IR-4's Support for US Exports
New Strategic Plan: Vision 2020

Dan Kunkel

Associate Director, IR-4 Program

Food and International Programs

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
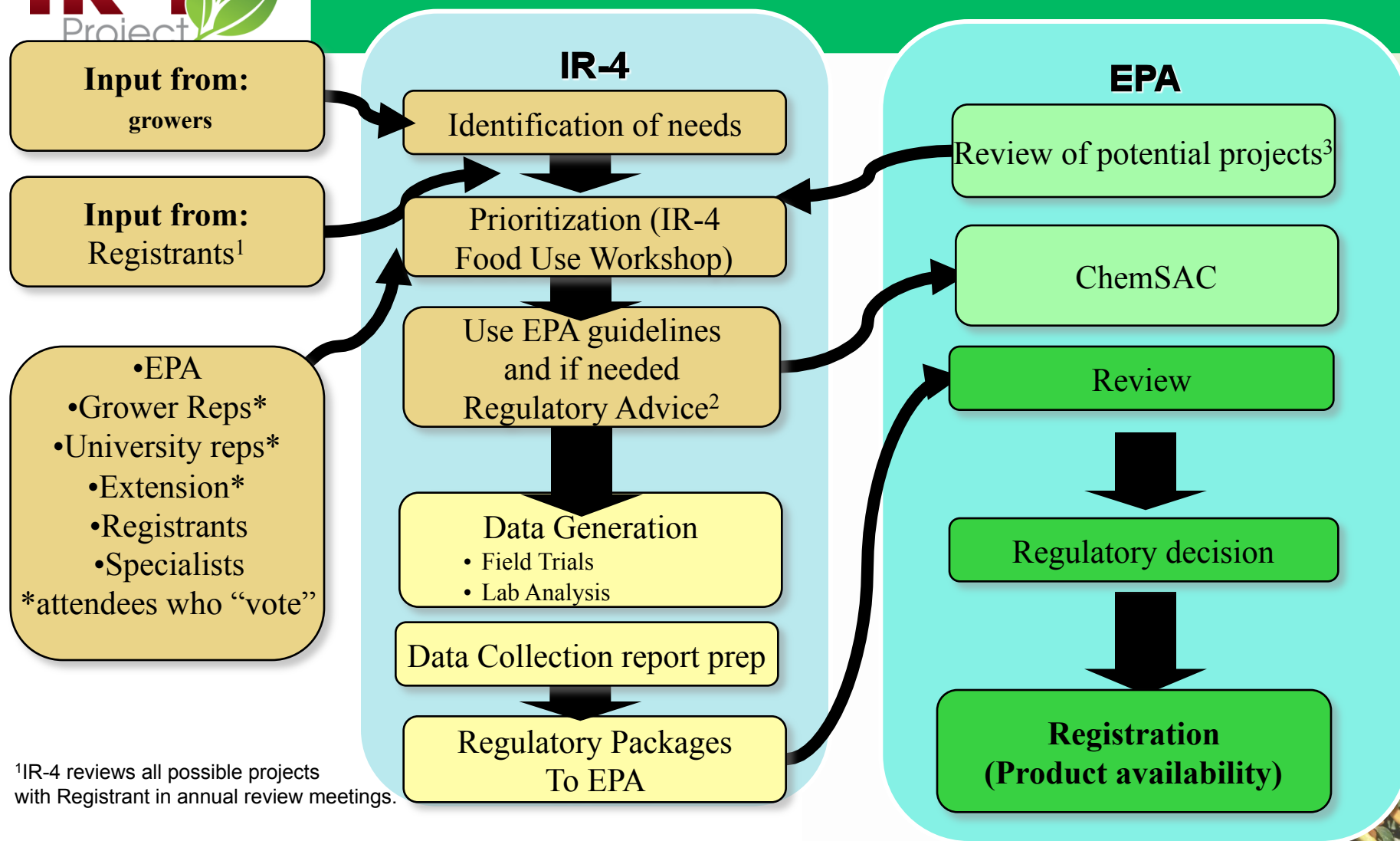
Objectives

- **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
- **Public Health Pesticides**

IR-4 Process Map

The IR-4 Project

IR-4

Input from:
growers

Input from:
Registrants[1]

- EPA
- Grower Reps*
- University reps*
- Extension*
- Registrants
- Specialists
*attendees who "vote"

Identification of needs

Prioritization (IR-4 Food Use Workshop)

Use EPA guidelines and if needed Regulatory Advice[2]

Data Generation
- Field Trials
- Lab Analysis

Data Collection report prep

Regulatory Packages To EPA

EPA

Review of potential projects[3]

ChemSAC

Review

Regulatory decision

Registration (Product availability)

[1]IR-4 reviews all possible projects with Registrant in annual review meetings.

[2] IR-4 may submit project specific questions to EPA (e.g. sampling size, trial requirements) for their consideration and guidance

[3]EPA reviews list to see if any regulatory issues exist, before workshop

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30 Month Timeline

Project Initiation
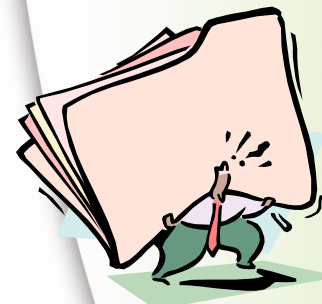
0-month

Field Phase

2nd month

Analytic Phase

10th month

Petition Prep

22nd month

Submission to EPA

30th month

IR-4 Data

- **Conduct 80 MOR studies per year on 40 or chemistries (about 550 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 over 700 new uses each year.**

Deliverables w/Food Crops
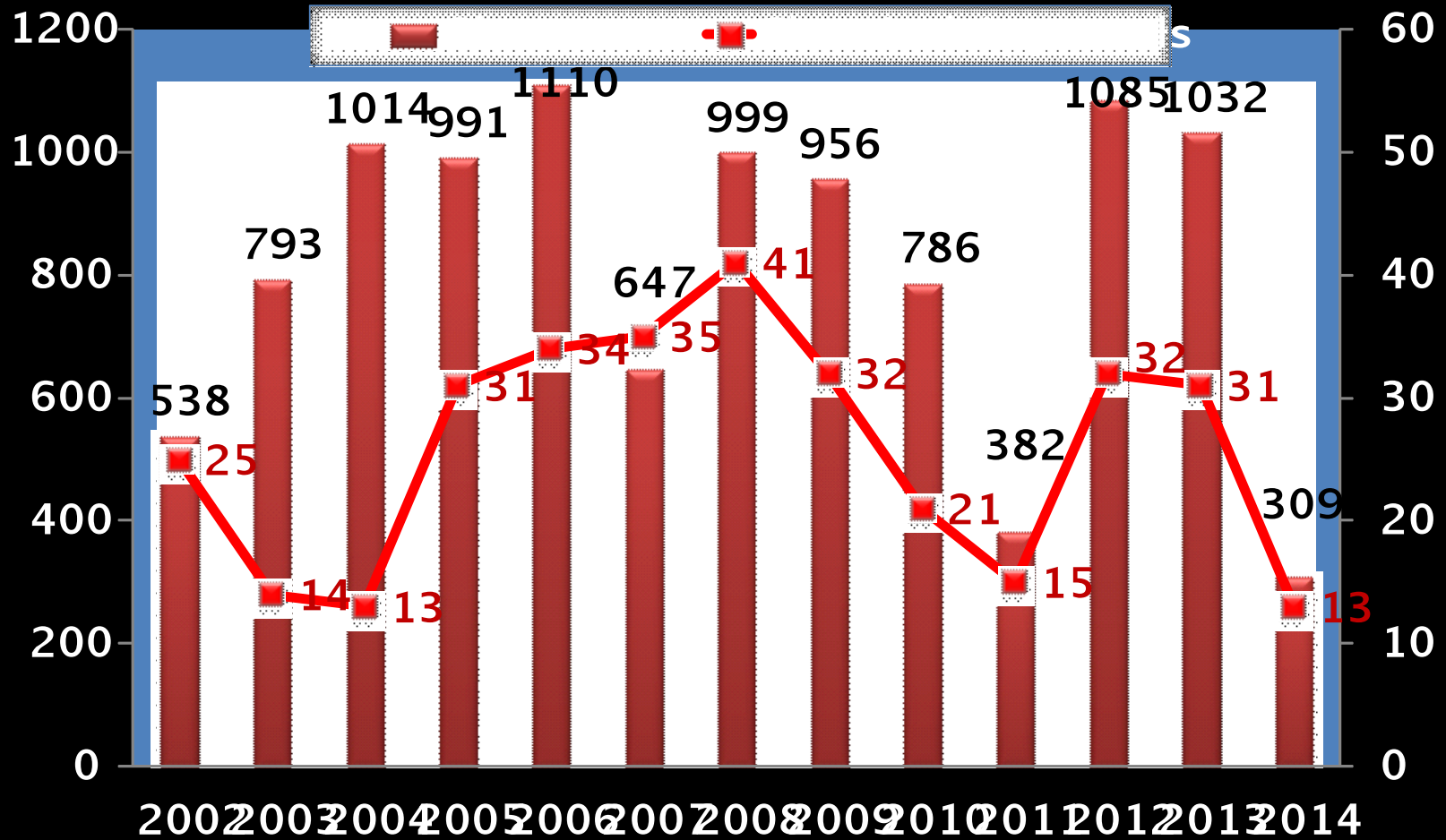
EPA Submissions 2014

- **36 chemicals,**
- **43 different submissions**
- **Should address 221 specific IR-4 requests**
- **Cucurbit vegetables petition to propose new crops**

See IR-4 2014 Annual Report for full details.

2014 Funding

GROUP	AMOUNT	PROGRAM(S) SUPPORTED
USDA-NIFA	$11,916 000	Food, Ornamental, & Biopesticide
USDA-ARS	$ 3,570,000	Food & Ornamental
USDA-ARS/DoD	$ 252,000	Public Health
USDA-FAS*/STDF	$ 350,000	Food (International)
USDA-APHIS*	$ 900,000	Ornamental (Invasive pests)
NRSP-4	$ 481,156	Food, Ornamental & Biopesticide
Grants from Industry	$ 1,100,000	All
TOTAL	$18,569,156**	

*2014 was last year of funding for these grants

**Does not include in-kind contributions that are provided by
State Agricultural Experiments Stations, Canada, EPA,
growers and the crop protection industry.

In-kind contribution valued at over $18 million annually

IR-4 National Headquarters

- **Located at Rutgers University in New Jersey**
- **Responsible to manage and coordinate the day to day activities of the program**
- **Staffed with 30 full and part time Scientists, Coordinators (Study Directors, Product managers, QA) & Administrative Personnel**
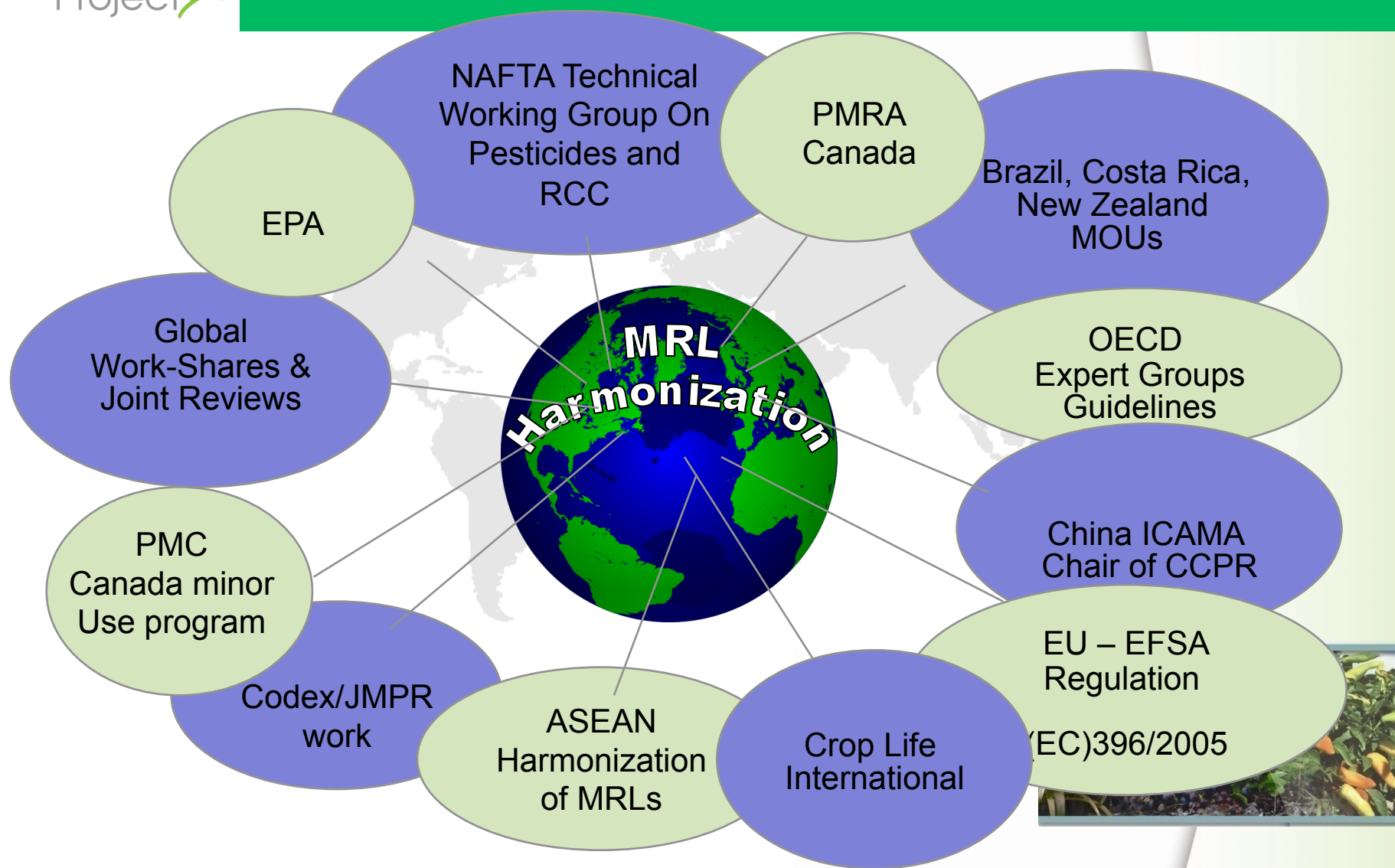
IR- 4 Regional Offices

- **Southern Region - University of Florida, Gainesville, Florida**
- **North Central Region - Michigan State University, East Lansing, Michigan**
- **Western Region - University of California – Davis, California**
- **USDA – ARS – Companion program**
- **Northeast Region - ~~Cornell University, Geneva, New York~~**

IR-4 efforts in International Cooperation

The IR-4 Project

MRL Harmonization

- NAFTA Technical Working Group On Pesticides and RCC
- PMRA Canada
- Brazil, Costa Rica, New Zealand MOUs
- EPA
- OECD Expert Groups Guidelines
- Global Work-Shares & Joint Reviews
- China ICAMA Chair of CCPR
- PMC Canada minor Use program
- EU – EFSA Regulation (EC)396/2005
- Codex/JMPR work
- ASEAN Harmonization of MRLs
- Crop Life International

International Use of IR-4 Data

- **Provide data to any commodity group that needs data to support export markets**
  - Hop exports to the EU
  - Citrus and Berry growers to Asia markets
  - Cranberries to the EU
  - Annual JMPR submissions

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**

Cooperation with MFGs

- IR-4 submits the data directly to JMPR
- IR-4 provides data to the registrant for submission to JMPR
  - Either bundled with uses they already have scheduled and plan to submit or
  - all of the uses listed are supported by IR-4 data, but the MFG makes the submission to JMPR
- The MFG submits IR-4 data that they already have in their files

IR-4 Submissions to JMPR

Pest Control Agent / Type	Commodities
Acetamiprid	Asparagus, Mustard Greens, Sweet Corn
Tebuconazole	Asparagus, Bulb Onion, Green Onion
Cyazofamid	Hops Basil**, Succulent bean**, succulent shelled bean**, Lettuce**, spinach**
Flonicamid	Canola**; mint**; strawberry**
Flupyradifurone	blueberry **; prickly pear cactus **
Chlorothalonil	Ginseng** Mango**, Peppers**, Mushrooms**, Pistachio**, Horseradish**, Rhubarb** cherry**
Bifenthrin	Head Lettuce, Spinach, Celery, Pea, Snap bean, Lima Bean, Blueberry, Grape

**indicates data IR-4 provided to the registrant for submission to JMPR
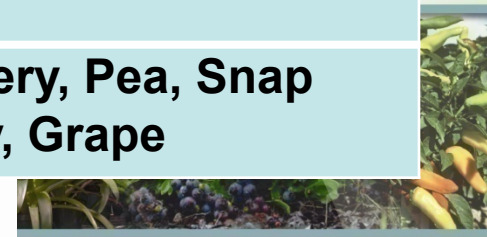
Support for IR-4 International Activities

- TASC - Support Market Access for Specialty Crops through harmonized Pesticide Maximum Residue Level's (MRL's).   - expired, but hope to re-activate

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

- Minor Use Foundation.

First Global Minor Use Priority Setting Workshop:
Seeking pest management solutions for growers around the world
September 20 - 22, 2015 in Chicago, IL, USA

Workshop Agenda and Activities

- Plenary session with GMU updates and overview of workshop goals
    - Experiences with ideal regulatory package
        - Regulatory
        - MFG experiences
        - CLI Case Study
    - Grower comments
        - Share how existing systems have worked
        - EU, how grower groups have come together to address needs
        - Brazil experiences
- New product discussions, products with potential for global development and cover a range of solutions (conventional , biopesticides or for organic production).
- Discuss database and survey
- Set priorities

Workshop Agenda and Activities

- Review process to date (as a pilot for collating information).
- Select project leads. (coordinator, study director etc.) – set up who and how the project can be completed.
- Discuss Performance studies.
- Seek/support Funding
- Get agreements with regulatory agency of the country of the coordinator.
- Get agreements of global owners of solution chemistry – Manufacturers.
- Anticipated attendees: Crop experts, growers, regulators, and pest control products industry.
- Set time-table and action items.
- IR-4 Annual Workshop to follow (September 22-24).
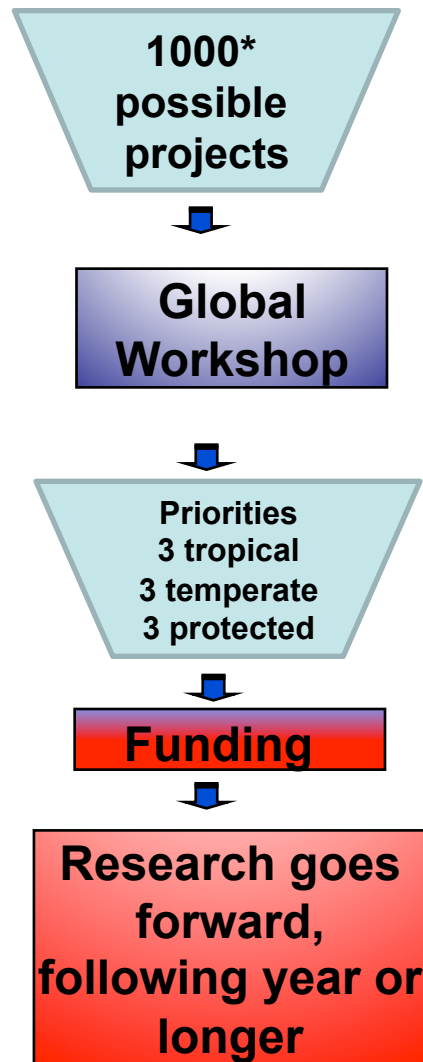
IR-4 Vision for Global Research

Establish a global network of capable minor use programs that can address grower needs and generate data.

- Help establish and mentor these minor use programs (e.g. China, Brazil, Costa Rica)
- Partner with other data development groups
- Promote lower risk products
- Ease technical trade burdens
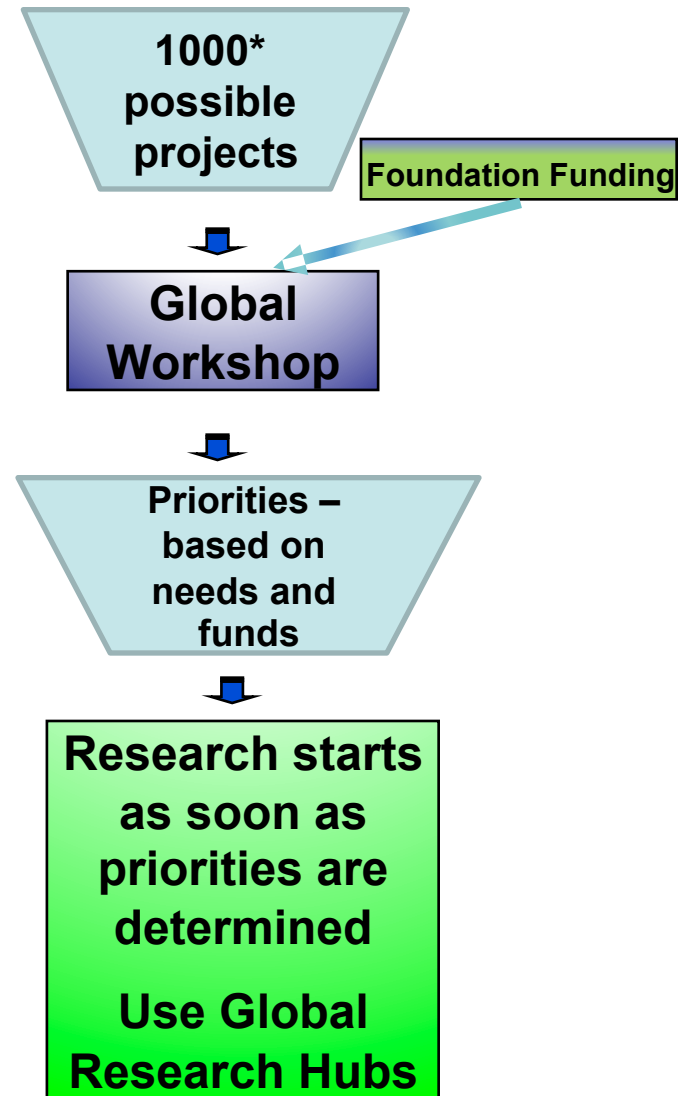
Global Workshop

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

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Proposed framework.. For a successful model

1000* possible projects

↓

Foundation Funding

Global Workshop

↓

Priorities – based on needs and funds

↓

Research starts as soon as priorities are determined

Use Global Research Hubs

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*priorities collected from survey and now listed in global database

Vision 2020

- Updated Strategic Plan.
  - Started with a survey
    - Over 550 stakeholders responded
  - Adopted 2014 to cover 2015-2020.
  - Refresh the Vision
  - See Summary: http://ir4.rutgers.edu/Other/RPMstrategicplan_Layout%201.pdf
  - See Full :http://www.ir4.rutgers.edu/Other/AnnualReports/IR-4%20Vision%2020208_13_14.pdf

The Survey Says!

IR-4 Should keep an eye on….

- New pest pressure
- Pest resistance to pesticides
- Increased need for product performance data
- Residue studies becoming more complex
- Internationalization of IR-4 data development
- Emerging science and regulatory issues

IR-4 Project Mission

Facilitating the regulatory approval of <u>*sustainable pest management technology*</u> *for specialty crops and* *specialty* ~~*minor*~~ *uses to promote* *public well-being*

Vision 2020

Plant Health Objectives

– Food Crops
- Residue Studies
- **MRL Harmonization, International**
- Crop Grouping
- **Efficacy & Crop Safety**

– Ornamentals/Environmental Horticulture

– **Biopesticides/Organics**

Vision 2020

- <u>Public Heath Pesticides</u>

- <u>Sponsored Programs</u>
  - **Considerations**
    - **Grower Funded Research**
    - **Invasive Species Management**
    - **International Capacity Building**
    - **Import Tolerances for US based food processors**
    - **Pollinator Protection**
    - **Other?**

Vision 2020

Other points

- Improving Efficiencies
- Empowering State Liaison Representatives
- Reinvestment in Infrastructure
- Development
- Land-Grant University Partnership

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Funding Request in Vision 2020

GROUP	AMOUNT	New Fund Support
USDA-NIFA	**$15,858 000**	Restore Capacity, Expanded E/CS, State programs, ID cost
USDA-ARS	**$ 5,075,000**	Restore Capacity, Expanded E/CS
USDA-ARS/DoD	$ 252,000	
USDA-FAS/STDF	$	
USDA-APHIS	$	
NRSP-4	$ 481,156	Food, Ornamental & Biopesticide
Grants from Industry	$ 2,500,000	Restore Capacity and infrastructure

Consider sponsored programs where stakeholders will contribute full funding to cover requested data development and regulatory activities.

Thank You

QUESTIONS?

Daniel Kunkel
kunkel@aesop.rutgers.edu
(732) 932-9575 ext. 4616