The IR-4 Project

2008 Year in Review

Providing Safe and Effective Pest Management Solutions for Specialty Crop Growers

2008 IR-4 Accomplishments

IR-4 Data Led To...

Food Use

In 2008 the US Environmental Protection Agency (EPA) reviewed a record **41** chemistries for IR-4 Food Use Program tolerance petitions compared with the 2007 record of 33. EPA also eliminated the remaining backlog of IR-4 petitions making 2008 one of the most productive years for IR-4. EPA established **241** permanent pesticide tolerances on these chemicals that could result in **999** new specialty crop use registrations many of which are considered reduced risk.

Biopesticide

The Biopesticide Program funded 29 research projects to provide data to support expansions on a number of biopesticide registrations. IR-4's efforts supported 18 new or modified products which could provide **128** new biopesticide uses.

Ornamental Horticulture

IR-4 Ornamental Horticulture Program data supported **7** new registrations and **1** registration amendment from EPA, as well as **4** California registrations. Six of the 8 EPA submissions contained efficacy data to support the new registrations/ amendments. These IR-4 supported successes impacted **3,095** ornamental plant species.

Crop Grouping

IR-4 continued the crop group update by submitting a proposal to the EPA to expand the tree nut crop group. EPA ChemSac has also approved the expansion of the fruiting vegetable crop group, and this along with pome, stone, citrus, and oil seed crop groups are expected to be published in the Federal Register in 2009.

Our Mission

The mission of the IR-4 Project is to provide safe and effective pest management solutions for specialty crop growers.

Our Vision and Guiding Principles

To achieve this mission, the IR-4 Project provides domestic growers of specialty crops with safe and effective crop protection tools to economically produce crops that enhance the diet and lifestyle of the public, while respecting the environment. In pursuing this mission, the IR-4 Project will be guided by the principles of transparency in decision making, partnership and teamwork in achieving objectives, and excellence in service to all stakeholders.

Cover photo: Cortney Hawkins and Chi Zhang harvest cucumbers at the USDA-ARS facility in Charleston, SC.

The Work

Project Planning

Significant effort goes into developing IR-4 deliverables, starting with project planning. In 2008, IR-4 modified its prioritization procedures for both the Food Use and Ornamental Horticulture Programs. The Food Use Workshop was streamlined to a two-day meeting by focusing discussions only on projects given an "A" priority nomination through a pre-workshop website process. The Ornamental Horticulture Workshop transitioned to a format of once every other year.

Once priorities are identified, field projects are initiated. In 2008, the IR-4 food crop program consisted of 573 field trials associated with 92 studies. The IR-4 Ornamental Horticulture program established 1,323 trials with greenhouse and field ornamentals crops in support of company registration decisions.

The quality of IR-4 work is paramount, and all food use residue studies are conducted in compliance with federal Good Laboratory Practice Standards. The IR-4 Quality Assurance Unit conducted **157** field and **73** analytical in-life inspections; and audited **651** field data books, **84** analytical summary reports, and

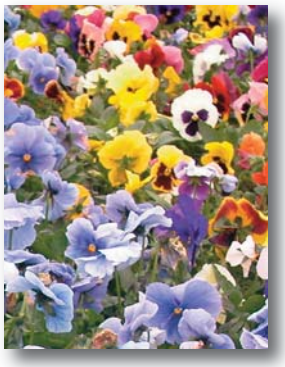
97 final/amended reports.

Once received at IR-4 Headquarters, the data is compiled and submitted to the cooperating companies and/or EPA for registration approvals. In 2008 the Food Use Program submitted

151

data packages, involving **36** chemicals, to EPA while the Ornamental Horticulture program submitted

12 data packages to registrants.



Our Beneficiaries

The primary beneficiaries of the IR-4 Project are the growers of food and non-food specialty crops as well as food processors.

The general public also benefits from the efforts of the IR-4 Project. The public has access to a healthy and diverse food supply at a reasonable cost. Specialty food crops include fruits, vegetables, herbs and nuts that nutritionists recommend as essential for a balanced and healthy diet. The non-food ornamental crops, which IR-4 work helps to sustain, enrich the environment and improve the quality of life.

Organization Profile

IR-4 has been the major resource for supplying pest management tools for specialty crop growers for forty-five years.

IR-4 is a highly effective, collaborative effort among the state agricultural experiment stations, CSREES, the USDA Agricultural Research Service (ARS), the US EPA, commodity growers, and the crop protection industry.

Global Activities

IR-4's Involvement

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

In 2008, the IR-4 Project conducted **19** cooperative studies with Canada's Pest Management Centre. A combination of **47** Canadian and **137** US IR-4 field trials were conducted to support the cooperative studies. This shared workload saves both countries significant resources. More importantly the cooperation leads to internationally harmonized pesticide tolerances for the US and Canada.

The 2008 Canadian Minor Use Pesticide Priority Setting Workshop

Harmonization

Additionally, IR-4 is actively reformatting existing data and submitting it to the Joint Meeting on Pesticide Residues/Codex Committee on Pesticide Residues to support establishment of Maximum Residue Levels. In 2008, IR-4 reformatted and submitted over **50** data packages with **5** active ingredients.

Global Residue Study

IR-4 was awarded a multiyear grant from USDA-FAS to manage a study to examine the influence of geographic location on pesticides residues. This study will be conducted in **21** countries.

In August 2008, the USDA-Foreign Agricultural Service (FAS) funded a Biopesticide Training Program in Kenya and Nigeria. IR-4's Biopesticide and Organic Support Program Manager, Dr. Michael Braverman, conducted the training.

IR-4's Dr. Michael Braverman, (center), explains the field residue trial procedure to Lucy Namu of Kenya Plant Health Inspectorate Service (right). Dr. Jason Sandahl of USDA-FAS (left) observed the training programs which are funded by USDA-FAS

FOREIGN AGRICULTURAL SERVICE
USDA

Funding/Return On Investment

The value of the IR-4 Project was highlighted through an economic analysis of the program. The Center for Economic Analysis at Michigan State University has published two reports concerning the IR-4 Project. In 2007, they first reported that the IR-4 Food Use Program contributes

$ 7.7 billion annually to the US gross domestic product (GDP).

A 2008 report found the IR-4 Ornamental Program provides an additional

$1.2 billion to the US GDP.

This data helped reinforce the value of IR-4 to the US Congress and IR-4 was appropriated an additional

$700,000 in 2008.

Thanks go to the IR-4 Commodity Liaison Committee and Minor Crop Farmer Alliance members for their efforts in securing this budget increase. These new dollars helped reduce the burden of several years of stagnant funding and restored some cuts experienced in 2007.

Funding

Major funding for IR-4 is provided by grants from USDA-CSREES and includes Hatch Act Funds, in cooperation with the State Agricultural Experiment Stations, and USDA-ARS.

Looking Ahead

The IR-4 Project convened a Strategic Planning Conference in December 2008 to focus on future needs and opportunities. Participants believe that maintaining and enhancing the core objectives of the Food Use, Ornamental Horticulture and Biopesticide programs is essential.

Proposed enhancements to these objectives include additional efficacy testing, management of invasive species that attack specialty crops, and activities that reduce or eliminate trade barriers caused by pesticide residues.

These suggestions are being integrated into the 2009-2013 IR-4 Strategic Plan.

USDA-CSREES Science Policy Legislative Affairs Advisor, Rob Hedberg (above) addresses participants at the IR-4 2008 Strategic Planning Conference.

Tough Decisions

This past year, the IR-4 Project Management Committee (PMC) made one of the most difficult decisions in the history of the program: to close the IR-4 Northeast Regional Analytical Laboratory at Geneva, NY. This lab has been operational since 1972 and has provided expert analysis from many skilled scientists and technicians. Losing this expertise and dedication made the decision even harder.

Over several years the program's lab capacity has exceeded the analytical field program requirements. Faced with this imbalance, the PMC agreed to consolidate one regional analytical laboratory into the other three regions. The decision as to which lab to close was made after careful and detailed consideration of each laboratory's existing equipment and needs, institutional support, and capacity to expand.

Note from Jerry

The IR-4 Project had a stellar year in carrying out its mission. In sharing these accomplishments, IR-4 recognizes the funding contributions from USDA (CSREES, ARS and FAS) and all the State Agricultural Experiment Stations who provide direct funding and hosting of IR-4 field centers, analytical laboratories and management offices.

Additionally, IR-4 acknowledges the contributions of our associates at EPA, California Department of Pesticide Regulation, Agriculture and Agri-Food Canada, our other global partners, and the crop protection industry.

IR-4 also thanks the members of the IR-4 Commodity Liaison Committee and the Minor Crop Farmers Alliance for their support and guidance.

Finally, thanks and credit go to IR-4 personnel in the field, at the laboratories, and in quality assurance, as well as those directing studies and managing the overall program.

Thank You!

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In-kind Support

State Agricultural Experiment Stations provide in-kind support valued at over $10 million annually. This includes support for: 5 analytical laboratories, offices, research farms, infrastructure, administrative support, scientific expertise, and activities for IR-4 State Liaison Representatives. Fieldwork for food use and ornamental horticulture is coordinated by Regional Field Coordinators in CA, FL, MI and NY, and by USDA-ARS in MD, for various sites in 31 states throughout the U.S. IR-4 laboratory analysis are conducted primarily at the CA, FL, MI, and NY agricultural experiment stations and ARS laboratories in GA, MD, and WA. Protocol development, data assimilation, petition writing, and registration processing are coordinated through IR-4 Headquarters, the crop protection industry, food processors, and state and federal regulators.