

IR-4 Project International Activities Update

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Outline

- Brief IR-4 Overview
- Repurposing Existing Data to support MRLs
- IR-4's International Residue Studies
- Capacity Building
- Global Minor Use Workshop
- Global Minor Use Summit-3
- Global Fund



IR-4 Project

A US government funded research program

Facilitating the regulatory approval of sustainable pest management technology for specialty crops and specialty uses to promote public well-being



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
- Ornamental Horticulture Program
 - Efficacy and crop safety
 - Invasive species
- Public Health Pesticides

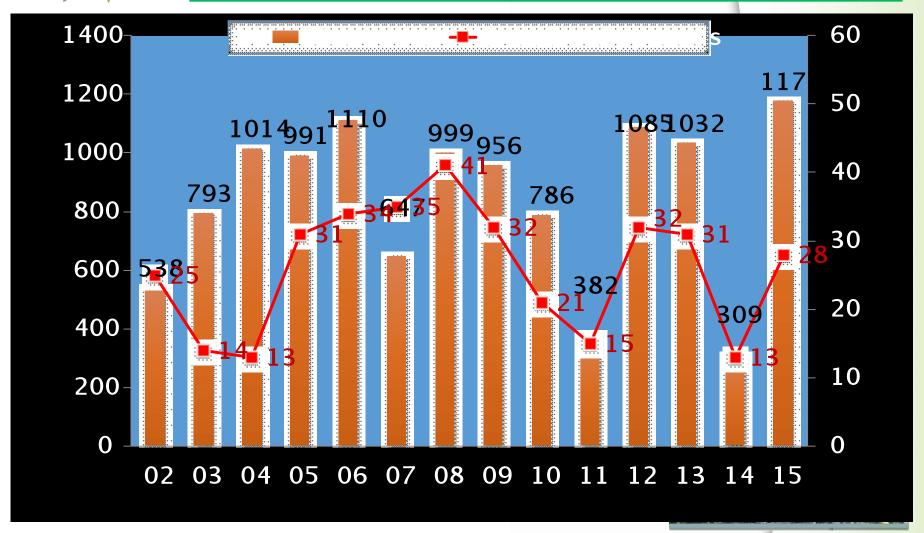


IR-4 Data

- Conduct 70 residue studies per year on 40 or chemistries (about 500 field trials)
- Submit approximately 80 study reports to EPA each year
- EPA reviews and established Tolerances (MRLs) on 20 or more chemicals per year.
- Through crop group extrapolations etc the data supports and average of more than 700 new uses each year.



Deliverables w/Food Crops



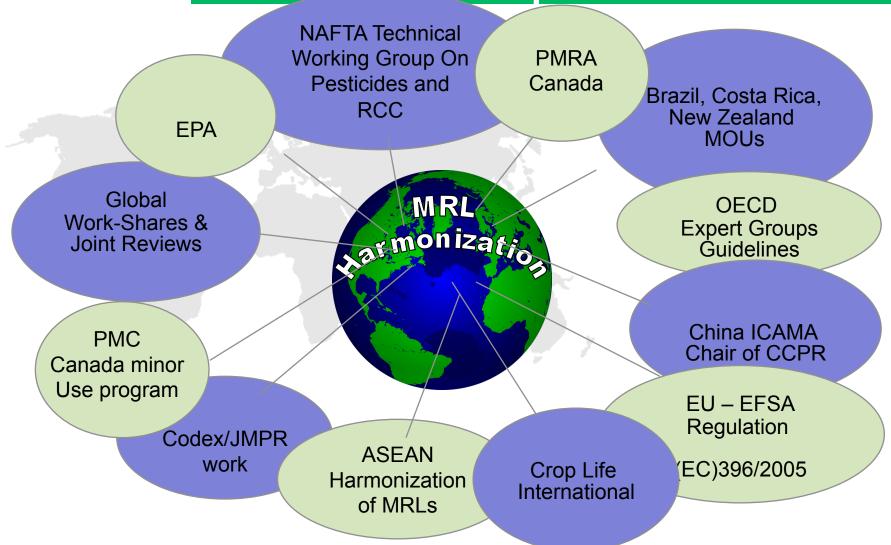


Crop Grouping

- NAFTA revision 2002, Codex Update followed
 - Last Crop group submission went to EPA in 2016
 - All Fruit types are done (NAFTA/Codex)
 - All Vegetable Types are nearly done, most codified in NAFTA and Codex to complete in 2017
 - Nuts and seeds nearly complete (tree nuts and oil seeds codified in NAFTA)
 - Grasses Cereal grains nearly complete in Codex, forage etc pending submission.
 - Herbs and spices being reviewed (NAFTA/Codex).



IR-4's efforts in International Cooperation



EU Minor Uses Coordination Facility

Jeroen Meeussen Coordinator





International Residue Studies



Global Residue Studies

IR-4's efforts are making a difference

- Global Zoning Study w/ Tomato
 - 4 ai's/28 locations
 - key part of EPA's global exchangeability proposal
- Blueberry GLP residue study in various regions
 - Managed by IR4
 - Harmonized MRLestablished & use is registered



Repurposing IR-4 Data



International Use of IR-4 Data

Codex/JMPR

- Work with commodity groups and EPA to add uses (chemicals) to JMPR work plan
- Review JMPR work plan and dovetail IR-4 data with chemicals scheduled for review
- Work with EPA and Registrants to submit data to JMPR
- Nominate Chemicals for JMPR review
- Consider working with other countries to nominate chemicals or add commodities to JMPR workplan
- 2016 Results
 - IR-4 data impacted 70 MRLs
 - Directly responsible for 23 CXLs



International Use of IR-4 Data

Additional examples include:

- Hop exports to the EU
- Citrus and Berry growers to Asia markets
- Cranberries to the EU



Data Development Next Steps

New TASC grant request

Enhanced Data Sets to Satisfy
International Data Requirements for
Establishment of Appropriate Maximum
Residue Level's (MRL's) to support US
exports.



Capacity Building



International Residue Studies – Capacity Building or Research >60 Countries, >>100 Scientists.





Global Minor Use Workshop





Global Minor Use Workshop

- Sponsors
 - IR-4 (USDA), Australia, Canada, the EU and others)
- First step in global research approaches to solve minor use needs.
- Created a global database
- ID common critical pest management voids
- Plan Cooperative research or data sharing.
- Nearly 200 attendees from 30 countries.



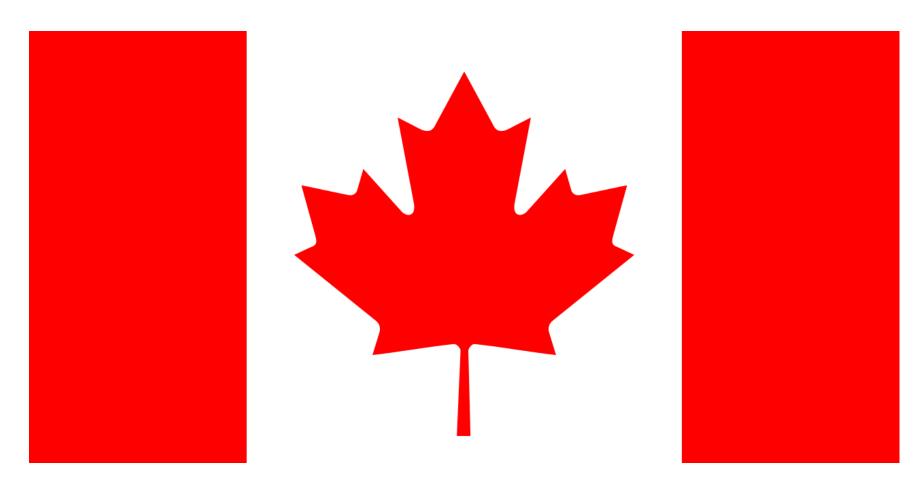
GMU Workshop Priorities

Cropping System	Pest/Crop rank 1 - A (highest votes)	Pest/Crop rank 2 - B (votes)	Pest rank 3 – B (votes)
Protected CANADA	Aphids on lettuce Possible Solutions: Flonicamid Pymetrozine Cyantraniliprole Sulfoxaflor NA 11630	Thrips on fruiting vegetables, other than cucurbits Possible solutions: Cyantraniliprole Novaluran Cyclaniliprole	Whiteflies, fruiting veg, other than cucurbits Possible solutions: Flupyradifurone Cyantraniliprole Novaluran NA 11630
Temperate EUROPEAN UNION	Downy mildew on leafy vegetables (eg Lettuce, Spinach, greens). Possible solutions: Zoxamide Ametoctradin + Dimethomorph Acibenzolar Fluopicolide + Propamocarb Cyazofamid Oxathiapiprolin FAMOXADONE + CYMOXANIL	Aphids on legumes crops Possible solutions: Flonicamid Pymetrozine Cyantraniliprole Sulfoxaflor Dinotefuran Spirotetramat Flupyradifurone NA 11630	Weeds on leafy vegetables (eg Lettuce, Spinach, greens). Possible solutions: s-metolachlor
Tropical UNITED STATES	Fruit flies on inedible peel, tropical crops Possible solutions: Spinosad Cyantraniliprole Kaolin NA 11630	Anthracnose on inedible peel, tropical crops Possible solutions: Isofenamid Trifloxystrobin + Fluopyram Pyraclostrobin + Metiram Mandistrobin Azoxystrobin + Difenoconazol Cyprodinil + Fludioxonil Penthiopyrad	Psyllids on Citrus crops Possible solutions: Diflubenzuron Flonicamid Sulfoxaflor Buprofezin NA 11630



Global Minor Use Summit-3

Autumn 2017





Global Vision





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.

Global Process

Current framework

1000*
possible
projects



Global Workshop



Priorities 3 tropical 3 temperate 3 protected



Funding



Research goes forward, following year or longer

International Organizations,

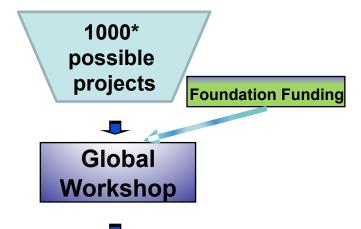
Grower, researchers, Farm advisors

Identify top research priorities

Use consensus decision making process

Industry and
Regulatory attend
and must provide
"buy in" for selected
projects

Proposed framework..
For a successful model



Priorities – based on needs and funds



Research starts
as soon as
priorities are
determined

Use Global Research Hubs



Dan Kunkel: IUPAC Award for Advances in Harmonized Approaches to Crop Protection Chemistry



THANK YOU!

