horticulture Program

- Non-core activities included the continuation of the Specialty Crop Research Initiative (SCRI) Protecting Pollinators Project's efforts to examine bee visitation to common annuals and herbaceous perennials. The team continued studies on the amount of systemic insecticides found in pollen and nectar of treated plants. They wrote more than five scientific and eight trade articles, and gave more than 40 presentations to multiple audiences.



Biopesticide and Organic Support Program

In addition to "exempt from tolerance" successes, a submission was made for oxalic acid dihydrate for an exemption from tolerance and a label amendment for control of Varroa mites. IR-4 also successfully obtained EPA biochemical classification for pongamia oil, an insect behavior disruptor targeting Spotted wing Drosophila, and a pesticide determination for sterile male mosquitoes.

International Activities

- In partnership with the Minor Use Foundation, IR-4 successfully held a virtual Global Minor Use Priority Setting Workshop in September, organizing requests for over 4,000 crop-pest combinations from 56 countries using a new merit analysis system and determining the top global needs in greenhouse, temperate, and tropical crops.
- IR-4 remains involved in global capacity building through development of expertise to conduct field and laboratory pesticide residue studies under Good Laboratory Practices (GLP), primarily with the Inter-American Institute for Cooperation on Agriculture (IICA) in Latin America and the Asia-Pacific Association of Agricultural Research Institutions (APAARI) in Asia.

Looking at 2021 and Beyond

- Research plans for 2021 include:
 - 60 new GLP residue studies/366 field trials
 - 41 product performance projects/97 field trials
 - 13 IS projects/38 field trials
 - Continuation of 2020 national EH priorities
- The Commodity Liaison Committee and Minor Crop Farmers Alliance continue to advocate for increased federal funding while IR-4 explores opportunities for resources from new sources.
- The transition of IR-4 HQ to NC State University is on target for completion in September 2021. University of Maryland Eastern Shore, an 1890 Land Grant Institution, has taken over administrative responsibilities for the IR-4 Northeast Region.
- IR-4 received approval to maintain our involvement with the Land-Grant University system for another five years.
- Virtual events will be held in 2021 to establish Food Use and EH research priorities for 2022.

Please see the [IR-4 Project 2020 Annual Report](#) for more information.

All the best,

Jerry Baron, Executive Director
The IR-4 Project

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