

“From New PCR to Labeled Use”

- Dan Kunkel - overview and global impact
- Van Starner — tracking stakeholder needs (PCRs), developing the annual plan for residue and performance research
- Debbie Carpenter — planning/conducting the residue program (field and lab)
- Tammy Barkalow — organizing and implementing the QA monitoring program
- Bill Barney — using crop grouping, compiling final reports, submissions to EPA, securing labels

Objectives

Food Program w/ Reduced Risk Products

- Residue trials, some efficacy & crop safety
- Crop grouping
- International harmonization, MRL's and registrations

Biopesticide and Organic Support Program

- Regulatory support and efficacy

Environmental Horticulture Program

- Efficacy and crop safety
- Invasive species

Public Health Pesticides



Objectives

Food Program w/ Reduced Risk Products

- Residue trials, some efficacy & crop safety

Integrated Solutions

- Find solutions for hard to manage and invasive pests
- Manage pest resistance
- Reduce pesticide residue levels to enhance trade (residue mitigation)
- Address needs for organic production

Bi

En

- Efficacy and crop safety
- Invasive species

Public Health Pesticides

Registrations



Timeline Cyantraniliprole/Hops PCR -12346



Need Identified 2015 ?
Flee beetle etc control, for IPM programs



IR-4 Process Starts Formal
Request Received 2017

2017 Workshop



Project Initiation - 2018

Field Phase July 2018



Analytic Phase Complete June 2019



Prepare report and
Submit to EPA June 2020

EPA review complete
December 2022
Label approved in 2023



(minimum of 8 years)

Send data out for export MRLs

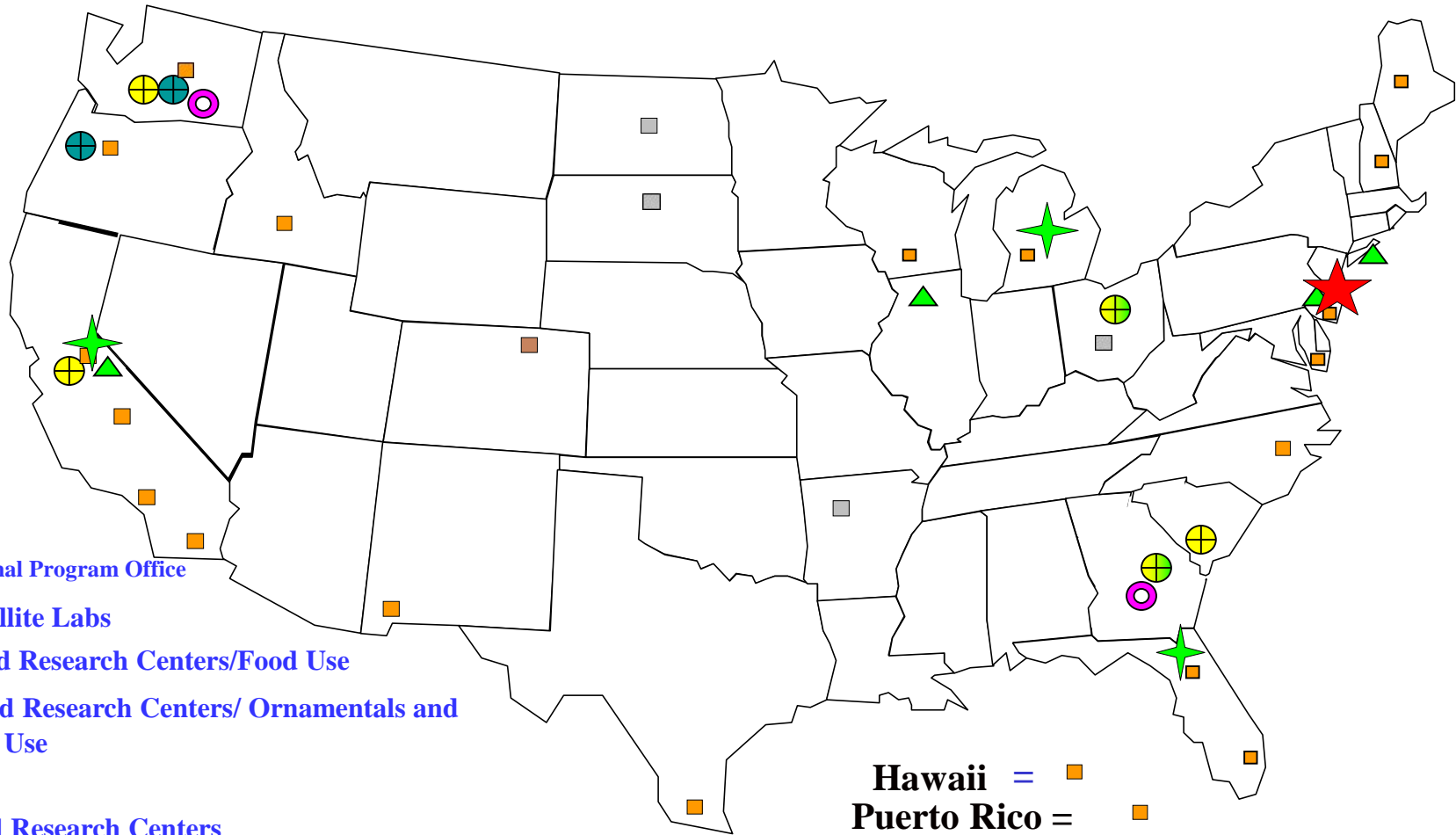


Typical Year of Residue Data Generation

- **Conduct 65 residue studies per year on 40 or more chemistries (about 450 field trials)**
- **EPA reviews and establishes tolerances (MRLs) on about 25 chemicals for IR-4 each year**
- **IR-4 is responsible for approximately 50% of all new MRLs established by EPA each year**
- **Through crop group extrapolations, etc., IR-4 data supports an average of more than 700 new uses each year. 2019 – 1,545**



IR-4 Project Infrastructure - Pesticide Residue work 65 studies/450 field trials



- ★ IR-4 HQ
- ★ IR-4 Regional Program Office
- State Satellite Labs
- State Field Research Centers/Food Use
- ▲ State Field Research Centers/ Ornamentals and Non-food Use
- ARS Labs
- ⊕ ARS Field Research Centers
- ⊕ ARS Field Research Centers
- ⊕ ARS Field Research Centers

Hawaii = ■
Puerto Rico = ■

EPA Timeline 15 Months



RD



HED (toxicology, chemistry, occupations & residential exposure)

EFED (ecological effects, environmental fate, drinking water)

BEAD (provides information on use and usage of pesticides)

Final steps in HED review

RD

Federal Register process (the final steps) – MRL established

Our Vision

Global network of capable minor use programs working together to solve the MUP

- Help establish and mentor these minor use programs
- Partner with other data development groups
- Address the many unresolved needs

In the end do more studies...and harmonize as we do research - proactively

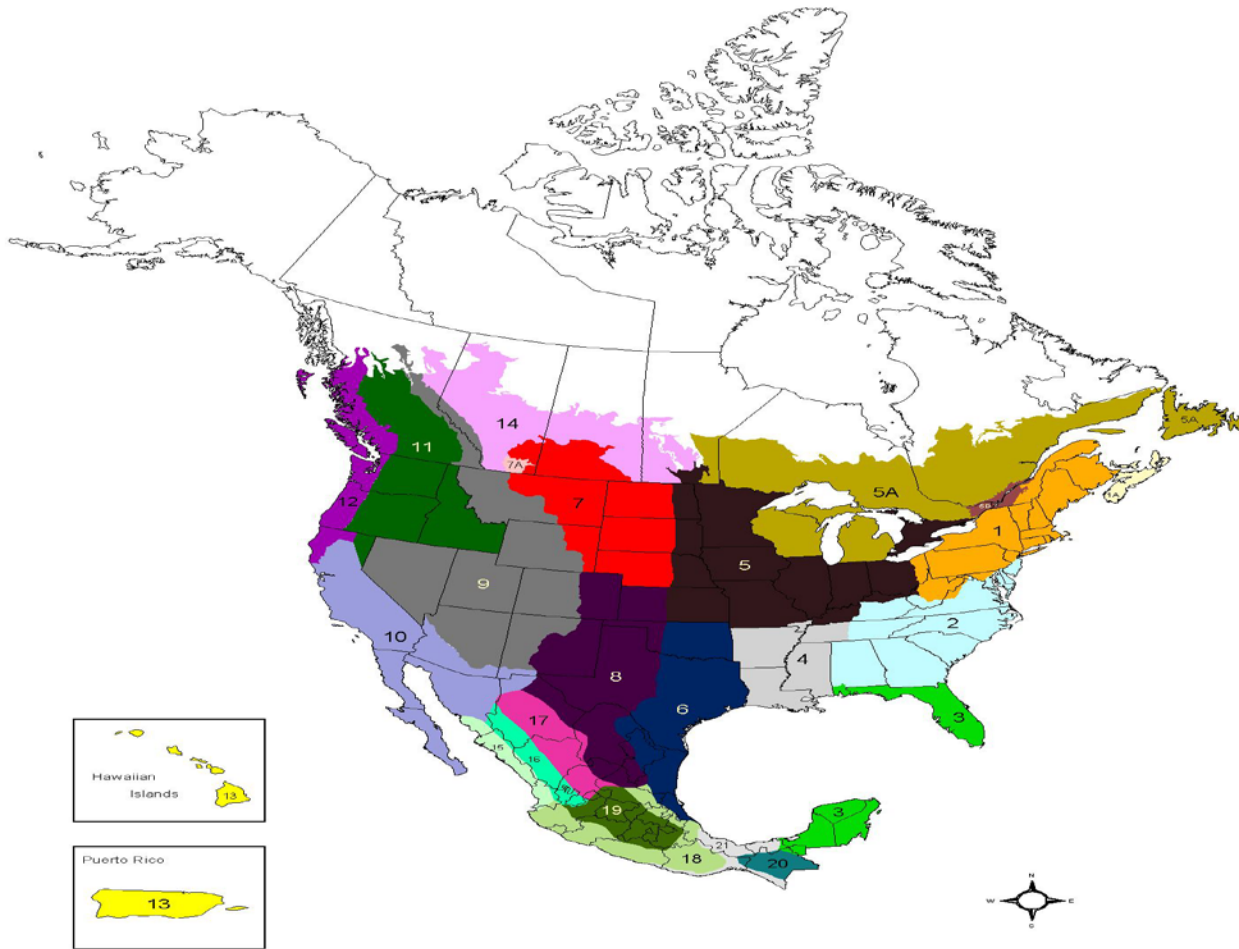
- Canadian Partnership

- 76 Residue Studies for IR-4

- 17 joint studies with PMC – common interest studies
- 468 Field trials
- 32 conducted by Canada
- \$192,000 direct savings to the IR-4 field program
- PMC was SD for three studies – they cover administration of the study as well a analytical cost (min of \$300,000)



North American Major and Minor Crop Field Trial Regions



Lambert Conformal Conic Projection

Scale 1: 28 000 000
250 0 250 500 Kilometers

Major and Minor Crop Field Trial Regions



NA Strawberry

Zones	1	2	3	4	5	6	7	7A	8	9	10	11	12	13	14	Total
Strawberry																
Canada	1				3								1			5
US	1	1	1		1						3		1			8
NAFTA	1		1		2						3		1			8

Codex Requirements

- Trial separation
- Declines...maybe
- More trials...for some crops (coffee, tropicals)
- Peeled and unpeeled.

IR-4 Global Activities

- Codex Committee on Pesticide Residues
 - Electronic working groups
 - Crop groups
 - Submit data
- Global Minor Use Summit
 - Updates/Working groups/Cooperative projects
- OECD – Expert Group on Minor Uses
 - Set guidelines for data development
- IR-4 Global Residue Studies/Training/Capacity Development

Funding

- Minor Use Foundation
- USDA-FAS
- WTO – STDF
- Etc.

Standards

Sweet Potato	United States	Canada	Egypt	EU	Japan	Korea	United Arab Emirates
Azoxystrobin (STADIUM and other products)	8	8	{1} (Codex)	{1}	{1}	{0.05}	{1} (Codex)
Boscalid (PRISTINE)	0.05	0.05	2 (Codex)	2	2	0.05	2 (Codex)
Flonicamid (BELEAF)	0.2	0.2	{0.03} (EU)	{0.03}	{0.01} Default	0.3	{0.03} (EU)

The IR-4 Process

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