IR-4 International Activities Report
Dan Kunkel and Jerry Baron
Associate and Executive Director
IR-4 Project

MRL Harmonization Workshop
29 May 2019
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
- Magnitude of Residue studies
- Product Performance
  - (NEW) Integrated Solutions
- Crop Group Expansions
- Regulatory Support
- *International Harmonization of MRL’s*

Environmental Horticulture Program
- Efficacy and Crop Safety
- Special Projects
  - Invasive Species & Pollinator Protection
IR-4 Data

- Conduct 70 residue studies per year on 40 or chemistries (about 425 field trials)
- Submit approximately 70 study reports to EPA each year
- EPA reviews and established Tolerances (MRLs) on 20 or more chemicals per year (23 in 2018).
- Through crop group extrapolations etc the data supports and average of more than 700 new uses each year (918 in 2018).
Subsection (e) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i(e)) is amended in paragraph (4) (E) assist in removing trade barriers caused by residues of pesticides registered for minor agricultural use and for use on domestically grown specialty crops;

• We submit to Canada and Codex and provide our data to whoever requests it (growers MFGs etc)
• Please use our data – we have lots of it.
1. Codex Crop Groups
Crop Grouping – see our website….

Adopted (Updated) Codex Classification of Foods and Crop Groups
Crop Group Tables  (US current with updates)

CCPR Work Group, chaired by the US and co-chaired by Netherlands
(i) Continue the work on the revision of Class C, Animal feed commodities (taken into account silage, fodder, separate group for grasses).
(ii) Continue the work on the revision of Class D, Processed Food commodities.
(iii) ….  
(v) Continue to work on edible animal tissues (including edible offal) in collaboration with the CCRVDF EWG on edible animal tissues
1. Codex Crop Groups
2. Capacity Building
Develop global network of capable minor use programs working together to solve the minor use problem

– Help establish and mentor these minor use programs
– When US grower priorities align, partner with international partners
Case study: IR-4 Joint work with Canada

- 2017
  - Joint research/common interest on 22% of IR-4’s studies
  - Canada performed 32 field trials
    - $192,000 direct savings to the IR-4 field program
  - Canada was SD for three studies – They cover administration of the study as well a analytical cost (min of $300,000).
International Residue Studies – STDF Capacity Building for Research >60 Countries, >>100 Scientists.
Joint Statement, Dec. 2017 WTO Ministerial Conference:
Recognize the work undertaken to examine pesticide-related issues that have an adverse impact on international trade in food and agricultural products, and to achieve consensus on collaborative actions to reduce that impact on trade

Recent STDF report highlights positive impact:
Global projects plug pesticide data gaps to boost developing country exports
<table>
<thead>
<tr>
<th>Study</th>
<th>Countries participating</th>
<th>submitted to JMPR</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinetoram on lychee</td>
<td>Thailand: 6 trials, 1 study</td>
<td>2017</td>
<td>Codex MRL established in 2018</td>
</tr>
<tr>
<td>Spinetoram on mango</td>
<td>Thailand: 6 trials, 1 study</td>
<td>2017</td>
<td>Codex MRL established in 2018</td>
</tr>
<tr>
<td>Spinetoram on avocado</td>
<td>Colombia: 6 trials, 1 study</td>
<td>2017</td>
<td>Codex MRL established in 2018</td>
</tr>
<tr>
<td>Azoxystrobin plus difenoconazole on dragon fruit</td>
<td>Indonesia (6 trials), Viet Nam (1 trial): 2 studies*</td>
<td>2017</td>
<td>2 Codex MRLs established in 2018</td>
</tr>
<tr>
<td>Pyriproxyfen on papaya</td>
<td>Brunei (1 trial), Malaysia (3 trials), Philippines (3 trials): 1 study</td>
<td>2017</td>
<td>Codex MRL expected in 2019</td>
</tr>
<tr>
<td>Pyriproxyfen on pineapple</td>
<td>Panama: 6 trials, 1 study</td>
<td>2017</td>
<td>Codex MRL expected in 2019</td>
</tr>
<tr>
<td>Pyriproxyfen on mango</td>
<td>Malaysia (6 trials), Singapore (lab analysis): 1 study</td>
<td>2017</td>
<td>Codex MRL was expected in 2019 but is pending clarification and possible resubmission</td>
</tr>
<tr>
<td>Pyriproxyfen on banana</td>
<td>Costa Rica (7 trials), Guatemala (1 trial): 1 study</td>
<td>2017</td>
<td>Codex MRL was expected in 2019 but is pending clarification and possible resubmission</td>
</tr>
<tr>
<td>Sulfóxaflor on mango</td>
<td>Ghana (2 trials), Kenya (2 trials), Senegal (1 trial), Tanzania (1 trial), Uganda (1 trial): 1 study</td>
<td>by Nov. 2019</td>
<td>Codex MRL expected in 2021</td>
</tr>
</tbody>
</table>
International-Update

1. Codex Crop Groups
2. Capacity Building
3. Harmonized MRLs
Harmonized MRLs

• Most new IR-4 Studies designed to meet international data requirement via TASC grant – requesting a renewal
• Existing IR-4 data utilized to support Codex/international MRLs
  • Many of the MFGs are submitting IR-4 data
• Asia/LATAM capacity building projects yielded MRLs
1. Codex Crop Groups
2. Capacity Building
3. Harmonized MRLs
4. GMUS-3
Going Forward Plan

In summary:
The group agreed to work on the following themes over the next five years:

- Increase cooperation by creating minor use champions from different regions of the world;
- Actively promote the adoption of procedures to establish global maximum residue limits;
- Work towards a globally acceptable definition of “minor crops”;
- Find consensus on crop grouping and representative crops (crops that are similar enough that they can be treated the same, i.e. onions and leeks);
- Develop a white paper on capacity building to meet regulatory data requirements.

- Ultimately, securing more agreement about the approach to regulation and management of minor uses of pesticides internationally will provide producers better access to markets.
GMUS 3 Going forward

• Side meeting at CCPR
  – Promote Use of National reviews in JMPR
  – Promote Codex Crop groups to other countries
  – Progress on global access to MRL database
  – Codex List of Exempt chemicals proposal in 2019

• OECD
  – Expert group meeting. – Minor Uses, Biopesticides
  – Request update to Crop Field Trial Guidance with Codex Crop groups to other countries
1. Codex Crop Groups
2. Capacity Building
3. Harmonized MRLs
4. GMUS-3
5. Expanded Cooperative Work
1st Global Minor Use Workshop

On-going projects

• Spinetoram on banana, papaya and pineapple to control fruit fly and some lepidopterous insects. Boliva/Colombia/Ecuador/Panama

• Trifloxystrobin+ Fluopyram on papaya to control Anthracnose. US/PERU/Costa Rica

• Oxathiapiprolin on cacao bean (cocoa) to control pod rot. Colombia

• Banana to control nematodes (new Study) Costa Rica
Results for the Protected area (GH)

A priority selected:

- Powdery mildew (*Erysiphe cichoracearum*) on cucumber GH – flutianil suggested as potential solution – Project champions: Iris Bitterlich, Mike Bledsoe, and EU reps. IN PROGRESS. US/CAN

B priority selected:

- Thrips (*Frankliniella occidentalis*) on ornamentals – Pyridalyl, Biopesticide options suggested as potential solution – Project Champions: Cary Gates and potentially some EU reps
- Some other products were suggested by participants: spinetoram + sulfoxaflor, Azadirachtin
2\textsuperscript{nd} Global Minor Use Workshop

\begin{itemize}
  \item Results for the Temperate area
  
  A priority selected:
  
  \begin{itemize}
    \item Downy mildew (\textit{Peronospora belbahrii}) on basil – oxathiapiprolin suggested as potential solution – Project Champions: EU representatives. This product is currently registered in Canada and the US – assess gaps.
    \item Other products have been suggested:
      \begin{itemize}
        \item fluopicolide,
        \item Picarbutrazox – in progress CAN/US/Kenya.
      \end{itemize}
  \end{itemize}

  B priority selected:
  
  \begin{itemize}
    \item Weeds (Angiospermae) on lettuce – halauxifen-methyl and haloxyfop suggested as potential solution- Looking into Clethodim.
  \end{itemize}
\end{itemize}
Results for the Tropical area

A priority selected:

- Nematodes (*Radopholus similis*) in banana – Many solutions suggested: fluopyram, new *FLUAZAINDOZINE*, some biopesticide options i.e. *Burkholderia sp.* – Costa Rica agreed to lead.

B priority selected:

- Anthracnose (*Colletotrichum sp.*) in mango – suggestions for potential solutions TBD – Several on-going tropical projects w Fluopyram
Research goes forward, following year or longer

**Current framework**

- 1000* possible projects
- Global Workshop
- Priorities: 3 tropical, 3 temperate, 3 protected
- Funding
- Research starts as soon as priorities are determined

**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

Use Global Research Hubs

**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

Foundation Funding

*priorities collected from survey and now listed in global database
Foundation

• 501 (C) (3)
• The organization will provide funding for research to other qualifying organizations.
• Priorities resulting from the Global Minor Use Workshops.
• Board Chair – Dirk Drost, see press release
• Seek funding to support research and future meetings
• Establish an advisory committee
THANK YOU!