Registration of Pesticides for Specialty Crops: A Global Perspective

Jerry Baron
Executive Director
The 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
Solves Minor Use Problem
Objectives

Food Program
• Residue Studies → Pesticide Tolerances
• Product Performance Research
• Crop Group Expansions
• *International Harmonization of MRL’s*

Environmental Horticulture Program
• Efficacy and Crop Safety
• Invasive Species & Pollinator Protection

Biopesticides
• Regulatory Support
Why MRLs are an issue?

- Many US trading partners are modifying system of managing MRLs for imported crops
- The science improves → detection at 1 ppb is a reality
- Regulations increase, greater complexity of moving commodities through global markets
- New Products complicate trade
• Growers can not manage production for specific export markets
• Processors mix production lots
• If there are no MRLs in major markets the pesticide is not used.

U.S. Orange Exports
Thousands of Dollars

- Korea, South, $111,732
- Japan, $80,162
- China, $27,771
- Hong Kong, $70,901
- Malaysia, $20,908
- Australia, $18,177
- Singapore, $13,147
- New Zealand, $7,630
- United Arab Emirates, $6,438
- Other, $37,586
- Canada, $150,946

Provided by California Citrus Quality Council, 2012
<table>
<thead>
<tr>
<th>Sweet Potato</th>
<th>United States</th>
<th>Canada</th>
<th>Egypt</th>
<th>EU</th>
<th>Japan</th>
<th>Korea</th>
<th>United Arab Emirates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azoxystrobin</td>
<td>8</td>
<td>8</td>
<td>{1} (Codex)</td>
<td>{1}</td>
<td>{1}</td>
<td>{0.05}</td>
<td>{1} (Codex)</td>
</tr>
<tr>
<td>Boscalid</td>
<td>0.05</td>
<td>0.05</td>
<td>2 (Codex)</td>
<td>2</td>
<td>2</td>
<td>0.05</td>
<td>2 (Codex)</td>
</tr>
<tr>
<td>Flonicamid</td>
<td>0.2</td>
<td>0.2</td>
<td>{0.03} (EU)</td>
<td>{0.03}</td>
<td>{0.01} Default</td>
<td>0.3</td>
<td>{0.03} (EU)</td>
</tr>
</tbody>
</table>

From: https://www.globalmrl.com
1. Codex
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
Long term project to modernize the Codex Crop Groups

- Established the concept of Representative Commodities
- Develop data on Rep Crops, achieve MRLs on the Crop Group
- Harmonized with US/Canada approved Crop Groups

http://ir4.rutgers.edu/Adopted%20(Updated)%20Codex%20Classification.html
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
International Residue Studies – Capacity Building or Research >60 Countries, >>100 Scientists.
1. Codex Crop Groups
2. Capacity Building
3. Global Residue Studies
IR-4 GLOBAL RESIDUE STUDY-Blueberry

26 total field sites in 9 countries
Harmonized MRLs

- Most new IR-4 Studies designed to meet international data requirement
- 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. Global Residue Studies
4. Global Leadership
Third Global Minor Use Summit (GMUS-3)

Developing Strategies for Specialty Crop and Minor Use Programs and Harmonization:
Filling the Tool Box for Growers
Third Global Minor Use Summit

- Montreal, Canada from October 1-4, 2017.
- Over 210 attendees from 35 countries.
- Good representation from Government, Registrants and Growers / Growers associations.
- The plenary session provided updates from various minor use and government agencies regarding progress of the key action items identified in the past Summits
- The breakout sessions focused on the key areas of interest involving the Regulatory, Industry and Grower sectors.
Growing Forward Plan

Securing agreement about the approach to regulation and management of minor uses of pesticides

• Creating minor use champions from different regions of the world;
• Promote the adoption of procedures to establish global MRLs;
• Work towards a globally acceptable definition of “minor crops”;
• Find consensus on crop grouping and representative crops
• Develop a white paper on capacity building to meet regulatory data requirements.
1. Codex Crop Groups
2. Capacity Building
3. Global Residue Studies
4. Global Leadership
5. Expanded Cooperative Work
1. Codex Crop Groups
2. Capacity Building
3. Global Residue Studies
4. Global Leadership
5. Expanded Cooperative Work
   • Bilateral MOU/Research
1. Codex Crop Groups
2. Capacity Building
3. Global Residue Studies
4. Global Leadership
5. Expanded Cooperative Work
   • Bilateral MOU/Research
   • Multilateral Research
THANK YOU!

[Food logo: "food" and "too good to waste"]