

# **Minor Use Foundation, Inc.- working with Governments, Grower Groups, and Specialty Crop and Minor Use Organizations on technology tools**



Dirk C. Drost, Ph.D.  
Minor Use Foundation, Inc  
Presented May 27-28, 2020  
CA Specialty Crops Council  
MRL Harmonization Workshop

# NAFTA Minor Use Cooperative

## USA / Canada “Win-Win” Model: IR4/PMC and growers



### Objective:

- Address grower pest control needs with safe effective products in a manner that does not affect trade markets
- Conduct Joint Residue Studies and provide simultaneous submissions to both regulatory agencies (EPA and PMRA)
- Submissions reviewed and registrations approved in both countries at approximately the same time with harmonized tolerances/MRLs



# Minor Use Foundation, Inc



Minor Use Foundation

# Vision and Mission

- The organization will:
  - Establish a collaborative international approach to address MRL needs for specialty crops and minor uses
  - Implement Priorities resulting from the Global Minor Use Workshops.
  - Provide funding for research to other qualifying organizations.
  - Fund research program to obtain harmonized MRLs
  - Coordinate activities with organizations that work throughout the world
- Seek and obtain funding from Government Grants, Foundations, other non-profits, and Industry to support research and future Global Minor Use meetings
- Establish an advisory committee to provide advice
- The Minor Use Foundation, Inc
  - 501(C)(3) non-profit
  - Board Chairman, Dirk Drost
  - Board Members: Dan Kunkel, IR4; Michael Braverman, IR4, and Jason Sandhal, USDA-FAS



# Current Update

- Board established
- Initial tranche of funding raised. Further fundraising underway.
- Advisory Council – principles are agreed, implementation pending
- 2020 program being planned
  - Aligned with priorities selected by IR4 stakeholders in September 2019; Anticipate funding studies to be started in spring 2020
  - Extend work being done by IR4/PMC by adding study locations and funding to ensure sufficient trials and distribution to apply for CODEX MRLs.
  - Funding work in Asia Pacific via AAPARI; in LATAM; and in AFRICA



# Opportunities and Way Forward

- **Communication:** We must increase the effort to communicate sound science – what we do, why we do it, and the public benefits of technology. We must defend our science-based regulatory system and support and defend USDA, EPA, FDA etc. The regulatory framework facilitates innovation.
- **Collaboration:** We must find ways to work together on topics which we agree on to strengthen the agricultural systems on which society depends for safe, abundant, and economical food, feed and fiber.
- **Public/Private Partnerships:** We should understand and replicate successful models of public/private partnerships and expand/understand why they work
  - IR4, PMC, AgVet Dept of Ag, Australia, Minor Use Foundation, USDA-FAS,
  - And others..



# Wouldn't it be better to coordinate in advance, and get data from multiple countries?



North America bug



Costa Rican bugs



GAP 25% variability OK  
to combine data

90-110 g per hectare  
3-4 x times per season  
14 days apart  
7-10 days pre-harvest

Combined GAP from both  
countries

➔ Harmonized MRL

MRL works for both countries

# Communication, Coordination, Collaboration!

## Global Residue Project for Tropical Fruits

Goal: Develop process for generating residue data to establish Codex MRLs (and/or other national MRLs) via collaborative data generation projects.

Vision: Establish global network of residue research teams to collaborate in generating data for MRLs (work-sharing and cost-sharing) and to coordinate minor use programs.





# Joint Research Process

1. National Study Teams are established



2. Project crops and pesticides identified



3. Field and Laboratory GLP training

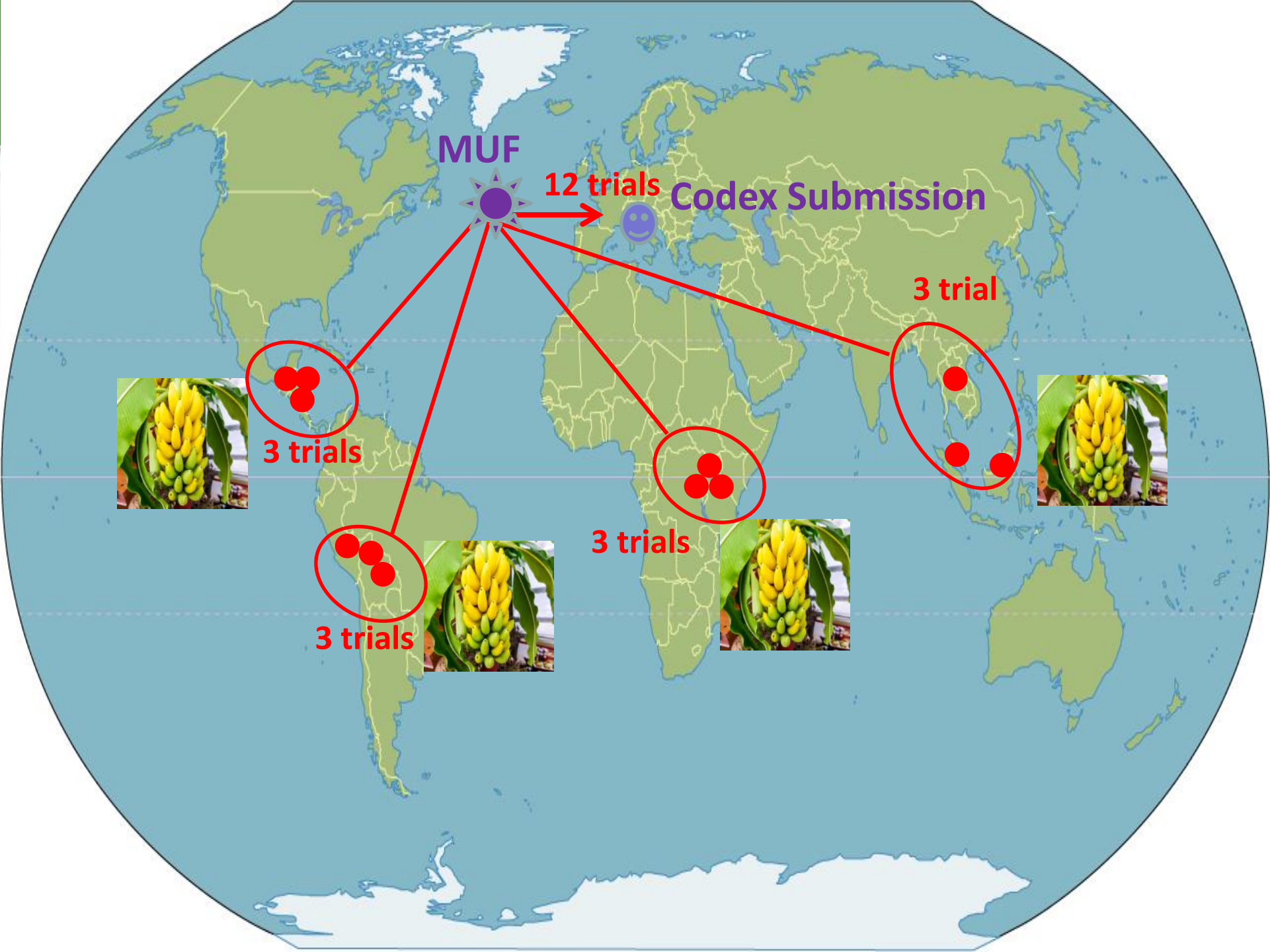


4. Conduct Actual Research



5. Data Review and Data Package Preparation for JMPR Submission





MUF

12 trials

Codex Submission

3 trial

3 trials

3 trials

3 trials



# Communication, Coordination, Collaboration Capacity, Contribution

**Minor Use a Foundation  
(Coordination/Guidance)**

**Governments/Ag. Universities  
(Staff time, lab space, local  
transportation, etc.)**



**Grower Associations  
(small plots for trials)**

**Pesticide Companies  
(registration, permits, test materials,  
methods, etc.)**



# 2019 Program Region, Country and Company Interests

WHITE=Unknown interest  
 GRAY= Not an IR-4 objective  
 YELLOW= Country interest  
 ORANGE= Company support  
 GREEN= Country interest plus company support



		LATAM				ASIA PACIFIC					AFRICA		NA	
Active Ingredient	Crop	CO	CR	PR	PA	TH	MY	IN	VN	AU	SG	GH	US	CA
SPINETORAM	DRAGON FRUIT								3					
TRIFLOXYSTROBIN/FLUOPYRIM	DRAGON FRUIT							2	3					
TRIFLOXYSTROBIN/FLUOPYRIM	PAPAYA					2	2							
PERMETHRIN	DRAGON FRUIT					3								
CLETHODIM	LETTUCE					3								

# MUF Residue trial funding to APAARI 2019

1. Spinetoram/Dragon fruit – 3 trials in Vietnam.
  2. Trifloxystrobin+ Fluopyram on dragon fruit\*# -2 field trials in Vietnam.  
1 trial in Indonesia
  3. Trifloxystrobin+ Fluopyram on papaya\*-2 trials in Malaysia  
2 trials in Thailand
  4. Picarbutrazox/ Basil\*-1 trial in Thailand
  5. Clethodim/ lettuce- 3 trials in Thailand
- Overall budget provided \$75,240

\*Current IR-4 study #MUF to also fund additional trifloxystrobin metabolite analysis for US trials



# 2020 Program Potential Country and Company Interests

WHITE=Unknown interest  
 GRAY= Not an IR-4 objective  
 YELLOW= Country interest  
 ORANGE= Company support  
 GREEN= Country interest plus company support



Country

Active Ingredient	Crop	CO	CR	PR	PA	TH	MY	IN	VN	SG	GH	AU	AU
INDOXACARB	AVOCADO	ORANGE	GREEN	ORANGE	ORANGE	ORANGE	ORANGE	ORANGE	BLACK	ORANGE	ORANGE	ORANGE	GREEN
MEFENOXAM	CACAO	YELLOW	GRAY	GRAY	YELLOW	GRAY	GRAY	GRAY	GRAY	GRAY	YELLOW	YELLOW	GRAY
FLUOPYRAM	COFFEE	GREEN	GREEN	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	YELLOW	WHITE	YELLOW	WHITE
PERMETHRIN	DRAGON FRUIT	ORANGE	ORANGE	ORANGE	ORANGE	GREEN	ORANGE	ORANGE	BLACK	ORANGE	ORANGE	ORANGE	ORANGE
PROPICONAZOLE	DRAGON FRUIT	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE
DIFENOCONAZOLE	GRAPEFRUIT (POST HARV)	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	YELLOW	WHITE	WHITE	WHITE
DIFENOCONAZOLE	LEMON (POST HARVEST)	WHITE	WHITE	WHITE	WHITE	YELLOW	WHITE	YELLOW	YELLOW	YELLOW	WHITE	WHITE	WHITE
CLOFENTEZINE	LYCHEE	GRAY	GRAY	GRAY	GRAY	YELLOW	GRAY	GRAY	YELLOW	GRAY	GRAY	GRAY	GRAY
DIFENOCONAZOLE	ORANGE (POST HARVEST)	WHITE	WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	YELLOW	YELLOW	WHITE	WHITE	WHITE
BIFENAZATE	PEPPER (GH)	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE
AZOXYSTROBIN	POMEGRANATE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	WHITE	YELLOW	WHITE
CHLORANTRANILIPROLE	RICE	ORANGE	ORANGE	ORANGE	ORANGE	GREEN	ORANGE	ORANGE	GREEN	GREEN	GREEN	GREEN	ORANGE
PYDIFLUMETOFEN	STRAWBERRY (GH)	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE

# Potential MUF Residue Trial funding 2020

1. Indoxacarb/Avocado\*- Australia (Hort Innovations 2 trials), Costa Rica (2)
2. Permethrin/Dragon fruit\*- Thailand (3 trials)
3. Chlorantraniliprole/Rice\*- Thailand, Vietnam, Senegal, Ghana, Australia (5 trials)

\*Current IR-4 study

Proposed Budget approximately \$200,000



# Contact Information

- Dirk Drost, Ph.D., Board Chairman, Minor Use Foundation, Inc
  - [dirk.drost@minorusefoundation.org](mailto:dirk.drost@minorusefoundation.org)
  - +1 336 209 5398
  - [www.minorusefoundation.org](http://www.minorusefoundation.org)
- Credits: Thank you to Dr. Michael Braverman, IR4; Dr. Dan Kunkel, IR4; Dr Jason Sandhal, USDA-FAS; for their reference materials and inputs.

