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附件 1 詳細議程

To access the full agenda with speakers and greater detail, please visit **minorusefoundation.org/gmus-4-schedule/** or scan the code.

February 5, Monday: Evening Reception

6-9 pm: Welcome and Networking

February 6, Tuesday: Day 1
Understanding The Changing Landscape: Current Opportunities & Challenges for The Trade Of Specialty Crops

8 AM: Registration Opens

8:30-8:45 AM: Opening

8:45-10:00 AM: Panel – MUF: Path to GMUS-IV & What Are Our Expected Outcomes?

10-10:15 AM: Coffee Break

10:15-11:45 AM: Opening Panel Keynotes

11:45 AM-12:45 PM: Lunch

12:45-2:05 PM: Panel – An Evolving Grower Community: Adapting to New Trade & Consumer Challenges

2:05-3:25 PM: Panel – Creative Approaches to The Minor Use "Problem": Pragmatic Public Sector Solutions

3:25-3:45 PM: Afternoon Coffee Break

3:45-4:45 PM: Break Out Groups

4:45-5:15 PM: Readouts, Discussion, Next Steps, & Closing

5:15-7 PM: USDA Side Event: Risk Communication Dialogue, Lessons, & Planning

February 7, Wednesday: Day 2
Prioritizing Amidst Uncertainty: Exploring Potential Solutions

9-10 AM: MUF Prioritization & Project Selection

10-10:15 AM: Coffee Break

10:15-11 AM: Small Group Discussion – Minor Use Foundation Prioritization Process & Feedback

11 am-12:00 PM: Incorporate Feedback to MUF Priorities/Workplan

12-1 PM: Lunch

1-1:30 PM: Keynote Speech - Mis/Disinformation about Pesticides

1:30-1:45 PM: Colombia Case Study

1:45-3:05 PM: The Future of Crop Protection in a Changing Climate

3:05-3:25 PM: Afternoon Coffee Break

3:25-4:45 PM: The Emergence of Biocontrols: Environmental Benefits & Regulatory Hurdles

4:45-5 PM: Summary of Day 2 and Next Steps

February 8, Thursday: Day 3
Making Meaning for The Future: How Can We Move Forward Together?

9-10:25 AM: Panel – An Evolving Regulatory Landscape: International Perspectives

10:25-11:45 AM: International Collaboration for Trade Facilitative Outcomes: Examples and Ideas

11:45 AM-12:05 PM: Coffee Break

12:05-12:45 PM: Keynote Speech – The Importance of Science to Inform Agricultural Policy

12:45-1:45 PM: Lunch

1:45-2:45 PM: Group Discussion – What Solutions Have We Identified What Are The Next Steps?

2:45-3:05 PM: Afternoon Coffee Break

3:05-3:30 PM: Closing Remarks

February 9, Friday: Valencia Field Tour

- **8 am:** Depart Madrid via high-speed train to Valencia
- **10 am:** Arrive in Valencia
- **11 am:** Tour of citrus, avocado, kiwi, persimmon, pomegranate fields. See local growers and learn about new technologies in specialty crop cultivation in the Spanish context.
- **1 pm:** Conversation with growers and local extension agents about agricultural research initiatives
- **2 pm:** Lunch
- **3:30 pm:** Tour of Parque L'Albufera including rice fields
- **6 pm:** Depart Valencia via high-speed train back to Madrid
- **8 pm:** Arrive in Madrid, local transport back to hotel

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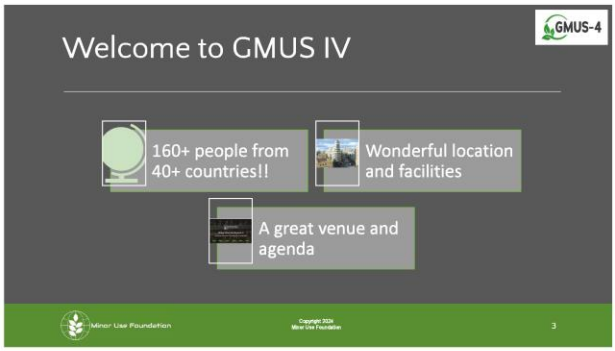
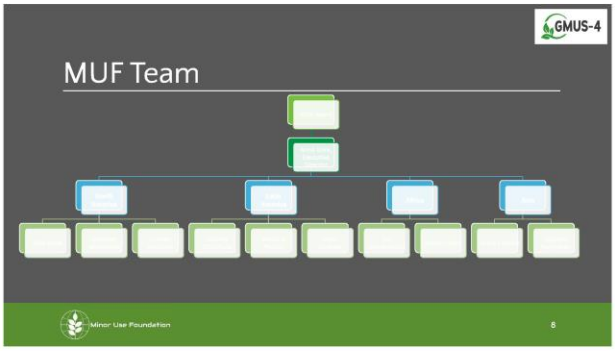
附件 3MUF: Path To GMUS-IV And What Are Our Expected Outcomes?





Next speakers

- Jerry Baron, Ph.D — historical context of Foundation and partnerships with IR4
- Dan Kunkel, Ph.D – accomplishments/highlights of prior Global Minor Use Summits
- Michael Braverman, Ph.D – challenges/accomplishments of international data generation projects
- Jason Sandahl — growth and success of MRL regulatory capacity building program at USDA-FAS
- Alan Norden – opportunities in future regulatory partnerships
- Q&A to follow moderated by Dirk Drost

Jerry Baron, Ph.D.
Executive Director of IR-4 Project
Chair Emertis of Minor Use Foundation

Additional Welcome

Why am I here?

- Director of IR-4, the world's first and largest Minor Use Program
  - >IR-4 celebrated 60 year anniversary in 2023.
  - >Data to supported 2300 registrations
- I am passionate about horticulture pest management
  - >Spent the last 42 years working in this area
  - >38 years with IR-4
- Chair of First Global Minor Use Summit in 2007
- Led establishment of the Minor Use Foundation in 2018

We have come a long way

- Mid-1990's
  - >Cooperation between IR-4 and Germany
  - >Joint work with IR-4 and Canada Hort. Council
  - >IR-4 consult with Canada govt.→PMC (1998)
- Early 2000's
  - >Significant global interest in learning the IR-4 model
  - >USDA-FAS and IR-4 discovered each other
- Shared vision with EPA of a Global Summit to bring all together in central location to help solve Minor Use Problem
  - >First Global Minor Use Summit at UN-FAO HQ December 2007

We have come a long way

- GMUS-1 set the stage for global cooperation
- Outcomes:
  - >Crop Grouping,
  - >Zoning,
  - >Data Sharing
  - >Capacity Development
  - >Minor Use Foundation

Establishment of Minor Use Foundation

- Success from 1st GMUS→More interest in cooperation
  - >IR-4 did not have adequate resources to lead
  - >USDA provided funds to IR-4 to establish MUF
- MUF chartered in 2017/approved in 2018 as Not-For-Profit organization
  - >Limited resources-All volunteer work by mostly IR-4
  - >Pilot projects and capacity building
- I stepped down as Chair in 2019→Dirk Drost took over.
  - >Passion for the solving the issue
  - >Vision to grow the organization

Final Thoughts

- Proud of what has been accomplished; how original vision has turned into reality
- MUF Foundation is in good hands
  - >Anna Gore—Shared passion
- At 1st GMUS the following was shared-still relevant today

Henry Ford quote ***-"Coming together is the beginning. Keeping together is progress. Working together is success."***

Thank You!


Daniel Kunkel,PhD
Exec. Treasurer MUF
Why do I volunteer?
I come from the farm…
I know the importance of the work – nearly 30 years at IR-4
Support from my employer
Feed the growing population
Minor Use Foundation
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GMUS-4
Global Minor Use Summits I and II
2007 and 2012 – FAO HQ in Rome
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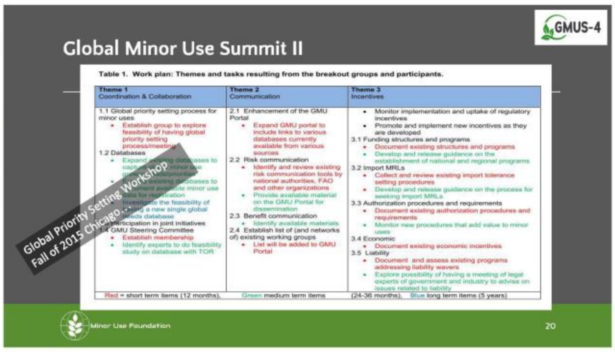
Action Items from GMUS I
Minor Use Collaborations MRL Zoning Codex
Feeds Issues Facilitate
Efficacy Residue Commodity FAO
Data Establish Pest Needs
Harmonize
National Global Crop Groups Portal
Sharing Summits Food
Program OECD Minor Use Communicate Revise Management
Minor Use Foundation


GMUS-4
Global Minor Use Summit II
Table 1. Work plan: Themes and tasks resulting from the breakout groups and participants.
Theme 1 Coordination & Collaboration
Theme 2 Communication
Theme 3 Incentives
Global Priority Setting Workshop
Fall of 2015 Chicago
Minor Use Foundation
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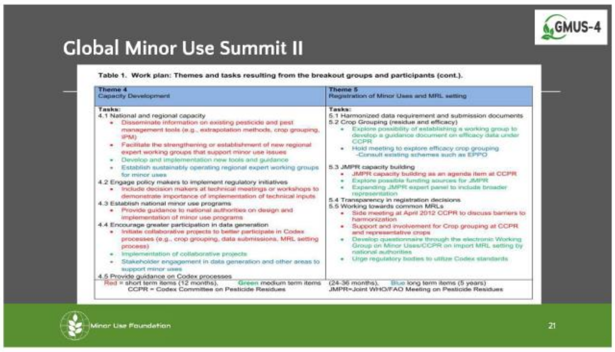
GMUS-4
Global Minor Use Summit II
Table 1. Work plan: Themes and tasks resulting from the breakout groups and participants (cont.).
Theme 4 Capacity Development
Theme 5 Registration of Minor Uses and MRL setting
Minor Use Foundation
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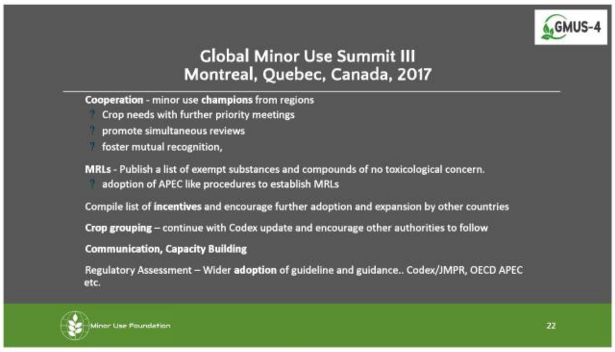
GMUS-4
Global Minor Use Summit III
Montreal, Quebec, Canada, 2017
Cooperation - minor use champions from regions
Crop needs with further priority meetings
promote simultaneous reviews
foster mutual recognition,
MRLs - Publish a list of exempt substances and compounds of no toxicological concern.
adoption of APEC like procedures to establish MRLs
Compile list of incentives and encourage further adoption and expansion by other countries
Crop grouping – continue with Codex update and encourage other authorities to follow
Communication, Capacity Building
Regulatory Assessment – Wider adoption of guideline and guidance.. Codex/JMPR, OECD APEC etc.
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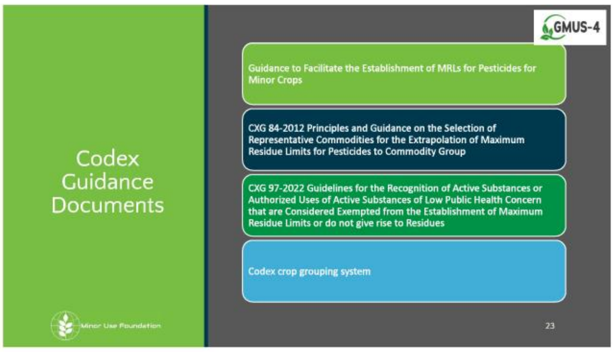
GMUS-4
Codex Guidance Documents
Guidance to Facilitate the Establishment of MRLs for Pesticides for Minor Crops
CXG 84-2012 Principles and Guidance on the Selection of Representative Commodities for the Extrapolation of Maximum Residue Limits for Pesticides to Commodity Group
CXG 97-2022 Guidelines for the Recognition of Active Substances or Authorized Uses of Active Substances of Low Public Health Concern that are Considered Exempted from the Establishment of Maximum Residue Limits or do not give rise to Residues
Codex crop grouping system
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GMUS-4
Accomplishments examples
Codex Electronic Working Group on Minor Uses and Specialty Crops 2009-2016…
Defining Minor Uses – failed However…..
2015 Codex - Guidance to Facilitate the Establishment of MRLs for Pesticides for Minor Crops – Chaired by France
based on GEMS Food Cluster data, based on consumption levels
CXG 84-2012 Principles and Guidance on the Selection of Representative Commodities for the Extrapolation of Maximum Residue Limits for Pesticides to Commodity Group
Update to EPA and PMRA crop grouping schemes (and was a harmonized process).
US and NLCXG 97-2022 Guidelines for the Recognition of Active Substances or Authorized Uses of Active Substances of Low Public Health Concern that are Considered Exempted from the Establishment of Maximum Residue Limits or do not give rise to Residues. Chile.
# of CXLs established
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GMUS-4

Accomplishments examples

OECD Expert Group on Minor Uses – 2007

- Report of the OECD Pesticide Risk Reduction Group Seminar on Minor Uses and Pesticide Risk Reduction
  {Series on Pesticides, No. 26 - ENV/JM/MONO(2005)4}
- Survey of the Pesticide Risk Reduction Steering Group on Minor Uses of Pesticides
  {Series on Pesticides, No. 38 - ENV/JM/MONO(2007)12}
- Publication of the OECD Guidance Document on Defining Minor Uses of Pesticides
  {Series on Pesticides, No. 49 - ENV/JM/MONO(2009)39}
- Guidance Document on Regulatory Incentives for the Registration of Pesticide Minor Uses
  {Series on Pesticides, No. 63 - ENV/JM/MONO(2011)16}
- OECD Guidance Document on addressing minor uses Series on Pesticides No. 113 - 2023

GMUS-4

And many other accomplisments...

My vision for the future

- is those of you here.
- Many of the faces we have seen at other summits and
- many new faces.
- Understand the importance of this work to support growers and provide nutritious food to a growing population.

Thank you.

Michael Braverman, Ph.D.
Manager, IR-4 Biopesticide, Organic Support and International Capacity Building.
Member BoD, Minor Use Foundation

Minor Use Foundation

Challenges and Accomplishments of International Data Generation Projects

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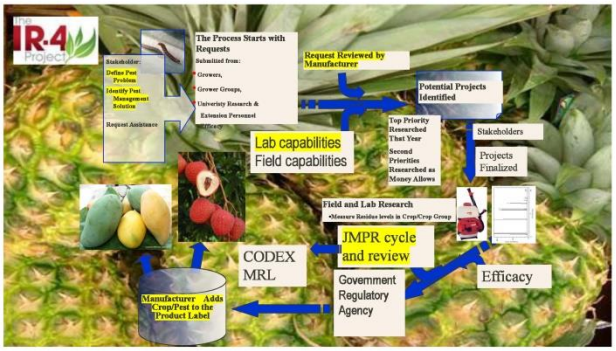

Calibration of a sprayer you have no experience with.




IR-4 Project

Calibrate a brand new sprayer?

IR-4 Project

First GLP trial Malaysia - >99% of the target application rate

IR-4 Project

Vietnam- Changing from observer to participant STDF.

IR-4 Project

Vietnam –Reducing sample size.

Training Video – Global Tomato Study

http://www.youtube.com/watch?v=o23QUBJm7rc

Dirk: Michael, we have funding for a regional workshop, but we need to complete it in a few months.

What have we accomplished?

Large number of field and laboratory scientists trained. Implementing GLP quality to pass JMPR review. Instilling confidence and promoting self actualization in developing countries.

Establishing new CODEX and regional MRLs and mitigating residues to meet existing MRLs.

Development of regional and global needs based project prioritization systems.

Biopesticide regulatory infrastructure and harmonization.

Utilizing existing data sets/archives and adding a few trials to establish new MRLs.

Import MRL exchange program. Helps US exports and international imports.

Gaining a better understanding of JMPR reviews.

Establishment of global networks and cooperative partners.

How to increase efficiency?

Residue studies- One study one MRL for one product on one crop- SLOW.

Crop grouping- greatly expand MRL, but will registrant label whole group?

Trial stacking.

All the above depend on developing new CODEX MRLs difficult to increase efficiency.

Residue mitigation- Increase the PHI by replacing last spray with biopesticide.

Why do I volunteer to the MUF?

I spent a year on a Fulbright Scholarship to Thailand during graduate school. Wouldn't it be nice to add an international focus.

I enjoy different cultures, food, and people.

I love a challenge.

Impacting global trade benefiting US growers and cooperators.

I learned in 1st grade that the most essential things in life are food, water and shelter. There is nothing more satisfying than making the world a better place by improving nutrition through the availability of food.

Thank You!

mbrave@sebs.rutgers.edu

Jason F. Sandahl, PhD
CEO
Ag Aligned Global, LLC

Why am I passionate about the Minor Use Foundation?

40

Board Member: Jason Sandahl

Regulatory Capacity Building

- Regulatory alignment is essential for developing countries to gain access to new products
- USDA's Foreign Agricultural Service has prioritized capacity building efforts in the area of pesticide regulatory systems
- The Minor Use Foundation directly impacts and improves livelihoods of farmers

Minor Use Foundation 41

Board Member: Jason Sandahl

Board Member: Jason Sandahl

Board Member: Jason Sandahl

Alan Norden
Secretary
Australia

Why I volunteer?

Minor Use Foundation 45

Board Member: Alan Norden

- Joined MUF mid 2020
- All started for me 30 years ago – "*thrown in the deep end*"
- Assessing minor use applications in the Australian regulatory agency
- Little experience or knowledge
- Wide diversity of crops, lots of needs, very little data
- Spent a lot of time visiting and meeting with affected growers and agricultural extension staff etc. learning needs and practices
- Shared our challenges, built trust, respect, and friendships

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Board Member: Alan Norden

- Minor use successes come from partnerships, collaboration and generally helping one another - working together to deliver solutions
- Utilising expert judgement, international data and extrapolation
- Most minor use needs are very safe, represent less risk than already approved uses BUT are simply 'not assessed'
- Thousands of safe minor uses waiting to be realised
- Does some Government legislation and our general approach to enabling authorisations make it unnecessarily difficult?
- Are we maximising our assessments in major crops to their full extent?

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Board Member: Alan Norden

- In a global setting there has been much use of the words like 'harmonization', 'data sharing', 'reduced duplication', 'mutual recognition'
- Some progress has been made, but not close to what our predecessors envisaged
- Opportunity exists to ask why, what issues are preventing this and how do we address them
- Looking for outcomes that have long term benefits and facilitate minor use authorisations
- Looking for the "game-changers" (new approaches, models, tools, etc.)
- Your challenge at GMUS4 is to help identify and deliver those solutions

Minor Use Foundation 48


Thank you!
Miner Lee Foundation
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附件 4-1 Catalyzing safe agri-food trade through partnerships and innovation

STDF STANDARDS and TRADE DEVELOPMENT FACILITY

Catalysing safe agri-food trade through partnerships and innovation

Global Minor Use Summit IV: Leveraging Agricultural Technology for a Growing World

5-9 February 2024
Madrid, Spain

Marlynne Hopper
STDF Secretariat

6 February 2024

Facilitating safe trade in a changing global landscape

- Pandemic, war, global insecurity
- Rise in price of food, fuel, agriculture inputs, etc.
- Growing food insecurity
- Trade costs in agriculture much higher than manufacturing
- Growth in agri-food value chains increasing economic inter-dependency
- Concerns about biodiversity, environment, climate change, as well as food loss and waste
- Call for food systems transformation and One Health approaches

STDF's global partnership to facilitate safe trade

Global network of organizations involved in SPS capacity development

Knowledge work

Grants for innovative and collaborative projects that facilitate safe trade

SUSTAINABLE ECONOMIC GROWTH, POVERTY REDUCTION and FOOD SECURITY

Piloting a new approach to address pesticide MRL challenges for minor-use crops: STDF regional projects (2012-17)

Innovation and partnerships in Africa, Asia and Latin America

- Government authorities (food safety, plant health, agriculture, environment)
- Regional organizations (AU-IBAR, ASEAN, IICA)
- Farmers and industry (CropLife, Dow, Syngenta, Valent/Sumitomo)
- International partners: IR-4 (Rutgers University), USDA, FAO/WHO JMPR, etc.

Regional MRL projects: Delivering results, influencing change

Results

- 160+ government officials with improved knowledge and skills
- Residue studies and data for 10+ Codex MRLs
- Developing countries more active in Codex
- Reduced-risk pesticides registered in 18+ countries
- New Codex pesticide MRLs for minor-use crops

Influencing change

- Global Minor Use Foundation (2015)
- Regional harmonization
- Joint residue projects launched in 13+ developing countries
- STDF biopesticide pilot projects

Regional MRL projects: Key lessons

- Effective collaboration needs clarity on roles and mutual expectations
- Balancing different interests and priorities across organizations and partners
- Private sector (growers, exporters, associations) should be involved from the design stage
- Adapting to local context
- Openness to change: identify, nurture and support "Champions" to drive change and encourage sustainability

How can biopesticides be used to address pesticide residue issues affecting trade?

STDF regional projects in Asia (APAARI), Southern Africa (ICGEB), Latin America (IICA)

- Building on the results and lessons of the STDF regional MRL projects
- Testing solutions to use biopesticides alongside conventional pesticides
- Spotlight on diverse issues related to legislation, harmonization, biopesticide production, etc.
- Linking to STDF knowledge topics (e.g. good regulatory practice, gender mainstreaming) for cross-fertilization and learning
- Expanding and deepening partnerships
- Facilitating regional dialogue, learning and outreach

Facilitating safe trade in a complex and changing world: What have we learned?

1. Diverse stakeholders across government authorities, the private sector and academia all have a vital role to play
2. Safe trade challenges are affected by, and intertwined with, many other challenges (economic, political, social, cultural, legal, etc.) – need for strategic thinking and approaches
3. Integrating cross-cutting issues improves results, impacts and sustainability
4. Innovation, learning and change management are key

Looking to the future, learning from the past: What's needed?

- Global approaches tailored to local needs
- Urgency, openness and readiness for change
- Collaboration to connect, learn and leverage our collective strengths and expertise
- Moving from fragmented pilots to scale-up innovative solutions
- Financing and incentives, including to help those usually left behind
- Improved monitoring, evaluation and learning

STDF

Find out more

Sign up for STDF e-news

Use STDF knowledge products, videos, etc.

Apply for STDF funding

Attend STDF events and webinars

Share your stories on safe trade solutions via STDF's network

www.standardsfacility.org

STDFSecretariat@wto.org

STDF

STDF development partners

Australian Aid

Canada

Federal Ministry of Food and Agriculture

Federal Ministry for Economic Cooperation and Development

Irish Aid
Rialtas na hÉireann
Government of Ireland

Sweden
Sverige

USAID

USDA

U.S. FOOD & DRUG ADMINISTRATION

STDF

附件 4-2 Journey in Minor Uses and Specialty crops – An African perspective

Journey in Minor Uses and Specialty crops
- An African perspective

Presentation made during the Global Minor Use Summit (5th to 9th February 2024)

6th February 2024

Lucy Namu
Chief Manager – Laboratories
Email: namul@kenas.go.ke

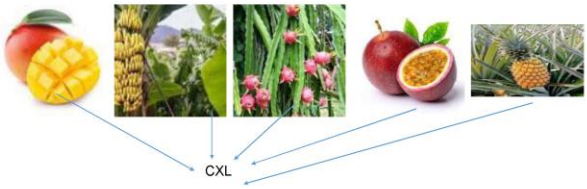
Progress in Minor Crops

- Codex Classification of Food and Feed commodities…

√2012

- Guidelines to facilitate establishment of MRLs for minor uses and specialty crops-2015
  - Aid in data generation

Joint data submission



CXL

✓Collaborative data generation

✓One MRL, multiple registrations, multiple countries

Supporting further positive outcomes:

Top Leadership	Crop protection Industry	Laboratories	MUF

• Top level meetings – institutional commitment
• Regional meetings with Industry/Private sector
  • Planning
  • Coordination
• Funding for planned actions
	• Consideration of products for minor crops
	• Coordinated activities within region – technical
	• Product availability
		• Regional coordination
		  • Western
		  • Eastern
		  • Southern
		• Cluster centres of excellence
		• Training and mentorship programs
			• Support regional prioritization process

Trade challenges

- Crop grouping with "orphan crops"
  - CCPR54 – case of okra

Overcoming the challenges

Field trial data generation for okra

- Generation of similar use patter for other group – Legume vegetables? Egg plant?
- Comparative data – use of data simulation from other use patterns?
- Data modelling? **Wider flexibility in crops grouping principles**

Concerns with risk analysis approaches from some regions

- MRL elaboration process
  - Environmental issues (CCPR54)
- Hazard based criterion
  - Risk management decision: withdrawal of pesticides (https://www.pcpb.go.ke/test-blocks/)
- Corporate Sustainability Reporting + GHG issues

Sustainability considerations

- Data sharing – common database - regional
- Wider data acceptance – OECD GLP MAD Scheme
  - ✓Wide use of OECD guidelines/principles
  - ✓Pilot country approaches post-STDF projects
- Regional Centre of excellence for training
  - Mentorship guidance for MRL data generation
  - More countries
- Focus support in wider minor crop databases

Thank you! Shukran! Merci! Asante sana!

Stay informed

KENAS.go.ke

@KENAS.go.ke

Company/KENAS.go.ke

Kenya-Accreditation-Service

KENAS Delivering Trust

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附件 4-3 Perspectives on trade and MRLs

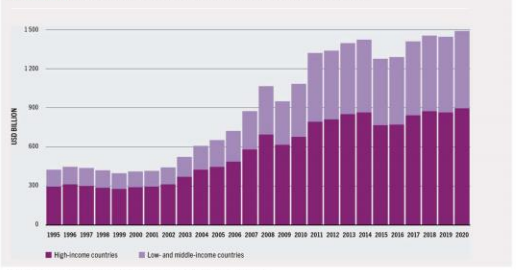
Perspectives on trade and MRLs

Global Minor Use Summit IV
February 2024, Madrid
Gord Kurbis
Senior Associate

T. Bjornson & Associates
Public Affairs Consulting

Agriculture and food trade has tripled in two decades

FIGURE 1.2 THE EVOLUTION OF GLOBAL FOOD AND AGRICULTURAL TRADE, 1995–2020



Source: *The State of Agricultural Commodity Markets, FAO, 2022*

Growth in agricultural trade more evenly distributed

"Emerging economies have become important players and low-income countries are better integrated into global markets."

The State of Agricultural of Commodity Markets, FAO, 2022

Increasing complexity of trade (products, origins, volume)
=
Increased importance of contending with MRL issues

Source: Chatham House, 'resourcetrade.earth', http://resourcetrade.earth/

Global trade liberalization: tariffs decreasing

Number of RTAs notified and currently in force

The biggest "users" of RTAs

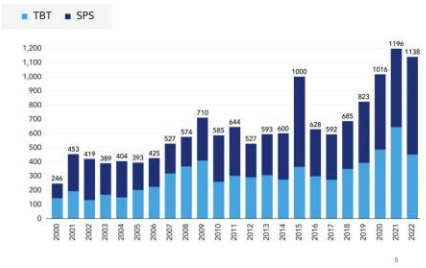
Source: WTO, https://www.wto.org/english/tratop_e/region_e/region_e.htm

Tariff reductions correlated with increases in non-tariff trade barriers

"…yearly use of certain barriers has grown from fewer than 300 measures in 2000 to more than 1,000 in 2020."

Source: Asia Pacific Foundation of Canada; ePing SPS & TBT Platform, WTO

SPS and TBT notifications per year in the Asia Pacific, 2000-23

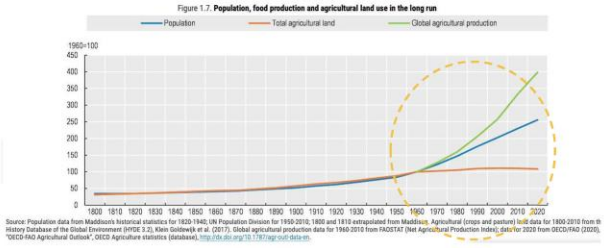


Taking Stock of what's changed since last Global Minor Use Summit in 2017

GMUS III, 2017 Montreal	GMUS IV, 2024 Madrid
If an MRL is missing, it is not the result of deliberate removal	• MRLs will now be removed for the first time to deliberately curtail pesticide use by trading partners
Pesticide misinformation, disinformation present among consumers	• Misinformation, disinformation present among consumers but now also informing government policy decisions
	• Threat that ideological concepts of sustainability will enter trade rules and affect pesticide use ('Sustainable Trade')
Farm, agriculture groups caution production consequences if pesticides taken away	• Production problems now occurring
	• More value chains are aware of MRL issues, voluntarily restricting approved uses to ensure compliance

Food security, sustainability implications from anti-innovation activism

Figure 1.7. **Population, food production and agricultural land use in the long run**



Source: Population data from Maddison's historical statistics for 1820-1940; UN Population Division for 1950-2010; 1800 and 1810 extrapolated from Maddison. Agricultural (crops and pasture) land data for 1800-2010 from th History Database of the Global Environment (HYDE 3.2), Klein Goldewijk et al. (2017). Global agricultural production data for 1960-2010 from FAOSTAT (Net Agricultural Production Index); data for 2020 from OECD/FAO (2020), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), http://dx.doi.org/10.1787/agr-outl-data-en.

Suggestions

Consideration is being given to the development of (a) a broader consortium of ag/trade groups on sustainable trade, and (b) a set of principles to advance. Initial principles for discussion/improvement are:

- Policymakers should avoid temptations to focus on specific practices or technologies, instead focus on outcomes (e.g., improvements to soil, air, and water quality).
- Any sustainable trade measures must be aligned with existing WTO principles (least-trade-restrictive, freer, competitive, predictable, etc.).
- Measures that reduce productivity per unit of land must place the onus on proponents to demonstrate that these will not have the unintended consequence of further encroachment of farmland into ecologically sensitive areas.
- Measures should not be considered that increase global prices for staple foods. If mitigation is proposed (e.g., by reducing food loss/waste, changing diets), the onus must be on proponents to demonstrate that plans are achievable.

附件 5-1 Slow Progress on MRL Innovation

Slow Progress on MRL Innovation

James R. Cranney, Jr.
California Citrus Quality Council
Minor Crop Farmer Alliance

Minor Crop Farmer Alliance

- Founded in 1991
- Advocates for use of sound science in government minor-use pesticide policies
- Comment on pesticide policies
- Meet with government officials to communicate challenges
- More than 500 plant varieties nationally
- More than $60 billion in revenue nationally
- Approximately 40 percent of all farm revenue in United States

Minor Use MRL Challenges

- Missing MRLs
- Different MRLs in different markets
- No channels of trade provisions when MRLs are changed
- Third party MRLs; not justified by science
- Overly conservative sanctions for MRL violations
- Time consuming process for establishing MRLs
- Inexplicable residue testing policies
- Missing residue trials; insufficient data
- Reluctance by some trading partners to set MRLs for generic compounds

The Life of a Grower…

- Two containers held for an MRL violation
- The "detected" active ingredient (AI) is not registered in the United States
- Trading partner refused to retest
- Two containers returned to California – total loss of $80,000
- Packer retested the containers for the "detected" AI
- Both containers tested negative on return

Another Case…

- Trading partner said they detected residue of 0.03 ppm and the MRL was 0.01 ppm
- The packer conducted a residue test before shipment which showed no residues for the pesticide
- The trading partner would not share the test results and would not acknowledge the pre-shipment test
- The container was rejected.
- The importer was fined $2,000 for the violation; progressive fines for additional violations

Potential Solution for MRL Progress

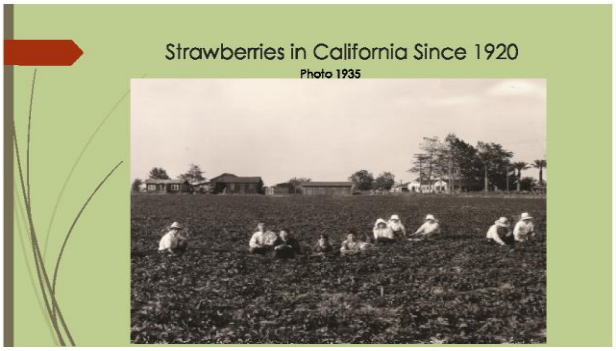
- Need more open dialogue and willingness to address concerns
- Need more transparency about testing and testing results
- Technical trade missions could facilitate greater understanding and more cooperation with trading partners

MCFA

James R. Cranney, Jr.
President
California Citrus Quality Council
853 Lincoln Way, Suite 206
Auburn, CA 95603

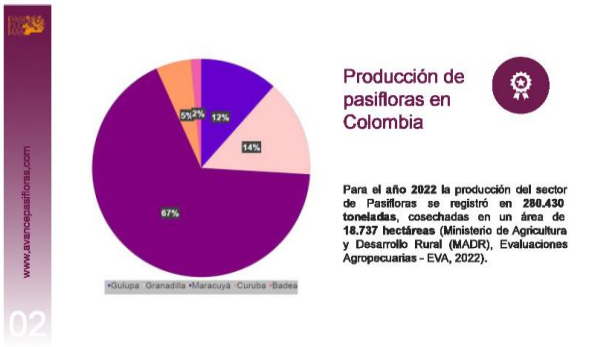
Tel: (530) 885-1894
Mobile: (530) 906-6546
Jcranney@cqcc.org

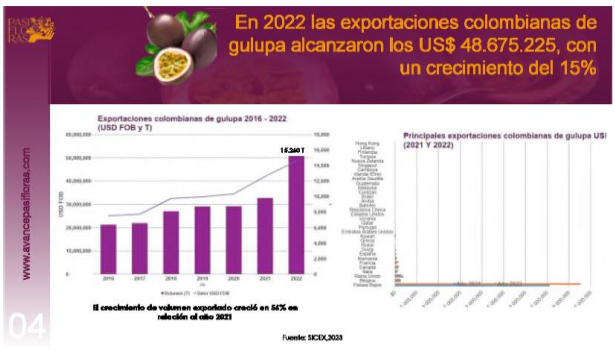
附件 5-2 Nagata Brothers Farms(美國加州草莓農場)



Thank You

附件 5-3 Pasifloras(哥倫比亞百香果產業)

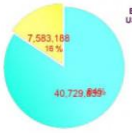




PARTICIPACION DEL GREMIO EN EXPORTACIONES DE PASIFLORAS

US$ FOBENE-DIC/2022

TOTAL EXPORTADO US$ 48.675.225



AVANCE PASIFLORAS OTROS

KILOS EXPORTADOS ENE-DIC/2022

TOTAL EXPORTADO 15.259.774 KILOS

AVANCE PASIFLORAS OTROS

Sin embargo, en volumen, las exportaciones crecieron en un **56%**, con respecto al año 2021.

Fuente: Siex (2023)

05

Objetivos Estratégicos

- Apertura de la gulupa al mercado de EEUU.
- Buscar alternativas de protección de cultivos de pasifloras, que reemplacen las actuales de síntesis química
- Gestionar el registro de más moléculas químicas ante el ICA para uso en Pasifloras (dando prioridad a la gulupa, aunque lo ideal es tramitar el registro para Pasifloras).
- Generar campañas que incentiven el consumo de Gulupa en Europa (comenzando por Alemania) y posteriormente en EEUU.
- Realizar un programa de investigación y desarrollo tecnológico relacionado al cultivo de las Pasifloras.

Impacto Social

El cultivo de Pasifloras, especialmente de gulupa, genera **4.284 empleos directos**, en **837 has** cultivadas por los Asociados de Avance Pasifloras. La mano de obra es familiar.

En zonas de producción especializada, se cuenta con un promedio de 4,2 trabajadores directos por hectárea/semana; en la labor de cosecha se prefiere la mano de obra femenina por lo cual la participación de la mujer rural en la producción de Gulupa es de un 50% aproximadamente.

02

PROBLEMÁTICA SANITARIA DE LAS PASIFLORAS

Las principales enfermedades y plagas del cultivo de las Pasifloras, con presencia en cada una de las zonas productoras corresponden a:

- ✔ Roña-Chancro por *Cladosporium cladosporioides*
- ✔ Antracnosis en poscosecha: por *Colletotrichum boninense*
- ✔ Gota por *Phytophthora nicotianae*
- ✔ Secadera por *Fusarium oxysporum* y *Fusarium solani*
- ✔ Mancha de aceite por *Xanthomonas axonopodis*
- ✔ Virosis por un *potyvirus SMV (Soybean Mosaic Virus)*
- ✔ *Trips*
- ✔ *Mosca de la Fruta y del Ovario.*

MANEJO DEL PRODUCTOR

Se emplea un manejo enfocado en Buenas Prácticas Agrícolas para el control de estos problemas fitosanitarios, respondiendo los lineamientos del orden nacional- ICA y las normas internacionales, especialmente, Globalgap y Rainforest.

Aumento de Controles Oficiales en Pasifloras en la Unión Europea

AVANCE PASIFLORAS COLOMBIA

ICA

Proyecto de reglamento que modifica el Reglamento2019/1973delaComisión,relativo al aumento temporal de los controles oficiales y a las medidas de emergencia que regulan la entrada en la Unión de determinadas mercancías procedentes de terceros países.

Este propone incrementar la frecuencia de los controles oficiales en la UE de las pasifloras provenientes de Colombia–frecuencia fijada en el 10% de los envíos que entren en la UE-.S bien este ya fue aprobado por los estados miembros, aún debe ser publicado en el Diario Oficial de la UE para ser vinculante. La regulación debe ser traducida primero en los idiomas oficiales de la UE para ser publicada. Este proyecto, junto con su anexo, se encuentra disponible en el siguiente enlace: https://ec.europa.eu/transparency/comitology-register/screen/documents/085066/1/consult?lang=a

Los Desafíos

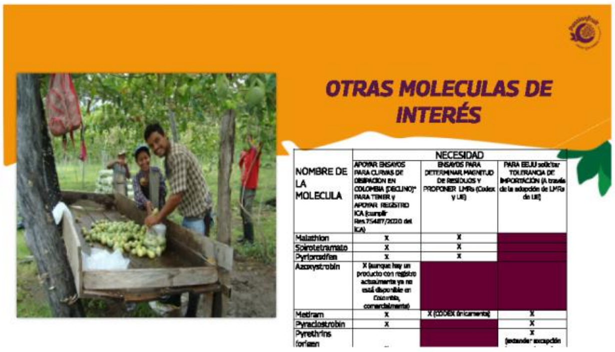
Plagas-Artrópodos

- ✔ Validación tecnológica con moléculas permitidas para las pasifloras y ensayos que incluyan enemigos naturales.
- ✔ Permisos de importación de parasitoides para el control de *Nezara viridula* y *Pseudococcidae* que son producidos por Koppert.
- ✔ Cría de enemigos naturales como *Anagyrus vladimiri*.
- ✔ Herramientas de manejo para Dasiops del botón floral.

Enfermedades

- ✔ Estudio de vectores de *Tymovirus* y *Potyvirus*.
- ✔ Laboratorios para secuenciamiento y detección de virus principalmente a un costo por el servicio razonable.
- ✔ Manejo de *Phytophthora sp.* y mancha de aceite.
- ✔ Pruebas de tolerancia a *F. oxysporum* de nuevos patrones de pasifloras y revisión si hay generación de mucílago en las raíces como ocurre en *Passiflora maliformis*.

NOMBRE DE LA MOLECULA	NECESIDAD	
	APOYAR ENSAYOS PARA CURVAS DE DISIPACION EN COLOMBIA (DECLINO)* PARA MANTENER EL REGISTRO ICA (cumplir Res.75487/2020 del ICA)	PARA EEUU solicitar TOLERANCIA DE IMPORTACIÓN (A través de la adopción de LMRs de UE)
Difenoconazole	X	X
Tebuconazole	X	X
Trifloxystrobin	X	X
Myclobutanil	X	X
Propineb (ditiocarbamato)	X	X
Prochloraz	X	X (aunque va a bajar es mejor que 0)
Abamectina	X	
Spinosad	X	
Spinetoram	X	



NOMBRE DE LA MOLECULA	NECESIDAD		
	APOYAR ENSAYOS PARA CURVAS DE DISIPACION EN COLOMBIA (DECLINO)* PARA TENER y APOYAR REGISTRO ICA (cumplir Res.75487/2020 del ICA)	ENSAYOS PARA DETERMINAR MAGNITUD DE RESIDUOS Y PROPONER LMRs (Codex y UE)	PARA EEUU solicitar TOLERANCIA DE IMPORTACIÓN (A través de la adopción de LMRs de UE)
Malathion	X	X	
Spirotetramato	X	X	
Pyriproxifen	X	X	
Azoxystrobin	X (aunque hay un producto con registro actualmente ya no está disponible en Colombia, comercialmente)		
Metiram	X	X (CODEX únicamente)	X
Pyraclostrobin	X		X
Pyrethrins (origen			X (extender excepción


STDF FONDO PARA LA APLICACIÓN de NORMAS y el FOMENTO del COMERCIO
REDUCCIÓN DE LOS RESIDUOS DE PLAGUICIDAS EN AMÉRICA LATINA MEDIANTE EL USO DE BIOPLAGUICIDAS
PARTICIPACION DEL PROYECTO STDF
Mitigación de residuos de plaguicidas en América Latina a través de la promoción de bioplaguicidas y otras opciones de control de manejo integrado de plagas para mejorar las oportunidades comerciales agrícolas.
Objetivo del proyecto: Promover el uso de bioplaguicidas y otras opciones de manejo integrado de plagas en cultivos de exportación en América Latina y el Caribe para mejorar el cumplimiento de los LMR de plaguicidas y facilitar el comercio agrícola.
STDF STANDARDS and TRADE DEVELOPMENT FACILITY
USDA
IICA
Minor Use Foundation


PARA REVISAR EN EL MARCO DE LA CUMBRE
La industria exportadora de pasifloras en Colombia, tiene toda la disponibilidad de atender lo establecido en la normativa del Pacto Verde Europeo; la apuesta hacia una reconversión tecnológica por una agricultura limpia y sostenible; sin embargo, requiere:
✔Mayor oferta de bioplaguicidas disponibles en Colombia
✔Estudios de LMR de las moléculas permitidas para registrar en Colombia
✔Desarrollo de Tecnologías en agricultura orgánica para el manejo sanitario de los cultivos en condiciones del trópico
✔Desarrollo de Tecnologías para mejorar la productividad

附件 5-4 An Evolving Grower Community: Adapting to New Trade and Consumer Challenges

GLOBAL MINOR USE SUMMIT IV

PANEL

AN EVOLVING GROWER COMMUNITY : ADAPTING TO NEW TRADE AND CONSUMER CHALLENGES

Elrita Venter
AgriEdge NPC – Consultant & Pomegranate Farmer
South Africa

MINOR FRUIT CROPS - SOUTH AFRICA

WHY MINOR (NEW, SPECIALTY..) CROPS?

ADVANTAGES

1. **Higher Profit Margins:** Specialty crops often command higher prices in the market compared to commodity crops. With rising production costs in SA—producers are searching for niche markets where consumers will pay a premium for unique, high-quality products.
2. **Market Demand:** There is specific growing niche market demand for specialty crops due to health trends, cultural preferences, or culinary interests. Capitalizing on these demands can be profitable.
3. **Diversification:** Specialty crop production allows farmers to diversify their product, reducing dependency on a single crop and extending the production window throughout the year to optimize farm productivity and potentially spreading out risks associated with market fluctuations or crop failures.
4. **Value-Adding Opportunities:** Some specialty crops such as pomegranate, offer opportunities for value addition, which can further enhance profitability.

CHALLENGES

1. **Market Volatility:** Specialty crop markets can be more volatile and subject to fluctuations in consumer preferences, weather conditions, and global market forces, which may impact profitability.
2. **Labor Intensiveness:** Certain specialty crops require more labor-intensive cultivation practices, harvesting, and handling compared to commodity crops, which can increase production costs.
3. **Specialized Knowledge and Expertise:** Growing specialty crops specific knowledge, skills which can pose challenges for farmers who are new to these crops. Not always informed & prepare
4. **Production Risks:** Specialty crops might be more susceptible to disease, pests, and environmental conditions, leading to dependence on effective crop protection – Chemical and alternative – IPM
5. **Market Access:** Accessing niche markets and establishing distribution channels for specialty crops can be more challenging compared to commodity crops, especially for small-scale producers. Regulatory limitations, stringent conditions – e.g. irradiation
6. **Distribution to Consumers:** Consumer preferences, trends, volumes, fruit quality; Gap in Consumer perception and expectations/feedback to producer

PRODUCTION RISKS: CHEMICAL ACTIVES

CHALLENGES

- Limited number registered for use on minor crops – e.g. only Fludioxonil for pomegranate post-harvest.
- Multinational ag-chem companies – not viable business option
- Real risk exits of resistance developing in pests & diseases.(If only few options available – over usage)
- Resistance against use of chemical actives… (and perceptions)
- cost and time implications involved in researching and implementing alternatives, especially in balancing economic, food safety and quarantine priorities) are high

✔ SA Nat. Dept Agriculture - incentive for new chemical formulation applications for registration in SA – fast-track

✔ Aim to work towards position – where chemicals are not the first and only response to pest management…. We strive towards more holistic practices in thr form of an effective IPM solution
- ✔ Cultural control
- ✔ Biological control & bio products
- ✔ Chemical control RR chemicals…
- ✔ Host resistance

MARKET ACCESS

CHALLENGES

- MRL's

✔ Differ from country to country

✔ 3rd party retailers: Required MRL value differ (less) from Codex - the risk of applying lower chemical concentrations than prescribed by the label may lead to pest resistance.

✔ Global GAP certification – only allowed to use chemical actives registered in the country of production.

COMMUNICATION/TRANSPARENCY

CHALLENGES (Producer perceptions?)

- Disconnect of communication and ownership from retailers and consumers in the fresh fruit value chain.
- Producers feel that demands keep escalating – while not strong enough partnership in finding solutions or at least working towards the best solutions.
- Producers need more reliable market research re consumer preferences – Volumes, trends, and perceptions….
- (Consumer perceptions: Do consumers know it's not only about food safety (too high MRL's) but also about controlling organisms (pathogens to humans (Listeria, etc) and mycotoxin-producing organisms(Penicillium spp.) and controlling quarantine (pests & diseases?) Relative????
- Involvement in food safety R&D: Not only producers and governments involved, but also regulators, retailers and consumers, etc.
- Ideal for minor crop producers – Move from a position of constantly being re-active regarding food safety - to a more pro-active status

CONCLUSION

1. **Research and Innovation:** Experience a need for Specialized Knowledge and Expertise in cultivation practices minor crops.
2. **Education and Training:** Specialty crops might be more susceptible to diseases, pests, and environmental conditions like climate change, leading to dependence on effective crop protection - Appropriate IPM practices, not only chemical and but also Bio, cultural, host resistance.
3. **Collaboration and Support: Market access** and establishing distribution channels for specialty crops can be more challenging compared to commodity crops, especially for small-scale producers : Need to revisit MRL limitations, stringent import conditions – e.g. irradiation.
4. **Communication: Retailers & Consumers:** Need transparency on retailer and consumer preferences, trends, volumes, fruit quality, perceptions and prices: Especially for minor crops – need to move from a linear to circular value chain, increasing ownership from retailers and consumers (Innovation)

附件 6-1 Presentation to the Global Minor Use Summit IV

Unclassified / Non classifié

Presentation to the Global Minor Use Summit IV

Marcos Alvarez
Executive Director
Pest Management Centre
Agriculture and Agrifood Canada

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

Presentation Outline

- Overview of the Pest Management Centre (PMC)
- Collaborators and stakeholders
- PMC Accomplishments (highlights)
- Innovation, regulatory support, and R&D
  - Research in support of regulatory decision for pesticide applications with drones
  - Developmental research to deploy alternative pest management solutions
  - Emerging technology - RNAi
- The future
- Joint Achievements under PMC / IR-4 Project Harmonization
- Benefits PMC / IR-4 Project Harmonization
- Regulatory requirement challenges

Overview of the Pest Management Centre

- Established in 2003
- Two programs – Minor Use Pesticide and Pesticide Risk Reduction
- HQ in Ottawa
- Research performed at ten AAFC Research Centres and private contractors and Universities
- One Analytical Chemistry Laboratory
- PRR performs wide range of R&D activities
- GLP accredited
- 60 employees

Collaborative program with Heath Canada Pest Management Regulatory Agency

- Program funding provides dedicated resources for minor use
- Application fees waived for AAFC and provincial minor use submissions

3

PMC Minor Use Team Funding

- Funding for the Minor Use Program is in 5 year cycles under a Federal Provincial Territorial Framework.
- The current framework is called the "Sustainable Canadian Agricultural Partnership".
- The program will receive $81M in total funding from 2023-24 to 2027-28.
- $21M ($4.2M per year) is transferred to the Regulator – Health Canada's Pest Management Regulatory Agency
- $43M ($8,5M per year) pays for AAFC Staff and materials, as well as external contractors for field and lab studies.
- Balance is administrative overhead

PMC Pesticide Risk Reduction Team Funding

- Funding from reference levels
- Research funding through competitive process

Collaborators and Stakeholders

- **Health Canada's Pest Management Regulatory Agency**
- **All 10 Provinces** through their Provincial Minor Use Coordinators and Crop Specialists
- Pest Control Product **Manufacturers** and **Registrants**
- **Grower Organizations** including the Fruit and Vegetable Growers of Canada
- **International Partners:** USDA IR-4, Brazil, Australia, Minor Use Foundation

PMC Accomplishments (highlights)

SUBMISSIONS AND USES
1041 submissions submitted since 2003 resulting in over 3000 new uses

CROP PROFILES
featuring current key pest issues, pest management needs and control practices, including Integrated Pest Management approaches

CROP PROTECTION PRODUCTS
supporting research for label expansion registrations addressing grower-selected pest priorities for specialty crops

BIOPESTICIDE SOLUTIONS
facilitating new product registrations and supporting research for biopesticide label expansions

ORGANIC SOLUTIONS
supporting research for label expansions targeting the organic sector

INNOVATIVE TECHNOLOGIES
developing new pest control practices which reduce the use of pesticides (e.g., diagnostic and decision-making tools, biocontrol and cultural methods, bee and drone enabled applications)

TECHONOLOGY and KNOWLEDGE TRANSFER
supporting knowledge transfer of developed technologies through demonstration of Integrated Pest Management approaches, webinars, field days, on farm research

COLLABORATIVE PARTNERSHIPS
- collaborating with Health Canada's Pest Management Regulatory Agency, other federal departments, provincial ministries, growers, academia, and pesticide companies.
- collaborating with the U.S. IR-4 Project to obtain equal access to pest control products and to prevent trade barriers through harmonized Maximum Residue Limits

GOOD LABORATORY PRACTICE (GLP)
maintaining a Standards Council of Canada recognized Organization of Economic and Cooperation Development (OECD) GLP multi-site organization

GLOBAL LEADERSHIP
collaborating with other countries and international organizations to share expertise and experiences to support pest management initiatives

Innovation, regulatory support, and R&D

Research in support of regulatory decision for pesticide applications with drones

- AAFC is leading a multidisciplinary working group to generate data in support of regulatory decision by the PMRA for pesticide applications.

PMC / IR-4 Project Harmonization

- About 25% of PMC projects are in partnership with US IR-4
- Cooperation through joint projects leads to significant resource savings:
  - Reduction in the number of field trials conducted & lab analysis trials (refer to guideline in NAFTA Crop Field trials), shorter timeframes for submission, and Joint EPA / PMRA Regulatory Review stream.
  - Regulatory decisions at approximately the same time – benefiting growers on both sides of the border
  - Harmonized tolerances / Maximum Residue Limits (MRLs) to help remove trade barriers.
- Use of crop groupings which allow registration on more crops within a group.
- Since 2003: 173 joint submissions and 155 regulatory decisions

8

Regulatory Challenges

- Major new use – Public consultations
  - Mandatory posting times and response to comments can add over a year to reviews
- Post-market reviews
  - Proposed re-evaluation decisions
  - Special Reviews – Can happen anytime
- Trial distinction requirements
  - Duplicate trials by the same PI must be either 30 days apart or 32 km apart

Thank You

附件 6-2 United States Minor Use Program: Cost/Benefit and Evolution

United States Minor Use Program: Cost/Benefit and Evolution

Nancy Fitz, Minor Use Team Leader
Office of Pesticide Programs
U.S. Environmental Protection Agency

February 6, 2024

U.S. Minor Use Program: IR-4

IR-4 Project – 60 years

- 2022 Direct funding ≈ $20 M
  - $14.5 M from U.S. Dept of Ag grant
  - $3.2 M from U.S. Dept of Ag; Agricultural Research Service
- 2022 In-kind contributions ≈ $28.5 M

IR-4 2022 Expenditures

- HQ & Regional Offices
- Field trials:
  - Residue trials (food crops)
  - Performance data (food crops)
  - Integrated Solutions research
  - Performance data (nonfood crops)

https://www.ir4project.org/about-ir4/annual_report/

U.S. Minor Use Program: EPA

- Staffing
  - Conventional chemicals: Minor Use Team: 3.5 staff
  - Biopesticides liaison
- Incentives to register minor uses
  - Minor use definition: < 300,000 acres or the use does not provide sufficient economic incentive to support the registration of a pesticide
  - The Pesticide Registration Improvement Act (PRIA) exempts certain pesticide applications from registration service fees, including:
    - Tolerance petition submitted by IR-4 (full exemption)
    - Application for minor uses of a pesticide (partial or full exemption)
  - The Federal Insecticide, Fungicide and Rodenticide Act provides data protection incentives to register pesticides on minor uses:
    - Initial exclusive use period for a new chemical can be extended by registering minor uses
    - After the exclusive use period ends, registrant data to support a minor use are protected for 10 years

U.S. Minor Use Program: Benefits

- Conventional Chemical Food Use Program
  - 5-year average: IR-4 submits 21 tolerance petitions covering 123 project requests
  - 5-year average: EPA reviews 20 chemicals, establishing 266 tolerances which support 885 uses
    - Includes 4 joint reviews and 3 workshares with Canada
  - Over 60 years, IR-4 has supported > 23,000 new uses
  - Crop grouping: regulations and implementation
  - Harmonized MRLs
- Environmental Horticulture Program
- Biopesticide and Organic Support Program
- Cooperation & education: regular meetings; IR-4 has filled data needs in re-evaluation program; crop tours

IR-4 Public Interest Finding

An application will be presumed to be in the public interest if it is for a **biopesticide** or if the **following criteria** are met:

1) The data submitted have been developed by IR-4;
2) The active ingredient is already registered for use on a food commodity;
3) The active ingredient/crop combination has been pre-screened by EPA prior to the Food Use Workshop and EPA has discussed risk concerns that might hinder registration or the establishment of a tolerance with IR-4 ["stoplight analysis"]; and
4) The use is for a minor crop, specialty crop, etc.

https://www.epa.gov/pria-fees/factors-ir-4-public-interest-finding

For More Information

- Nancy Fitz
- fitz.nancy@epa.gov
- 1-202-566-2675
- https://www.ir4project.org/
- https://www.ir4project.org/about-ir4/annual_report/
- https://www.epa.gov/pria-fees/guidance-ir-4-exemptions
- https://www.epa.gov/pesticide-registration/minor-uses-and-grower-resources
- https://www.epa.gov/pesticide-registration/minor-uses-and-grower-resources#exclusive

附件 6-3 Enfoques creativos al "problema" del uso menor: soluciones pragmáticas del sector público

IICA

Enfoques creativos al "problema" del uso menor: soluciones pragmáticas del sector público

Eric Bolaños Ledezma
Instituto Interamericano de Cooperación para la Agricultura (IICA)
Madrid, 5 de febrero 2024

Cultivoland / Cropland

Banco Mundial

Ingreso per cápita

Naciones Unidas

Un mundo en desarrollo

Índice de desarrollo Humano: Ingreso, bienestar Económico, esperanza de vida, Educación.

Cultivoland / Cropland

Cultivoland / Cropland

- Institucionalmente hay cultura de no crecimiento, generado por las políticas de reducción del Estado y contención del gasto público.
- Las instituciones tienen recurso humando limitado en cantidad y presupuesto limitado que mayoritariamente se usan para el pago de la planilla.
- Desconocimiento de como liderar la implementación de un programa nacional de usos menores (nacional y regional).
- Fuerte desconocimiento de los beneficios de invertir en usos menores, a nivel político, político / técnico, técnico, tanto en el sector público como privado.
- Posee recurso humano de todo tipo, pero si se encuentran líderes, solides técnica y mística de trabajo.

Cultivoland / Cropland

- Desarticulación del sector público, privado y académico, el cual genera vacíos de espacios de priorización de la investigación dirigida a necesidades actuales, reales y útiles. Es reactivo, no proactivo.
- Limitaciones para participar permanentemente y de forma activa en foros multilaterales vinculadas con las MSF.
- Problemas para el acceso a los mercados por incumplimiento de LMRs
- Presenta alguna rotación en sus funcionarios y carece de políticas de Estado.
- **Limitadas ofertas tecnológicas para el control de plagas algunos de sus cultivos de exportación o con potencial de exportación.**

Bajo esta realidad, qué enfoques creativos puede implementar o impulsar el sector público.

No asumir toda la responsabilidad.

- **Fomentar** las articulaciones publico – público y público – privado.
- **Generar** espacios de diálogo en diversos sectores de la sociedad para lograr comprensión y relevancia del tema en los diferentes actores.
- **Utilizar** herramientas de convencimiento: i) estudios de impacto económico; ii) Sistematización de experiencias para el convencimiento interno.
- **Priorizar** la capacitación de sus funcionarios en los temas vinculados con usos menores (incluirlo en sus planes anuales de capacitación).
- **Incorporar** en los planes o programas nacionales el tema de usos menores.

Medidas de acompañamiento para el sector público

- Mantener la oferta mundial de asesoramiento técnico
- Elaborar las herramientas de convencimiento
- Elaborar las guías de implementación de programas
- Fomentar el intercambio de experiencias exitosas
- Involucrar a las organizaciones regionales técnicas y de integración regulatoria.
- Generar espacios de diálogo estratégico sobre el tema de carácter permanente
- Establecer incubadoras de lideres técnicos y tomadores de decisión
- Promover programas de hermanamientos entre gobiernos – empresa privada
- Generar tecnología e investigación tanto en el campo químico como biológico

Perfil del cultivo menor

Importancia económica	Importancia social	Perfil ambiental
✔ Generación de divisas ✔ Impacto en las exportaciones agrícolas ✔ Perspectivas de crecimiento ✔ Área de cultivo ✔ Generación de empleo ✔ Encadenamientos productivos ✔ Vinculación a las políticas nacionales	✔ Tipo de empleo que demanda ✔ Tipo de asociatividad en el sector ✔ Ubicación geográfica del cultivo y sus características ✔ Perfil nutricional ✔ Percepción de los consumidores ✔ Perfil del productor	✔ Huella de carbono ✔ Huella hídrica ✔ Tipo de plaguicida que está vinculado ✔ Percepción de los consumidores

Cultivos con **limitada oferta** de soluciones fotosanitarias modernas para el control de plagas y enfermedades

附件 6-4 Minor Uses Situation in Chile: A successful mitigation experience

ACHIPIA
Agencia Chilena para la Inocuidad y Calidad Alimentaria

Minor Uses Situation in Chile

A successful mitigation experience

Eduardo Aylwin
Agronomist, Chilean Food Safety and Quality Agency

GMUS-4, Madrid, España. March 5-9, 2024

Alimentos seguros y saludables, tarea de todos y todas

Pesticide Authorization in Chile

The authorization (register) of pesticides in Chile is faculty of SAG, National Agricultural and Livestock Service (Regulation 1557/2014).

The process follow guidelines of FAO/WHO International Code of Conduct on Pesticide Management and international conventions and protocols (Rotterdam, Stockholm, Basel and Montreal)

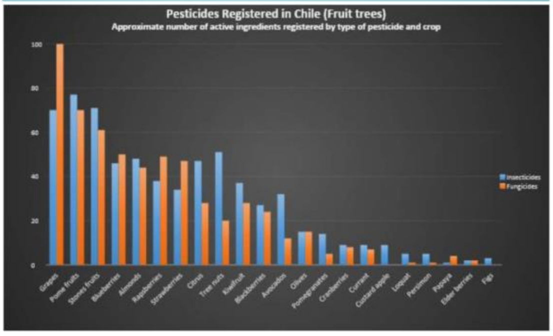
The regulation does not establish special requirements for Minor Uses.

To incorporate a new crop on the label, SAG requires a certificate of efficacy study.

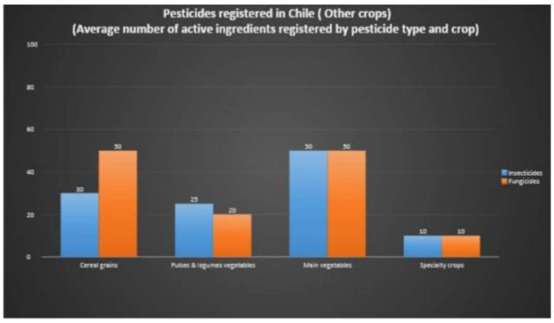
Efficacy studies must be carried out by Agronomic Experimental Stations registered in the SAG.

In recent years, specific requirements have been established for the registration of microbial and semiochemical insecticides in order to facilitate the process.

Alimentos seguros y saludables, tarea de todos y todas ACHIPIA



Alimentos seguros y saludables, tarea de todos y todas ACHIPIA



Alimentos seguros y saludables, tarea de todos y todas ACHIPIA

At the government level, healthy policies have been promoted such as changes in the FoP Labelling Act and the Elige Vivir Sano y 5 al día programs.

Also, the demand for fruits and vegetables has increased due to changes in culinary trends and consumer habits.

The widespread consumption of some specialty crops revealed the lack of authorized pesticides for some species such as kale, basil, watercress, arugula, chives, cilantro, parsley and edible flowers, among others.

Alimentos seguros y saludables, tarea de todos y todas ACHIPIA

In 2020, a public-private working committee was established with the objective of carrying out a diagnosis, identifying priorities and proposing an action plan including funding proposals.

Producer associations, agrochemical companies, universities, SAG, INIA, INDAP, etc. participated in the committee.

With suggestions from different stakeholders, a database with hundreds of identified priorities was set up.

It was agreed with agrochemical companies that they would be willing to support requests for label extensions with public funded efficacy studies.

The producer associations carried out negotiations with the Minister of Agriculture in order to commit funds to carry out the initiative.

In 2021, the Ministry allocated funds, which should be executed through an open public tender process, in two stages, and should be conducted by ACHIPIA.

Alimentos seguros y saludables, tarea de todos y todas ACHIPIA

Only Experimental Stations registered by SAG could participate in public tenders.

To optimize available funds, a call was made to provide the greatest number of studies with a minimum of 30 and 30 optional studies.

As a result of the above, 40 efficacy studies were carried out in 2021 and 42 in 2022, which allowed the expansion of labels for around 25 different formulations in more than 25 minor crops, for different pests and diseases.

To date, around 70% of the applications have been approved by SAG while the rest are still under evaluation.

It is important to highlight the collaboration of agrochemical companies throughout the process.

Alimentos seguros y saludables, tarea de todos y todas ACHIPIA

Año del estudi	N°	Nombre Comercial	N° SAG	Sustancia Activa	Empresa Titular	Cultivo(s)	Plaga/Enfermedad
2021	1	AZYRA	1039	Ciantraniliprol	FMC QUÍMICA CHILE LIMITADA	Repollo de Bruselas	Polilla de la Col
2021	2	AZYRA	1039	Ciantraniliprol	FMC QUÍMICA CHILE LIMITADA	Zanahorias	Gusano Medidor
2021	3	JUNO 45% WP	1908	Acetamiprid/Lambda cihalotrina	AGROSPEC S.A.	Rúcula	Mosquita blanca
2021	4	JUNO 45% WP	1908	Acetamiprid/Lambda cihalotrina	AGROSPEC S.A.	Kale	Áfidos
2021	5	DEFENSE 80 WP	2361	Fosetil aluminio	ANASAC CHILE S.A.	Lechuga	Bremia/Sclerotinia
2021	6	AGROCOPPER SP	2810-D	Sulfato de cobre pentahidratado	COMPAÑÍA MINERA SAN GERONIMO	Ajo-Cebolla	
2021	7	CANTUS	2462	Boscalid	BASF CHILE S.A.	Espinaca-Acelga	Botrytis
2021	8	FRONTAL 425 SC	2077	Fenhexamida/Fludioxonilo	ANASAC CHILE S.A.	Rúcula	Botrytis
2021	9	BONNUS 400 SC	2697	Pirimetanil	ANASAC CHILE S.A.	Zapallito Italiano	Botrytis
2021	10	PARTIDOR 960 EC	3652	S-METOLACLORO	ANASAC CHILE S.A.	Apio	Chufa
2021	11	VERIMARK	1665	Ciantraniliprol	FMC QUÍMICA CHILE LIMITADA	Brocoli, coliflor, repollo, repollo de bruselas	Mosquita Blanca
2021	12	FUNGIFULL 275 SC	2898	Kresoxim-metil/Tebuconazol	AGROSPEC S.A.	Ajo- Cebolla	Roya
2021	13	CANTUS	2462	Boscalid	BASF CHILE S.A.	Acelga	Esclerotinia
2021	14	BELLIS	2543	Boscalid-piraclostrobina	BASF CHILE S.A.	Acelga	Botrytis
2021	15	ORBITA SC	1028	Tiametoxam / Lambda Cihalotrina	ANASAC CHILE S.A.	Albahaca	Pulgón
2021	16	VENZAR	3020	Lenacilo	FMC QUÍMICA CHILE LIMITADA	Espinaca	Malezas
2021	17	CANDADO 200 EW	2088	Penconazol	ANASAC CHILE S.A.	Espinaca	Oídio
2021	18	ACETAMIPRID 70% WP	1035	Acetamiprid	AGROSPEC S.A./NEWRAT	Kale, Berro	Pulgones
2021	19	FAST 1.8 EC	1509	Abamectina	ANASAC CHILE S.A.	Kale, Berro	Ácaros
2021	20	AZYRA	1039	Ciantraniliprol	FMC QUÍMICA CHILE LIMITADA	Kale, Berro	Polilla de la col
2021	21	GRANDEVO WG	1897	Chromobacterium subtsugae	XILEMA S.A. (ANASAC)	Perejil-Cilantro	Pulgones
2021	22	GLADIADOR 450 WP	1778	Acetamiprid/Lambda cihalotrina	ANASAC CHILE S.A.	Perejil	Pulgones
2021	23	METALAXIL-M 25% WP	2344	Metalaxilo	ANASAC CHILE S.A.	Rúcula	Mildiu
2021	24	ESQUINAZO 250 SC	2947	Azoxystrobina	ANASAC CHILE S.A.	Rúcula	Mildiu
2021	25	ACIERTO 140 EC	2973	Kresoxim-metil/Difenoconazol	AGROSPEC S.A.	Habas	Tizón
2021	26	AZYRA	1039	Ciantraniliprol	FMC QUÍMICA CHILE LIMITADA	Repollo de Bruselas	Polilla de la col
2021	27	BELLIS	2543	Boscalid + piraclostrobin	BASF CHILE S.A.	Brocoli, coliflor, repollo, repollo de bruselas	Esclerotinia/Alternaria
2021	28	CITRUS SL	2758	Extracto cítricos	AGROSPEC S.A.	Brocoli, coliflor, repollo, repollo de bruselas	Botrytis-Bacterias
2021	29	SERIFEL WP	2976	Bacillus amyloliquefaciens (Bacillus subtilis), raza MBI 600	BASF CHILE S.A.	Brocoli, coliflor, repollo, repollo de bruselas	Mildiu
2021	30	JUNO 45% WP	1908	Acetamiprid/Lambda-cihalotrina	AGROSPEC S.A.	Brocoli, coliflor, repollo, repollo de bruselas	Pulgones
2021	31	GLADIADOR 450 WP	1778	Acetamiprid/Lambda-cihalotrina	ANASAC CHILE S.A.	Brocoli, coliflor, repollo, repollo de bruselas	Polilla
2021	32	PDEMAX EW	3532	Fenmedifam / desmedifam / etofumesato	ANASAC CHILE S.A.	Lechuga	Herbicida de Amplio Espectro
2021	33	BELLIS	2543	Boscalid-piraclostrobina	BASF CHILE S.A.	Zanahoria	Botrytis
2021	34	BELLIS	2543	Boscalid-piraclostrobina	BASF CHILE S.A.	Zanahoria	Esclerotinia
2021	35	BELLIS	2543	Boscalid-piraclostrobina	BASF CHILE S.A.	Zanahoria	Rhizopus
2021	36	RANMAN 400 SC	2486	Ciazofamida	ISK BIOSCIENCES CORPORATION CHILE Y COMPAÑÍA LTDA	Zanahorias	Mildiu
2021	37	ALFAMAX 10 EC	1436	Alfacipermetrina	POINT CHILE S.A.	Rúcula	Áfidos
2021	38	ABAMAX 1.8 EC	1763	Abamectina	POINT CHILE S.A.	Mizuna	Ácaros
2021	39	VERSYS	1908	Afidopiropeno	BASF CHILE S.A.	Perejil-Cilantro	Pulgones
2021	40	VERSYS	1908	Afidopiropeno	BASF CHILE S.A.	Kale, Berro	Pulgones

Alimentos seguros y saludables, tarea de todos y todas ACHIPIA

Actividad actual	N°	Nombre Comercial	N° Inscripción	Ingrediente Activo	Empresa o Titular	Cultivo(s)	Plaga/Enfermedad
2016	4(C)+M3A/FRAC	COPPER OL	1780	LLANTO DE COBRE PENTAHIDRATADO / (RETRACTO DE NARANJA - Cloruro	ADAMA CHILE S.A.	Jachagüe (Lechuga cultivar)	Mancha chocolate, Alternaria spp.)
2016	4(C)+M3/FRAC		2840	CAPTAN FINA (EN ELEVADO) NA DE Copy (con copy) / (EXTENDIMANTO DE	ADAMA CHILE S.A.	Jachagüe (Lechuga cultivar)	Tizón (Erwinia carotovora subespecie),
2016	4(C)+M3/FRAC		3042	CAPTAN FINA (EN ELEVADO) NA DE Copy (con copy) / (EXTENDIMANTO DE	ADAMA CHILE S.A.	Jachagüe (Lechuga cultivar)	Mancha cay y Bacteriosis s.p.
2016	4(C)+M3/FRAC		3077	EXTENDIMIENTO	AGRISPEC S.A.	KASI (Brassica oleracea var. capitata Gr.)	POLILLA DE LA COL (Plutella xylostella)
2016	4(C)+M3/FRAC		1312	EXTENDIMIENTO	ANASAC CHILE S.A.	Cucurbitáceas	Peronospora (Pythium spp.) y Mildiu
2016	4(C)+M3/FRAC		2665-2	Formulación en polvo para Copia DE M 14/40 / Formulation en poudre pulvérulente	ANASAC CHILE S.A.	Ajos, Cebollas, Puerros, Calabacín y Chalotas	Mancha
2016	4(C)+M3/FRAC		2677	TRIMIDINAS A / FUNGICIDA M10	ANASAC CHILE S.A.	Ajos (Allium sativum), Cebollas (Allium cepa),	Mancha cu
2016	4(C)+M3/FRAC		2837	FUNGITRIN 10	ANASAC CHILE S.A.	Ajos (Allium sativum), Cebollas (Allium cepa),	Mancha cu
2016	4(C)+M3/FRAC		2845-1	Oxinatobakterl amicable agar-copa MANA LT	ANASAC CHILE S.A.	Ajo, Puerro, Cebolla y Chalota	Tizon de la cebolla (Phoma terrestris) y
2016	4(C)+M3/FRAC		3005-3	MANCOZEB / FUNGICIDA M10	ANASAC CHILE S.A.	Ajos (Allium sativum), Cebollas (Allium cepa),	Mancha cay
2016	4(C)+M3/FRAC		3009	TRIMIDINAS A / FUNGICIDA M10	ANASAC CHILE S.A.	Ajos (Allium sativum), Cebollas (Allium cepa),	TIZON FOLIAR (Stemphylium
2016	4(C)+M3/FRAC		3016-1	AZOXYSTROBINA / DIFENOCONAZOL	ANASAC CHILE S.A.	Ajos (Allium sativum), Cebollas (Allium cepa),	Alternaria y antracnosis
2016	4(C)+M3/FRAC		2042	MANCOZEB / FUNGICIDA M10	BASF CHILE S.A.	DURAZNERO (Allium fistulosum)	BOTRYTIS (Botrytis sp.)
2016	4(C)+M3/FRAC		2414	PROPINEB 70%	BASF CHILE S.A.	DURAZNERO (Allium fistulosum)	Mancha gris (Cercospora y Septoria)
2016	4(C)+M3/FRAC		2699	EXPEDIENTE	BASF CHILE S.A.	PUERROS (Allium ampeloprasum var. porrum)	MILDIU (Peronospora destructor)
2016	4(C)+M3/FRAC		2685	EXPEDIENTE PO	BASF CHILE S.A.	DURAZNERO (Allium fistulosum)	MILDIU (Peronospora destructor)
2016	4/M3		2942	MANCOZEB / FUNGICIDA M10	BASF CHILE S.A.	PUERROS (Allium ampeloprasum var. porrum)	MILDIU (Peronospora destructor)
2016	4(C)+M3/FRAC		2642	MANCOZEB / FUNGICIDA M10	BASF CHILE S.A.	DURAZNERO (Allium fistulosum)	MILDIU (Peronospora destructor)
2016	4(C)+M3/FRAC		2760	PUNTO STRIKE PRO / EXPEDIENTE PRO	BASF CHILE S.A.	DURAZNERO (Allium fistulosum)	MILDIU (Peronospora destructor)
2016	44/M3/FRAC		2955-15	Bacillus subtilis Cepa QST 713	BAYER S.A.	AJO (Allium sativum L.) y CEBOLLIN (Allium cep	BACTERIOSIS (Erwinia carotovora)
2016	4(C)+M3/FRAC		1706	FLUMIDEX 500 EC	BAYER S.A.	Zanahoria (Daucus carota L.)	SCLEROTINIA (Sclerotinia sclerotio
2016	44/M3/FRAC		3016-2	Bacillus subtilis cepa QST	Biopesticidas SpA	AJO (Allium sativum), PUERROS (Allium ampe	Pudrición blanda (Pectobacterium
2016	4(C)+M3+CHA/FRAC		2665-17	Trichoderma atroviride cepa TC; Trichoderma asperellum cepa TC01,	Biopesticidas SpA	Ajos (Allium sativum), Cebollas (Allium cepa),	DAMPING
2016	44/M3/GRATE		1376	REPARTIDOR 64	CENTRAL AGROSCIENCE CHILE LTDA	KASE (Brassica oleracea var. capitata Gr.),	PULGA SALTADORA (Phyllotreta spp.)
2016	44/M3/GRATE		1376	REPARTIDOR 64	CENTRAL AGROSCIENCE CHILE LTDA	KASE (Brassica oleracea var. capitata Gr.),	POLILLA DE LA COL (Plutella xylostella)
2016	44/M3/GRATE		1376	REPARTIDOR 64	CENTRAL AGROSCIENCE CHILE LTDA	CEBOLLIN (Allium cepa var. aggregatum)	MANADOR DE (Limnaecia halodoxa)
2016	4/M3/GRATE		1376	REPARTIDOR 64	CENTRAL AGROSCIENCE CHILE LTDA	CEBOLLETTE (Allium cepa var. aggregatum)	MANADOR DE (Limnaecia halodoxa)
2016	44/M3/GRATE		1376	REPARTIDOR 64	CENTRAL AGROSCIENCE CHILE LTDA	PUERROS (Allium porrum)	MANADOR DE (Limnaecia halodoxa)
2016	44/M3/GRATE		1376	REPARTIDOR 64	CENTRAL AGROSCIENCE CHILE LTDA	CEBOLLIN JAPONES (Allium fistulosum)	MANADOR DE (Limnaecia halodoxa)
2016	7M3/ISHIA		2631	DUETO WG 25	ISHIHARA SANGYO KAISHA LTDA.	BERENJENA (Solanum melongena),	POLILLA DE (Keiferia lycop, Manu
2016	P3/M9/AMB3		2695	DUNETA MIX 67 WG	PHYTOTECHNIA CHILE LIMITADA	AJO (Allium sativum L.),	MANADOR DE (Limnaecia halodoxa)
2016	P3/M9/AMB3		2695	DUNETA MIX 67 WG	PHYTOTECHNIA CHILE LIMITADA	ajo (Allium sativum), cebollas (Allium cepa)	Tizon (Botrytis tallada), Botrytis (Botry
2016	7/M3/DOW IND		2016-3	CONTACTO 30 (fenoxaprop-p-etil + e	DOW AGROSCIENCES S.A.	CEBOLLIN (Allium cepa var. aggregatum)	BOTRYTIS (Botrytis cinerea)
2016	P6/M9/AMB3		2402	DIDOTHANE 80	CID BIOSCIENCE CORP. EMPRESA DE L' E COMPAÑÍA LIMI	Ajos (Allium sativum), Cebollas (Allium cepa),	MILDIU (Peronospora destructor)
2016	P5/M9/BAY/B 200 EC		2634	SPIRITRON	BAYER DE CHILE SPA	KASE (Brassica oleracea var. capitata Gr.),	ACARO (Tetranychus urticae Koch)
2016	7M3/BAYCS EC		2694-2	Mezcla de fungicidas multisitio nuclear-de Mezcla de fungicidas Cepa	POINT CHILE S.A.	Nuez de Brasil (nuez cacha)	Pudrición de las bellotas (Fusario
2016	P7/M9/DOTH 105 EC		1875	BETA-DINUTRINA	POINT CHILE S.A.	PEREJIL (Petroselinum sp.), CILANTRO (Coriand	PULGUILLAS (Mulsa persicae)
2016	P6/M9/DOTH 105 EC		1875	BETA-DINUTRINA	POINT CHILE S.A.	KALE (Brassica oleracea var. capitata Gr.), REPO	PULGUILLAS (Brassicogethes brassicae)
2016	7M3/ISKATE 200 EC		2307	AZOXYMYR D	POINT CHILE S.A.	KALE (Brassica oleracea var. capitata Gr.	MOSCA (Brassicomyia brassicae)
2016	44/M3/KATE PLUS 40% WP		2417	AZOXYMYR D / LAMBDA-CIHALOTRINA	POINT CHILE S.A.	PEREJIL (Petroselinum sp.), CILANTRO (Coriand	PULGUILLAS (Mulsa persicae)
2016	44/M3/KATE PLUS 40% WP		2417	AZOXYMYR D / LAMBDA-CIHALOTRINA	POINT CHILE S.A.	ALMENDRO (Prunus dulcis)	PULGUILLAS (Mulsa persicae)
2016	4(C)+M3/FRAC		1406	AQUA-DISPERSYRINA	POINT CHILE S.A.	KALE (BRAS	PULGUILLAS (Brassicogethes brassicae)

附件 6-5 Use of Pesticides and efforts to harmonize MRLs for Minor Use in crops in India

Use of Pesticides and efforts to harmonize MRLs for Minor Use in crops in India

P.K. Chakrabarty

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DARE, Ministry of Agriculture and Farmer's Welfare, New Delhi, India.

Outline of Presentation

I. Definition of the Problem
II. Rationale for Crop grouping
III. Regulatory Developments for Crop grouping and Minor use
IV. Way Forward

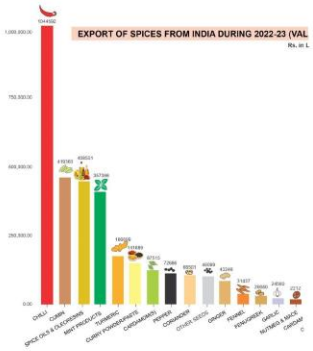
I. Definition of the problem

- 36 alerts from EU; and 41 import refusal from USA on fresh fruits and vegetables (2015-17).
- 1708 of 12,821 (13.3%) random samples of vegetables showed residues of non-approved pesticides (MPRNL; 2017-2018, DAC, GOI).
- Common non-approved pesticides included acephate, acetamiprid, profenofos, methamidophos, imidacloprid, triazophos, cypermethrin, thiamethoxam, fenpropathrin and metalaxyl (10)
- Scientists and FSSAI raised concerns that unless harmonised such residues would affect countries trade (<1% horticultural commodities, exported) and biosafety.

II. Rationale for Crop Grouping....

- 330 pesticides registered on 83/554 20%) crops.
- The sale potential is inadequate to seek expansion on Minor Crops (speciality crops: veg, fruit spices, etc).
- Absence of labels deprive farmers of effective technologies for pest mgmt.
- India engaged with CCPR; included several indigenous crops in the existing codex crop group during CCPR 46/47/48.
- Crop grouping and extrapolation of MRL of representative crops to other member in the group is the rational option for biosafety of consumers and harmonization of concerns arising from off- label use on minor crops.

Crop Types	Crop Group	Sub-group	Number of crops
Fruits	6	21	141
Vegetables	10	33	239
Grasses	2	6	38
Nuts & seeds	3	5	43
Herbs & spice	2	10	93
Total	23	75	554



India-the Spice king of the world

- **India is the world's largest producer consumer & exporter of spices.**
- **Contributes 75% of global spice prod.** (69/109 spices).
- **Varying climates of India - from tropical to subtropical-temperate-almost all spices grow splendidly.**
- During 2022-23, India produced >14.5 MMT tons of spices across the country
- **During the same year India exported 1.4 M tons of Spices worth 3.9 B$**
- These spices include garlic, fennel turmeric, coriander, cumin, dill, ajwain, fenugreek, nigella, caraway cinnamon, cardamom, black pepper etc.

Pests and Diseases of Spice Crops & Label Claim

Hardly any pesticides are registered on these Under-Utilized & Minor Horticulture Crop.

Crop	Pest/Disease	Distribution	Label claim
Black pepper	Anthracnose, Stunted disease, Slow decline, Striped/Tailed mealybugs, Top shoot borer, Leaf gall thrips	All countries	Nil
	'Pollu' beetle, Scale insects, Root mealybugs	India	
Cardamom	Leaf blight, Rhizome rot, Nursery leaf spot, 'Katte' or mosaic disease, Chlorotic streak, Root grubs, Root-knot nematodes	All countries	Nil
	Leaf blight, Stem lodging, 'Kokke kandu' or vein clearing disease, Shoot fly, White fly	India	
Cinnamon	Cinnamon butterfly	All countries	Nil
	Leaf miner	India	
Coriander	Wilt, Stem gall, Blight, White fly, Aphids, Cut worm, Seed chalcid fly, Root-knot nematodes	All countries	Nil
Cumin	Cumin wilt, Damping off, Root-knot nematodes	All countries	Nil
Ginger	Soft rot disease, Fusarium yellows, Bacterial wilt, Leaf spot, Leaf blight, Chlorotic fleck, Shoot borer, Rhizome scales, Leaf roller, Root-knot nematodes	All countries	Nil
Nutmeg	Leaf fall and fruit rot, Thread blight	All countries	Nil
	Brown scale	India	
Turmeric	Shoot borer, Rhizome scale, Root-knot nematodes	All countries	Nil
	Leaf beetle, Lesion nematodes	India	Nil
Vanilla	Root and stem rot, Anthracnose, yellowing and immature bean shedding, Bean rot, Collar and bean rot, Virus diseases	All countries	Nil

III. Regulatory Developments

- **369th meeting of RC (Oct 4, 2016) constituted a sub-committee under chairmanship of ADG (PP&B), ICAR to implement crop grouping for Minor crops.**
- **A Workshop on "Crop Grouping & Minor Use Concept for Crop Protection Products in India" organized on Oct 24-25, 2017, in ICAR.**
- **The expert officials from Min. of Agriculture, ICAR, FSSAI, CIB&RC, SAUs, international experts, members of CLI & Crop Protection industry participated in the workshop.**

Workshop on "Crop Grouping and Minor Use Concept for Crop Protection Products in India"

- **The workshop recommended To establish guidelines for implementation of Crop Grouping principles for group MRLs;**
- **Label claim expansion within the crop group/ sub-groups; define criteria for identification of minor crops in the Indian context;**
- **Adoption of bio-efficacy and residue data requirements for minor crops based on scientific rationale through data mining or extrapolation/ national monitoring data based on global practices.**

Proposed Data generation Scheme for implementation of crop grouping for fixation of Sub-group MRL

Crops	Bio-efficacy	Residue		MRL fixation/ value (Subgroup)
		Pesticides	Herbicides	
Representative Crop(s)	3L 2S	4L 1S	3L 2S	Based on highest residue/ worst case from Rep. crops subgroup MRL to be set
Member commodity in same Sub-Group (Dose is comparable with representative crop, i.e. does not exceed the recommended dose by more than 25%)*	3L 1S	1L1S	1L1S	Sub-Group MRL shall apply to member crops

* It will be applicable once FSSAI adopt fixation of MRL at proposed 1.25X dose. L – No of Locations; S – No of Seasons

IV. Way Forward 1: Identifying Major / Other than Major crops in Indian context

- As per CropLife India members the existing guidelines skipped identifying minor crops, which makes it non-attractive for registrants. In view of this, classifying major / minor crops becomes important.
- One of the approaches to identify such crops could be: **Consumption | Acreage | Production.**
- WHO-GEMS Food Cluster Diet Group 5 was considered for Indian context.

Criteria	Major Crops			
	1	2	3	
1. **Consumption** High >2g/person/ day	□	□		Crops that showed "High" for minimum of 2 criteria designated as "Major Crops"
2. **Acreage** High- >3,00,000 ha	□		□	
3. **Production** High- >2 million tons		□	□	

Way Forward 2: Relaxation in Data Requirements requested (data bridging)

1. **A total of 37 crops** identified as **Major Crops in Indian** context.
2. All other crops not included here shall be deemed to be "Other than major crops (basically minor crops)".

Fruits	Vegetables	Cereals	Pulses	Herbs & Spices	Oil Seed	Cash Crop
Grape	Chilli	Rice	Pigeon Pea	Cumin	Groundnut	Cotton
Banana	Cabbage	Wheat	Bengal Gram	Cardamom	Mustard	Sugarcane
Apple	Cucumber	Maize	Black Gram	Tea	Sunflower	Tobacco
Manderin	Cauliflower	Pearl Millet	Soybean			
Lime/Lemon	Brinjal	Sorghum	Peas			
Mango	Okra					
Pomegranate	Tomato					
Watermelon	Onion					
	Potato					

Way Forward 3: Relaxation in Data Requirements requested (data bridging)

Revisiting Representative Crops

Alternative representative commodities can be selected due to regional differences in dietary consumption and/ or areas of production for certain commodities, provided basic principles for the selection of representative commodities are met.

A representative commodity is most likely

- to contain the highest residues
- to be major in terms of production and/or consumption.
- similar in morphology, growth habit, pest problems and edible portion to the related commodities within a group or subgroup.

Crop	Bioefficacy	Residue		MRL fixation/ value (Subgroup)	Remarks/ Justification
		I/F/ST/ PGR	Herbicide		
Representative Crop(s)	3L 2S	4L 1S	3L 2S	Subgroup or Group MRL to be set based on Rep crop	**Same as approved by RC.**
MEMBER CROP (Major) commodity in same Subgroup as rep crop	2L 1S	NR	NR	Based on Subgroup / group MRL	Residue data **not required.;** Insisting on residue data is against the basic tenet of Crop Grouping. NR in any country.
MEMBER CROP (Other than Mai) commodity in same Subgroup	1L 1S	NR	NR	Based on Subgroup / group MRL	New proposal. Relaxed efficacy data will be an incentive to register/ consider additional label claims.

I – Insecticides; F - Fungicides; ST – Seed Treatment; PGRs – Plant Growth Regulator; L – No of Locations; S – No of Seasons; NR – Not Required

Codex Maximum Residue Limits (CXL) for various pesticide-crop combination fixed based on monitoring data submitted by India (2014-2023) MPRNL

Monitoring data has also been submitted during 2023 for fixation of CXL of thiamethoxam and tebuconazole on cumin.

S.No	Pesticide	Commodity	Codex MRL (mg/kg)
1	Dithiocarbamates	Black pepper	0.1
2	Acetamiprid	Black pepper	0.1
3	Acetamiprid	Cardamom	0.1
4	Dithiocarbamates	Cardamom	0.1
5	Cypermethrin	Cardamom	3
6	Triazophos	Cardamom	4
7	Cyhalothrin-L	Cardamom	2
8	Profenofos	Cardamom	3
9	Dithiocarbamates	Coriander seed	0.1
10	Phorate	Coriander seed	0.1
11	Triazophos	Coriander seed	0.1
12	Profenofos	Coriander seed	0.1
13	Dithiocarbamates	Cumin	10
14	Profenofos	Cumin	5
15	Dithiocarbamates	Fennel	0.1
16	Phorate	Fennel	0.1
17	Triazophos	Fennel	0.1
18	Profenofos	Fennel	0.1
19	Acetamiprid	Cumin (extrapolated to subgroup of spices, seeds)	2
20	Carbendazim	Cumin (extrapolated to subgroup of spices, seeds)	5

附件 7 EU actions towards more sustainability in plant protection

EU actions towards more sustainability in plant protection

Klaus Berend
Director Food Safety, Sustainability and Innovation

Global Minor Uses Summit
7 Feb 2024

Farm to Fork Strategy

The Farm to Fork Strategy aims to accelerate a transition to a sustainable food system that should:

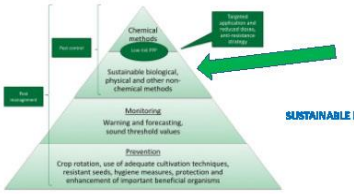
- have a neutral or positive environmental impact
- help to mitigate climate change and adapt to its impacts
- reverse the loss of biodiversity
- ensure food security, nutrition and public health, making sure that everyone has access to sufficient, safe, nutritious, sustainable food
- preserve affordability of food while generating fairer economic returns, fostering competitiveness of the EU supply sector and promoting fair trade.

The strategy sets out both regulatory and non-regulatory initiatives in the form of an action plan.

Farm to Fork and pesticides

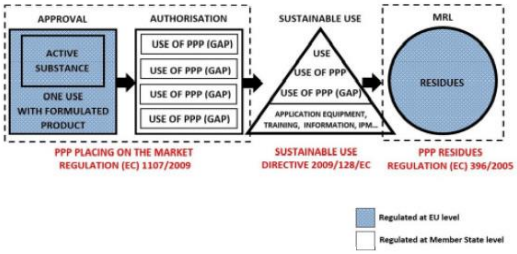
The use of pesticides in agriculture contributes to pollution of soil, water and air. The Commission will take actions to:
- reduce by 50% the use and risk of chemical pesticides by 2030
- reduce by 50% the use of more hazardous pesticides by 2030

Organic farming is an environmentally-friendly practice that needs to be further developed. The Commission will boost the development of EU organic farming area with the aim to achieve 25% of total farmland under organic farming by 2030.

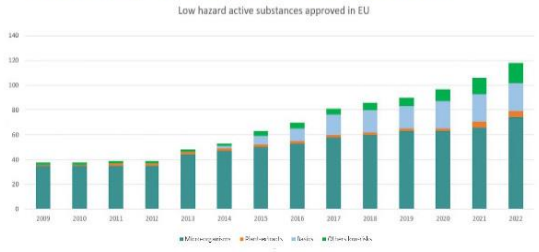


SUSTAINABLE USE OF PESTICIDES – IPM

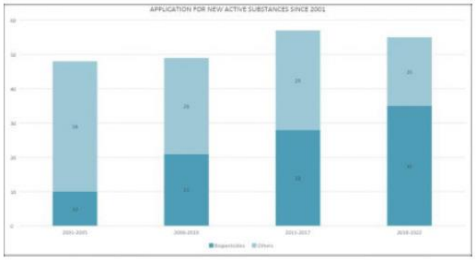
Pesticides are highly regulated in the EU



Availability of 'non-chemical' solutions



Trends in applications for new active substances



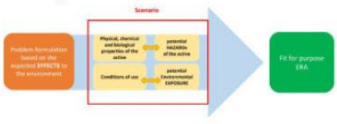
Activities on micro-organisms used in PPP

New Regulations and guidance documents on MO	Two Communications from the European Commission	Explanatory notes + dRR	Others
Guidance document on Metabolites of Concern (Oct 2020)	List recommended test methods/ guidance documents	Support understanding of the new EU Reg	IUCLID
Guidance document on AMR (May 2021)	Support dossier-preparation	Support dossier-preparation	New test methods (OECD)
Four Implementing Regulations (applicable as from Nov 2022)	Not legally binding	Harmonise risk assessment and risk management	Consensus documents on MO species
	Endorsed in March 2023	Not legally binding	Background level on MO species
	Additional database of useful guidance documents	Endorsed at PAFF October	

Completed/on Table
Ongoing

Other biocontrol agents

- **Pheromones**: amendment of the GD on semiochemicals to extend the group of pheromones beyond the SCLP group – (Endorsed in Jan 2024)
- **Others (e.g., RNA, peptides)**: based on need-to-know approach (e.g. via point 1.5 introduction data requirements) and along the draft "Problem Formulation" document (Endorsed in Jan 2024)

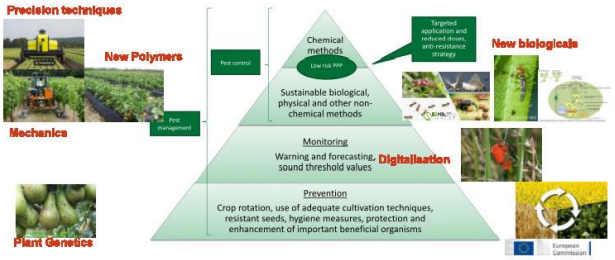


Strenghtening Member States capacity

- *Better Training for Safer Food – Risk Assessment on Micro-organisms*
  - ✔ since July 2021
  - ✔ target: risk assessors
  - ✔ as of today, 10 sessions held and 323 risk assessors were trained
  - ✔ training session still ongoing until March 2025
- *Grants for MS to assess plant protection products*
  - ✔ €10 Million allocated to 6 MS (AT, EE, ES, LT, LV, and SK).
  - ✔ focusing on priority review of biocontrol

9

F2F strategy and SUR proposal call for strengthening IPM practices and application techniques with reduced impacts



Some perspectives for minor uses

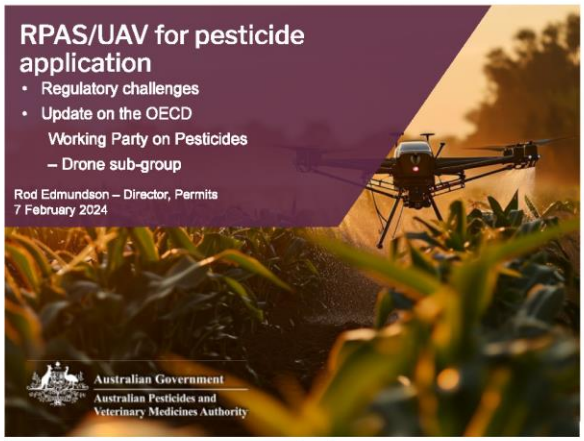
- **Pesticides policy in EU is evolving:**
  - New political objectives: Green Deal, Farm2Fork, IPM, bio-control based solutions first
  - New elements in the risk assessment (ED, …): less chemical hazardous active substances
  - New types of active substances: MO, semiochemicals, plant extracts, RNAi, Peptides,…
  - New types of application techniques: digital and precision techniques
- **Calling for more creativity in the way minor uses "gaps" are filled:**
  - IPM first
  - New tools outside plant protection products
  - Research projects (Minor Uses Coordination Facility)
  - Networking and cooperation between research and extension or farmers groups (DG AGRI – "AKIS": Agricultural Knowledge and Innovation Systems)

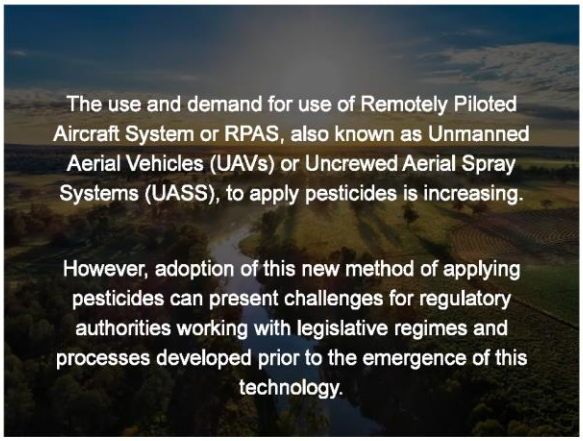
Thank you

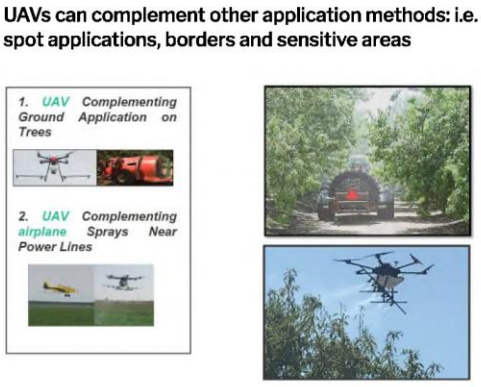
For further information:
https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en
https://food.ec.europa.eu/plants/pesticides/sustainable-use-pesticides_en
https://food.ec.europa.eu/plants/pesticides/minor-uses_en

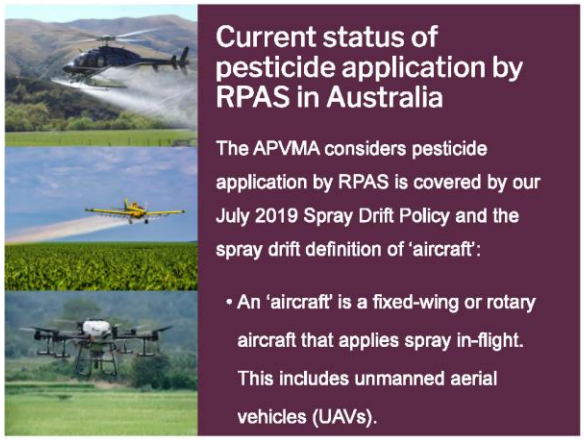
Disclaimer: the views expressed in this presentation are personal and cannot be interpreted as official views of the European Commission

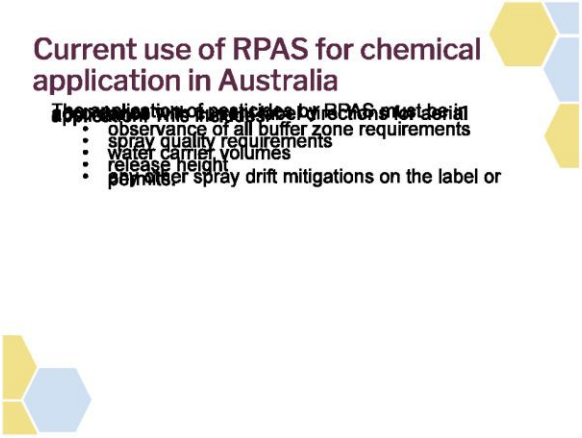
附件 7-2RPAS/UAV for pesticide application











Current use of RPAS for chemical application in Australia

- The APVMA considers that the risk to operators, bystanders and the environment, as well as risk mitigation measures associated with RPAS application, will require specific consideration of the risks for permit and registration applications
  - Before RPAS/UASS specific label recommendations can be made regulatory quality data is required for risk assessment

Working Party on Pesticides Drone Subgroup

- Formed in June 2019

"Define aspects of drone technology which will influence the risk characterisation in comparison with existing pesticide product evaluations (e.g. for aerial application) in order to establish if there are any additional requirements / information gaps and to recommend an approach to WGP to address any related risks."

Publications

- Emerging technologies webpage apvma.gov.au/node/91741
- one.oecd.org/document/ENV/CBC/MONO(2021)39/En/pdf

"State of the knowledge literature review on unmanned aerial spray systems in agriculture"

WPP endorsed recommendations

Standard testing protocols / methodologies for consistent assessment of risks related to application of pesticides:

- Development of standard testing methodologies
- Publish interim best practice
- Develop empirical database and standard drift curve
- Gather data for operational practices
  i) operators
  ii) potential edge of field effects
- Develop a mechanistic model for predicting spray deposition

Formation of UAPASTF

- Formation of the Unmanned Aerial Pesticide Application System Task Force (UAPASTF)
  - November 2021
- The primary goals of the Task Force:
  - To generate and submit regulatory data to government agencies
- The work of the industry taskforce is paramount to achieving some of the deliverables outlined in the work plan of the OECD Drone / UASS Subgroup.

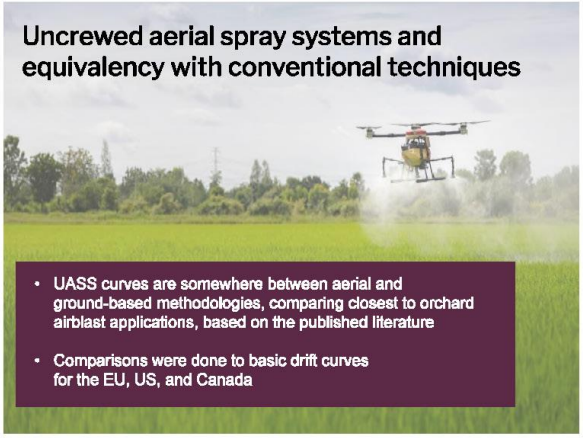
Unmanned Aerial Pesticide Application System Task Force (UAPASTF)

Industry sponsored task force – (UAPASTF) established

Member Company	Administrative Committee	Technical Committee
BASF Corporation	Rebecca Willis	Frank Donaldson (Chair)
Bayer CropScience LP	Greg Watson (Chair)	Jane Tang
Corteva Agriscience	Travis Bui (Vice Chair)	Rajeev Sinha
Gowan Company LLC	Raymond Layton (subbing for Ephraim Gur)	Jason A. McDonald
FMC Corporation	Hector Portillo	Roberto Barbosa
NuFarm Americas Inc.	Patti Turner	Tyler Gullen
Syngenta Crop Protection LLC	Nestor Algeri (Treasurer)	Jo Davies
Valent U.S.A. LLC	Robin Charlton	Christopher Read

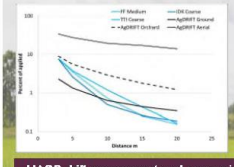
Parties interested in the work of, or registrants interested in joining the UAPASTF should contact:
Dr. Greg Watson,
Chair, UAPASTF Administrative Committee
greg.watson@bayer.com
+1 314 343 8120

Uncrewed aerial spray systems and equivalency with conventional techniques

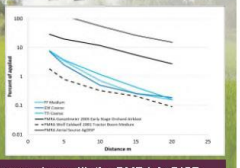


- UASS curves are somewhere between aerial and ground-based methodologies, comparing closest to orchard airblast applications, based on the published literature
- Comparisons were done to basic drift curves for the EU, US, and Canada

Uncrewed aerial spray systems and equivalency with conventional techniques:

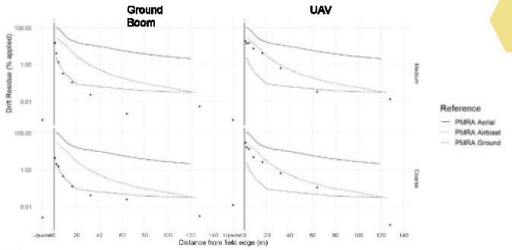


UASS drift assessment and comparison with the EPA AgDRIFT 2.1.1 orchard, ground, and aerial curves. The 6-rotor UASS operated at a velocity of 3.8 m/s and 4.8 m altitude, with a medium and 2 coarse nozzles



UASS drift assessment and comparison with the PMRA AgDISP for aerial, and empirical data for tractor boom sprayers with a medium spray distribution and orchard airblast early. The 6-rotor UASS operated at a velocity of 3.6 m/s and 4.8 m altitude, with a medium and 2 coarse nozzles

UAPASTF Non-GLP pilot spray drift trial results – comparison with PMRA Drift Curves

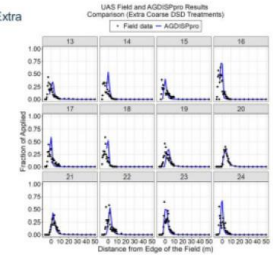


AgDISP Pro UAV spray drift mechanistic model against field trials

Slide adapted from IUPAC presentation

Results - Single Swath "Extra Coarse" Spray

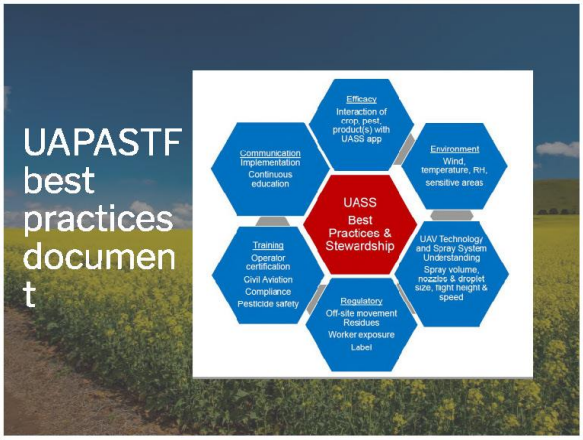
- Optimal swath width calculated for each pass was used (avg. 2.1 m)
- Swath displacement based on optimal swath width was used (avg. 1.4 m)
- The modeled depositions match the field measurements very well

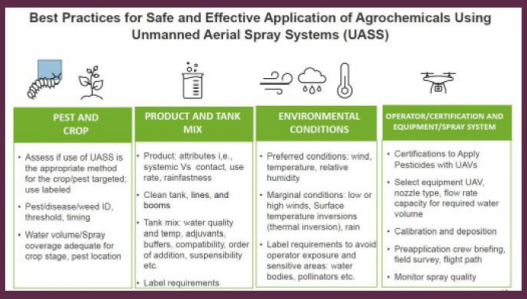


OECD Co-operative Research Programme: Sustainable Agricultural and Food Systems (CRP) Sponsored

Drone Spraying of Pesticides
York, United Kingdom
23 to 24 May 2023

OECD Co-operative Research Programme





Australian Government
Australian Pesticides and Veterinary Medicines Authority

apvma.gov.au

附件 8-1 US human health risk assessment of pesticides used in organic products: a different approach with the same goal

US human health risk assessment of pesticides used in organic products: a different approach with the same goal

Global Minor Use Summit 2024
Jane Stewart, BASF

BASF
We create chemistry

Toxicology and Consumer Safety

What is organic?

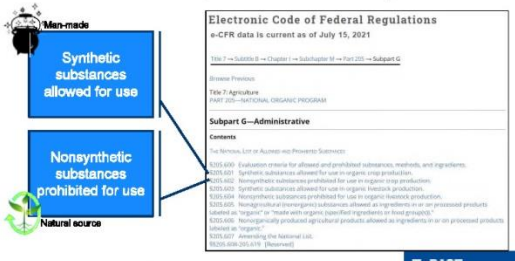
Toxicology and Consumer Safety

BASF 2

The National Organic Program Rule

7 CFR Part 205 – also knowns as the Organic Foods Production Act

The *National List of Allowed Synthetic and Prohibited Non-synthetic substances*



Toxicology and Consumer Safety

BASF 3

The National Organic Program Rule Philosophy #1

In general, synthetic substances are prohibited for crop and livestock production unless specifically allowed.

Number of synthetic substances permitted on the National List

Toxicology and Consumer Safety

BASF 4

The National Organic Program Rule Philosophy #2

In general, nonsynthetic substances are allowed for crop and livestock production unless specifically prohibited.

Number of nonsynthetic substances prohibited on the National List

Toxicology and Consumer Safety

BASF 5

Pesticides used in organic production can be divided into 3 categories:

Non-synthetic Substances

Synthetic Substances

Synthetic substances are man-made. They are not produced from a natural source.

Synthetic substances and their breakdown products must have no adverse effect on human health and must not contribute to contamination of crops, soil, or water.

Biochemicals

Biochemicals are naturally occuring or structurally similar to naturally occuring substances.

Biochemicals must have non-toxic mode of action and a demonstrated history of exposure to humans and the environment with minimal

Microbials

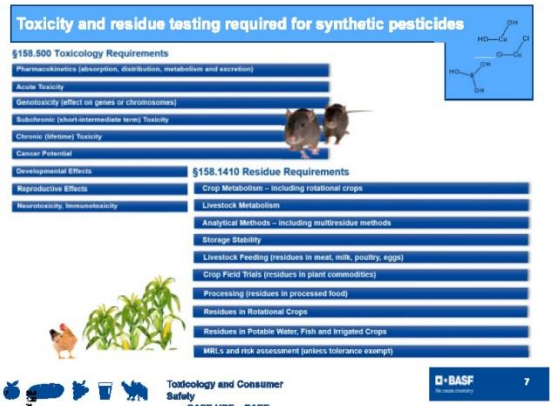
Microbials are microorganism such as bacteria, fungus, algae, virus or protozoan.

Microbials are intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant.

Toxicology and Consumer Safety

BASF 6

Toxicity and residue testing required for synthetic pesticides



Toxicology and Consumer Safety

BASF 7

Testing tiers required for biochemical pesticides

§158.2050 Toxicology Requirements

Tier I
- Acute toxicity
- Subchronic
- Developmental
- Mutagenicity

Tier II
- *In vivo* cytogenetics
- Prenatal
- Immunotoxicity
- Applicator/user exposure

Tier III
- Reproductive toxicity
- Chronic/carcinogenicity
- Immunotoxicity
- Mammalian germ cell cytogenetic chromosome aberration

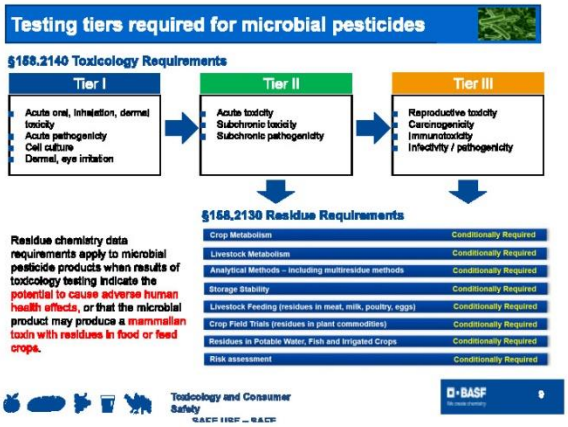
§158.2040 Residue Requirements

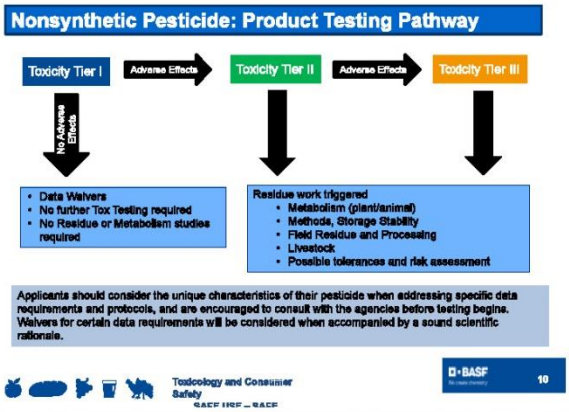
Crop Metabolism	Conditionally Required
Livestock Metabolism	Conditionally Required
Analytical Methods – including multiresidue methods	Conditionally Required
Livestock Feeding (residues in meat, milk, poultry, eggs)	Conditionally Required
Crop Field Trials (residues in plant commodities)	Conditionally Required
Processing (residues in processed food)	Conditionally Required
Residues in Potable Water, Fish and Irrigated Crops	Conditionally Required
MRLs and risk assessment (unless tolerance exempt)	Conditionally Required

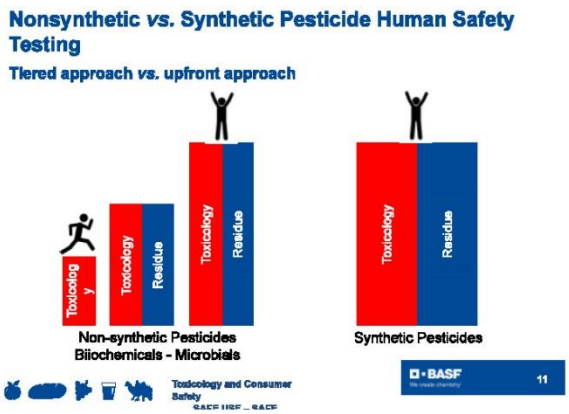
Residue chemistry data requirements apply to biochemical pesticide products when Tier II or Tier III toxicology data are required.

Toxicology and Consumer Safety

BASF 8


Testing tiers required for microbial pesticides
§158.2140 Toxicology Requirements
Tier I
Acute oral, inhalation, dermal toxicity
Acute pathogenicity
Cell culture
Dermal, eye irritation
Tier II
Acute toxicity
Subchronic toxicity
Subchronic pathogenicity
Tier III
Reproductive toxicity
Carcinogenicity
Immunotoxicity
Infectivity / pathogenicity
§158.2130 Residue Requirements
Residue chemistry data requirements apply to microbial pesticide products when results of toxicology testing indicate the potential to cause adverse human health effects, or that the microbial product may produce a mammalian toxin with residues in food or feed crops.
Crop Metabolism Conditionally Required
Livestock Metabolism Conditionally Required
Analytical Methods – including multiresidue methods Conditionally Required
Storage Stability Conditionally Required
Livestock Feeding (residues in meat, milk, poultry, eggs) Conditionally Required
Crop Field Trials (residues in plant commodities) Conditionally Required
Residues in Potable Water, Fish and Irrigated Crops Conditionally Required
Risk assessment Conditionally Required
Toxicology and Consumer Safety
BASF
9


Nonsynthetic Pesticide: Product Testing Pathway
Toxicity Tier I
Adverse Effects
Toxicity Tier II
Adverse Effects
Toxicity Tier III
No Adverse Effects
Data Waivers
No further Tox Testing required
No Residue or Metabolism studies required
Residue work triggered
Metabolism (plant/animal)
Methods, Storage Stability
Field Residue and Processing
Livestock
Possible tolerances and risk assessment
Applicants should consider the unique characteristics of their pesticide when addressing specific data requirements and protocols, and are encouraged to consult with the agencies before testing begins. Waivers for certain data requirements will be considered when accompanied by a sound scientific rationale.
Toxicology and Consumer Safety
BASF
10


Nonsynthetic vs. Synthetic Pesticide Human Safety Testing
Tiered approach vs. upfront approach
Toxicology
Residue
Non-synthetic Pesticides
Biiochemicals - Microbials
Synthetic Pesticides
Toxicology and Consumer Safety
BASF
11


Thank You!
Toxicology and Consumer Safety
BASF
12

附件 8-2 Evolution of the European Context of Risk Assessment, from Chemicals to Biopsticides

RÉPUBLIQUE FRANÇAISE
Liberté
Égalité
Fraternité

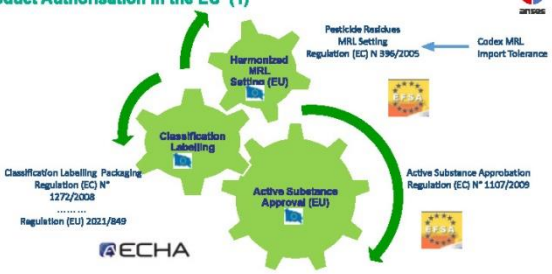
anses

EVOLUTION OF THE EUROPEAN CONTEXT OF RISK ASSESSMENT, FROM CHEMICALS TO BIOPESTICIDES

XAVIER SARDA

GMUS IV

Product Authorisation in the EU (1)



Product Autorisation in the EU. (2)

- Regulation (EC) N°2009/1107
- Uniform Principles (Reg 546/2011…part B for micro-organism)
- Zonal authorisation
- Mutual Recognition within a zone
- All Registration Reports centralised by the European Commission
- Art51: Minor Uses => faster evaluation
- Some national specificities.
  - French catalog of uses

Update on the Pesticides in the EU since GMUS III

Farm to Fork Strategy (2020)

Reduce the amount of pesticide used by % 50 in 2030
Reduce by 50% the use of more hazardous pesticides by 2030

Endocrine Disruption A.S evaluation

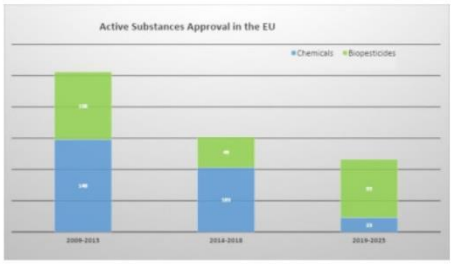
- => 2 new labelling on ED entering into force in April 2024.
- ED HH in Category 1 and Category 2 (Endocrine disruption for human health
- ED ENV in Category 1 and Category 2 (Endocrine disruption for the environment)

Mirror effect: Import tolerance on clothianidin and thiametoxam banned in 2026 for environmental consideration.

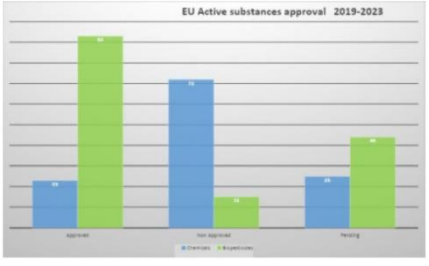
Farm to Fork : Updates to Eu directives

- Sustainable Use of Pesticides (Directive 2009/128/EC)
  - Integrated Pest Management
    - IPM Best Practices

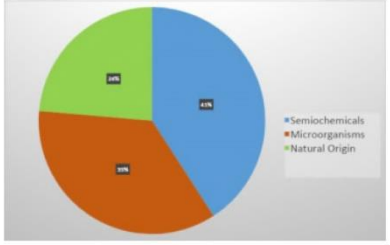
Active Substances Approval in the EU since 2009



EU Active substances status 2019-2023



Biopesticides approved in the EU 2019-2023



EU Assessment for Biopesticides

- Low risk active substance
- Basic substances
- Inclusion into annex Annex IV of Eu Reg 396/205 => no MRL
- Development of specific guidelines (… uniform Principle)

  Guidance on the risk assessment of metabolites produced by microorganisms used as plant protection products SANCO/2020/12258

- at national level

  France : « Liste du biocontrôle » FR:d4cnt.2022-35

  Exclusion H300, H310, H330, H301…….H400, H410

The Bt Case

Comparative phenotypic, genotypic and genomic analyses of *Bacillus thuringiensis* associated with foodborne outbreaks in France
M. Bonis *et al.* PLoS One. 2021 Feb; doi: 10.1371/journal.pone.0246885

- « 20 % of Foodborne outbreaks attributed to *B. Cerus* could be linked to commercial Bt strains »
- Bt reapproved, with restrictions (threshold….)
- Inclusion into annex IV of Regulation 396/2009 on standby
- Change of paradigm?
- Do we need to set MRL and control Biopesticides?

Conclusion

-Biopesticides are now major in term of active substance approval in the EU

-EU regulations have been updated

-New guidelines have been produced

-New challenges appeared for risk assessors and risk managers.

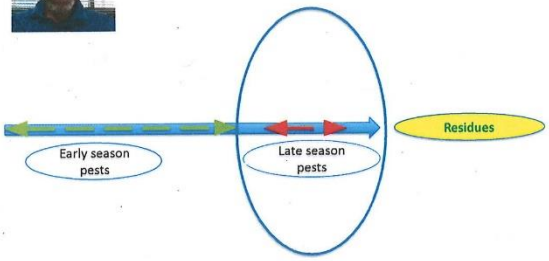
附件 8-4 Development of a Biopesticide Based Pesticide Residue Mitigation Strategy

Development of a Biopesticide Based Pesticide Residue Mitigation Strategy

Presented by Dennis Ndolo

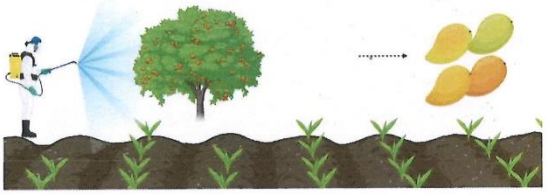
(Part of) The Team

The last application is normally the driver of residues



The strategy….

Application of conventional chemical pesticide + Use biopesticide for last application to protect crop from pests until harvest → Harvest crop with less pesticide residue, thereby complying with MRL standards



Crop	Pesticide causing a residue issue on the crop	Target pest(s) at the end of the season	Relative importance to export issues	PHI and retreatment interval on the label of the conventional pesticide	Biopesticides that can control the target end of season pest
Avocado	Buprofezin	Heart-shaped scale	HIGH	160 days	Soybean oil, Canola oil
Avocado	Pymetrozine	Sucking bug complex	HIGH	21 days	Soybean oil, Mineral oil
Avocado	Acephate	Sucking bug complex	HIGH	35 days	Soybean oil, Mineral oil
Avocado	Methoxyfenozide	False Codelling Moth (FCM)	MEDIUM	30 days	*Beauvaria bassiana*, *Cryptophlebia leucotreta* granulovirus
Avocado	Azoxystrobin	Cercospora fruit spot	MEDIUM/HIGH	28 days	Potassium bicarbonate
Mango	Chlorpyrifos	Mango scale, mealybug	MEDIUM	136 days	*Beauvaria bassiana*, Soybean oil, Canola oil
Mango	Azoxystrobin	Anthracnose	HIGH	21 days	*Aureobasidium pullulans*, Thyme oil, Citric acid
Mango	Carbendazim & Tebuconazole	Anthracnose	HIGH	14 & 21 days	Neem oil

Residue mitigation studies

KENYA (KEPHIS)
Crop: Mango
Pest: Anthracnose
Test substance: Rodazim [carbendazim]
Biopesticide: Neem oil [Azadirachtin]

TANZANIA (TPHPA)
Crop: Avocado
Pest: Lepidopterans [FCM]
Test substance: Matron [methoxyfenozide]
Biopesticide: Cryptogran [*Cryptophlebia leucotreta*]

Phase 1 (Residue decline)

Application* of conventional test substance according to label.

Harvest crop & analyse to determine residue level.

** if a tank-mix of 2x test substances, then a lab analysis is conducted to determine which has the most persistent residue. This substance would then be used for Phase 2.*

Phase 1 – Residue decline study

CARBENDAZIM RESIDUE DECLINE

CARBENDAZIM DECLINE RESIDUE RESULTS ON MANGO

Interval	Sample 1	Sample 2	Average Residue
DAY 0	0.222	0.268	0.245
DAY 3	0.200	0.200	0.2
DAY 7	0.172	0.148	0.16
DAY 10	0.136	0.112	0.124
DAY 14	0.144	0.15	0.147
DAY 21	0.129	0.164	0.147
DAY28	0.114	0.133	0.124

MRLs: no MRL in US (carbendazim is banned)
0.5 ppm in EU
5 ppm for Codex

TEBUCONAZOLE RESIDUE DECLINE

TEBUCONAZOLE DECLINE RESIDUE RESULTS

Interval	Sample 1	Sample 2	Average Residue
DAY 0	0.085	0.116	0.1005
DAY 3	0.071	0.048	0.0595
DAY 7	0.052	0.04	0.046
DAY 10	0.028	0.024	0.026
DAY 14	0.0347	0.027	0.03085
DAY 21	0.02	0.03	0.025
DAY28	0.013	0.018	0.0155

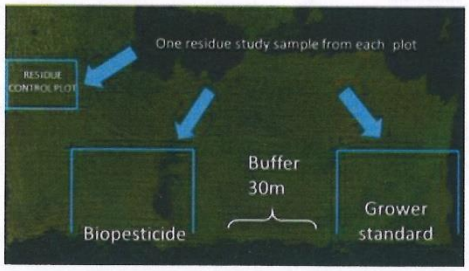
MRLs: 0.15 ppm in US
0.05ppm Kenya and Codex
0.1 ppm in EU

Phase 2 - Introduction of Biopesticide

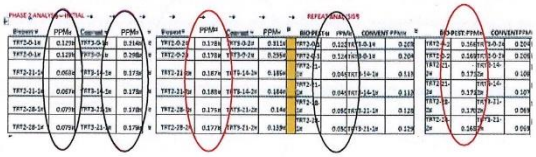
- 2 Replicate Fields - each consisting of 1 control plot (UTC) and 2 treated plots.
- The first treated plot (TRT2) consisted of 2 conventional sprays of CARBENDAZIM (7 days apart) and one biopesticide spray of NEEM OIL which replaced the last conventional application. i.e LAST application replaced by a biopesticide application.
- The second treated plot (TRT3) consisted of 3 conventional applications sprayed 7 days apart with the last application sprayed 14 days before normal harvest.

Test system design

A single field replicate containing two treatments (not to scale).

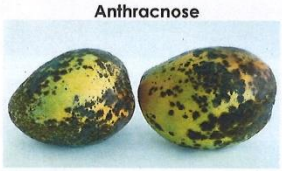


Repeat Analysis – Same Trend



Pest Assessments – Compare efficacy of biopesticide with conventional management

Anthracnose

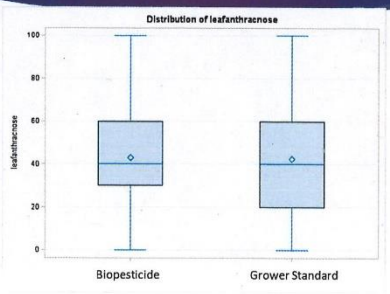


False Codling Moth

Biopesticides

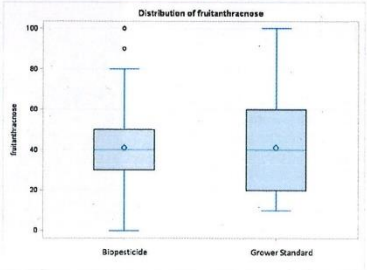
- Anthracnose = 70% Neem oil
  - Only biopesticide option
- False codling moth = Cryptogran
  - Produced in South Africa
  - Compatible with natural enemies
  - Self perpetuating in field
  - No REI or PHI

Neem oil reduced leaf anthracnose



F = 0.08
P = 0.78

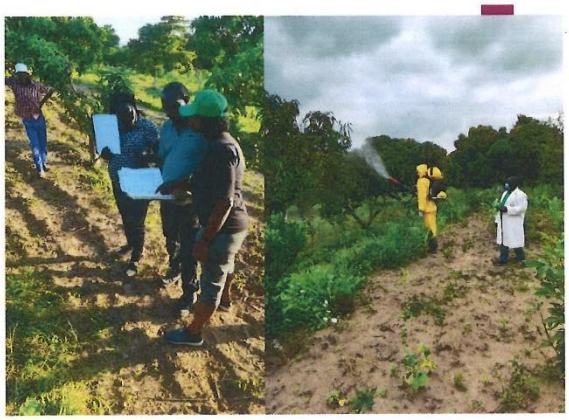
Neem oil reduces fruit anthracnose



P = 0.94

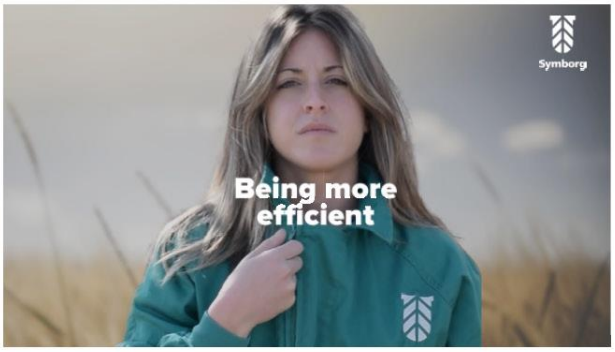
No grower recommendations yet!

- Anthracnose Management = Need additional replicates!
  - Variation in anthracnose infection levels
  - Different climates (rainfall)
- False codling moth
  - Data coming soon



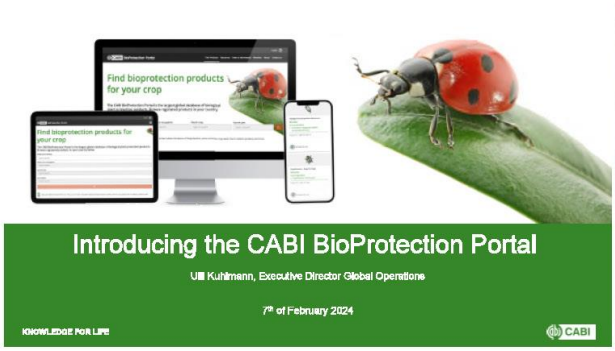
Enhancing trade through regulatory harmonisation and biopesticide-based residue mitigation in the SADC region

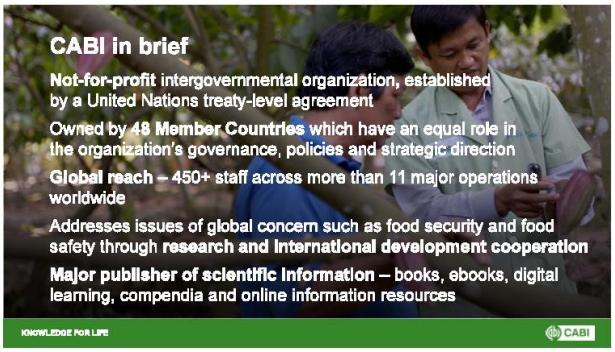
附件 8-4 Symborg Natural Growth

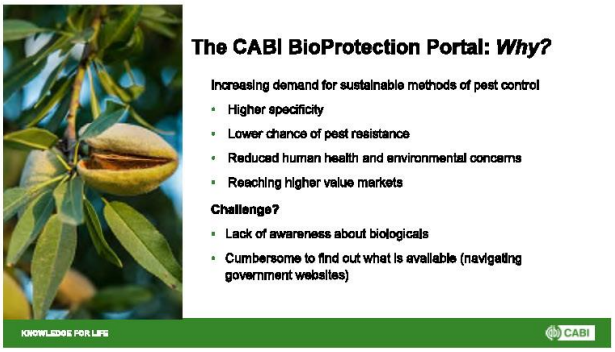


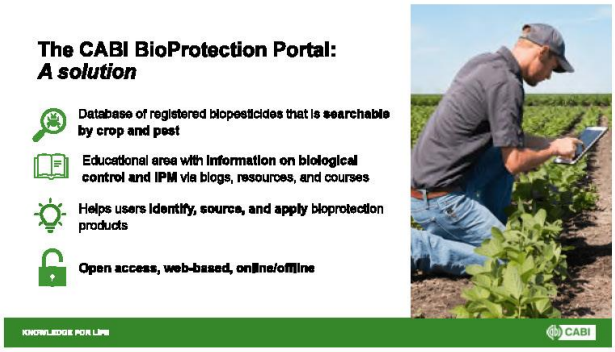

We lead,
together with agribusiness,
the change
world needs
Symborg
Symborg
NATURAL
GROWTH
A Corteva Agriscience Business

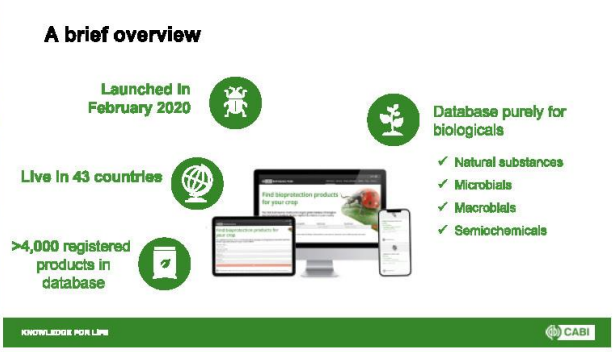
附件 8-5 Introducing the CABI BioProtection Portal

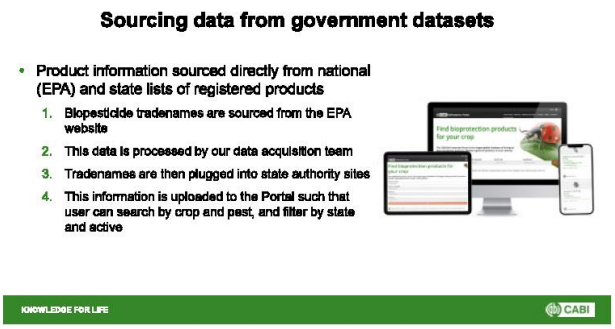




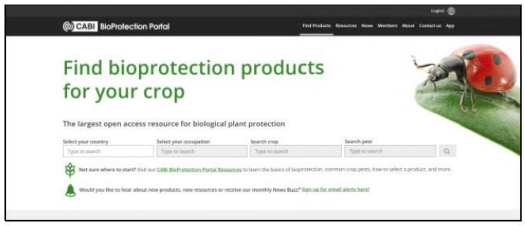








How does it work?



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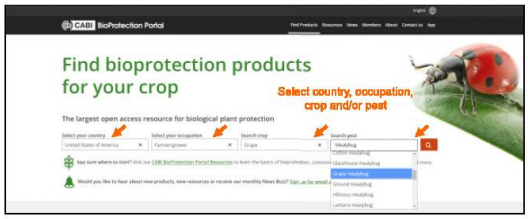
How does it work?

KNOWLEDGE FOR LIFE CABI

How does it work?



Search engine: select the country, occupation, crop and/or pest

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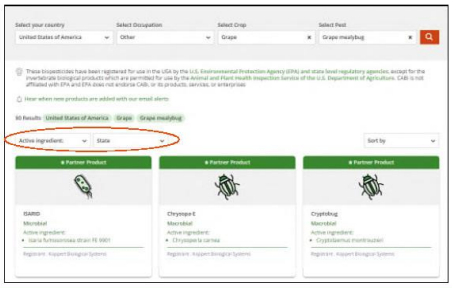

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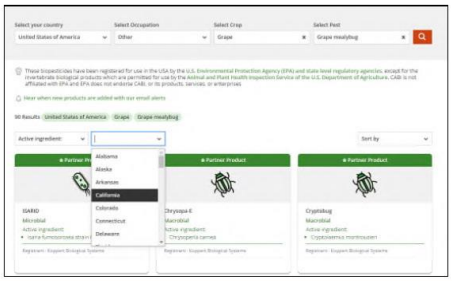

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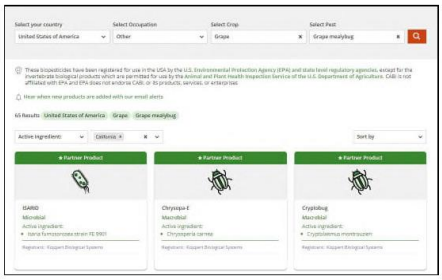

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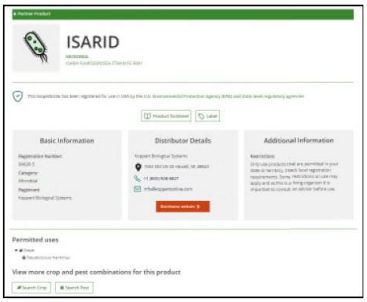

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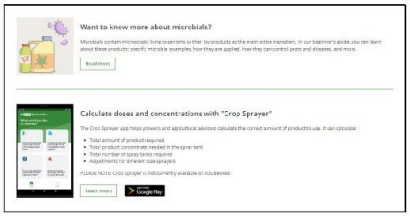

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How does it work?

- Resources and News

KNOWLEDGE FOR LIFE CABI

How does it work?

News Resources

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How is the Portal unique?

- A global, independent, not-for-profit knowledge resource for bioprotection
- Contains only nationally-registered biological plant protection products
- Macrobials, when not nationally registered, added for partner companies
- Data sourced directly from national and federal lists
- Includes educational resources and supplementary guides

KNOWLEDGE FOR LIFE CABI

Our members

Partners

Sponsors

Donors

Associates

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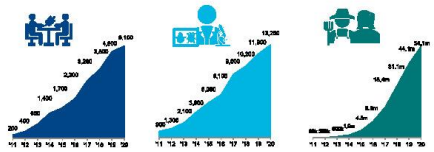
Plantwise – an award-winning global programme

Lose less
>1.5 million queries brought to plant clinics
- on >500 different crops
- diverse problems diagnosed per crop

Feed more
These services have led to, e.g.:
- >20% increase in maize yield
- >30% increase in maize-based household income

Effectively
3:1 BCR and a 54% IRR

Impact & scale (after 10 years of Plantwise)



> 5,000 plant clinics established

> 13,000 plant doctors trained

> 54 million farmers reached

Determined through estimations of primary reach (farmers reached directly through Plantwise activities) and secondary reach (farmers reached indirectly, i.e. receiving advice from farming peers who had obtained information from Plantwise activities).

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PlantwisePlus 2021-2030

Supporting countries to predict, prevent and prepare for plant health threats in the face of a changing climate

Underlying principles: IPM; agro-ecology and climate-smart agriculture; plant health and food systems vision; engagement with diverse stakeholders, including agro-input dealers; promotion of lower risk plant protection products; gender mainstreaming; income generating opportunities.

PlantwisePlus 2030 Goal
75 million smallholder farmers produce more food using safer and sustainable crop production practices, thereby improving food security and rural livelihoods

- Coordinated national and regional pest preparedness and management
- Reduced pesticide risk through increased access to and use of IPM solutions
- Enhanced farmer advisory services

Estimated support: €100 million
- 3 year proof-of-concept finished in 2023;
- 7 year scale-out phase (2024 to 2030)
- Next external review (2026)

KNOWLEDGE FOR LIFE CABI

شكرا جزيلا merci शुक्रिया zikomo xie-xie obrigado ありがとう efharistó kiitos gracias zikomo **thank you** tak ke itumetse asante urakoze danke terima kasih dhanyawaad

Please don't hesitate to contact Ulli Kuhlmann: u.kuhlmann@cabi.org

CABI is an international intergovernmental organisation, and we gratefully acknowledge the core financial support from our member countries (and lead agencies) including:

KNOWLEDGE FOR LIFE CABI

附件 9-1 Regulatory Landscape of Minor Use Pesticides in Canada

Regulatory Landscape of Minor Use Pesticides in Canada

Global Minor Use Summit IV, Madrid
February 5 – 9, 2024

Shiva Ghimire, Ph.D.
Health Evaluation Directorate
Pest Management Regulatory Agency, Health Canada

YOUR HEALTH AND SAFETY... OUR PRIORITY.

Canadian Regulatory Landscape: Outline

1. Regulatory Oversight of Pesticides in Canada
2. Minor Use Program
3. International Initiatives
4. PMRA's Transformation activities

Regulatory Oversight of Pesticides in Canada

FEDERAL
- Registration, MRLs, Use Conditions
- Compliance & Enforcement, and Residue monitoring

PROVINCIAL
- Sale, Use, Storage, Transportation, disposal
- Training, licensing, permits, use restrictions
- Spills and accidents, Compliance and Enforcement

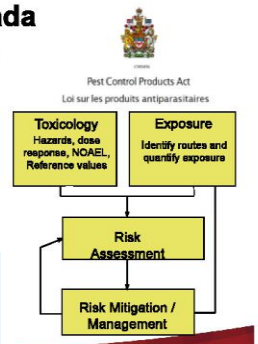
MUNICIPAL
- *Bylaws for municipal lands (e.g., Use restrictions)*

Pest Management Regulatory Agency (PMRA), Health Canada

- **PMRA** administers the *Pest Control Product Act* (PCPA), registers pesticides in Canada, and sets pesticide MRLs
- Re-evaluation and Special Reviews
- Uses scientific risk assessment approach to ensure safety to individuals and the environment, & value assessment

Regulatory Operations & Enforcement Branch: Implements compliance and enforcement (C&E) for pesticides
Canadian Food Inspection Agency: Residue monitoring in foods and C&E

Pest Control Products Act
Loi sur les produits antiparasitaires



Minor Use Program in Canada

- **Minor Use:** A necessary use of a pest control product for which the anticipated volume of sales is not sufficient to persuade a manufacturer to otherwise register and sell the product for that specific use in Canada
  - The active ingredient and the end use product must be registered in Canada
  - Registrant supports the addition of the new use to their label
  - There must be sufficient information to assess the risk and value of the proposed new use

Minor Use – A Cooperative Program

Participants:
- Growers
- Registrants / Pesticide manufacturers
- Pest Management Centre, Agriculture and Agri-food Canada (AAFC)
- Provincial/Forestry Minor Use Coordinators (PMUCs)
- Pest Management Regulatory Agency (PMRA), Health Canada

- Established in 2003
- Data generation supported by AAFC/PMUCs
- Registration reviews – no fees charged by PMRA
- Modelled after the US IR-4 / EPA Minor Use Program

Minor Use: Roles and Responsibilities

Organization	Responsibility
Pest Management Centre, AAFC	Organize and lead priority setting workshop, fund research projects (efficacy/residue), prepare & submit dossiers to PMRA
Provincial Minor Use Coordinators	Work with and represent growers, contribute to priority setting, prepare & submit dossiers to PMRA
PMRA	Provide advice, review minor use submissions and labels, set MRLs
Registrants	Provide technical advice, confirm support and update labels
Growers/Grower Reps/Crop specialists	Identify priority problems, facilitate project implementation and advise on use patterns

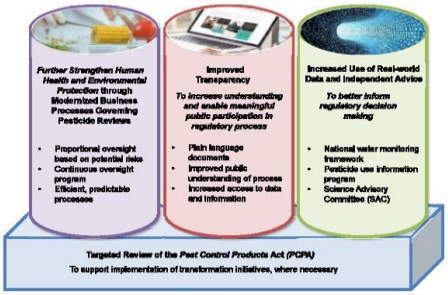
International Initiatives

- Collaborative Minor Use Projects between AAFC and US IR-4
- Joint reviews - PMRA and US-EPA
- Updating residue chemistry crop groupings (as part of the ICGCC) and the Codex Classification of Food and Animal Feeds (as part of CCPR e-WG)
- Codex/JMPR work (MRLs, guidance development, participation at CCPR)
- OECD work (residue definition, novel technology [e.g., drone], guidance development etc.)
- Bilateral collaborations (e.g., Latin America)

World Health Organization

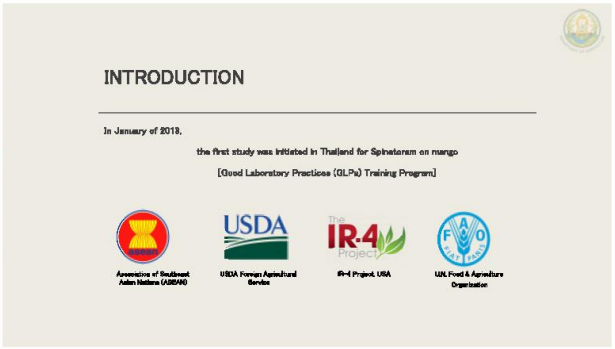
OECD

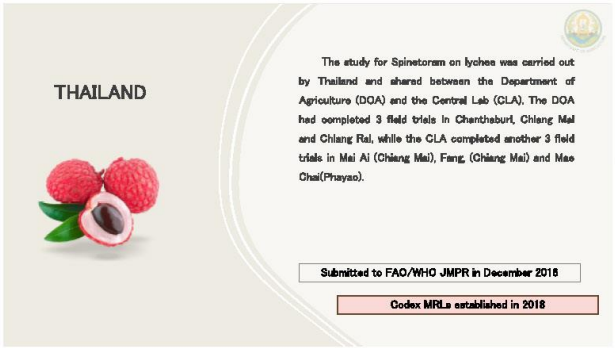
PMRA's Ongoing Transformation Agenda



Thank you very much!

附件 9-2 Evolving Regulatory Landscape: International Perspective





Minor Use Foundation

Benefit for THAILAND

The project helped DOA, THAILAND on providing both theoretical and practical experiences in conducting field trials, laboratory analysis by practice, inlife learning techniques and know-how of GLP studies. It improved the capability of DOA to generate quality data for establishing an MRL based on international guidelines (e.g., OECD-GLP, EPA-GLP, FAO Manuals).

Benefit for THAILAND

- ❑ to the farmer sector of THAILAND with GAP, PHI Label
- ❑ to promote trade on the Thai agricultural produces
- ❑ to government sector (knowledge, networking, good quality data set)
- ❑ to region (Adopted as ASEAN MRLs)

ASEAN Member States (AMSs)

ASEAN Member States (AMSs) also learned and shared experience on the coordination of work sharing and capacity building efforts among AMSs, between government regulatory officials, laboratory, and field technicians, as well as pesticides industries.

Global

This project help improves the trade opportunities and reduce the notification rates from importing country for better trade of THAILAND produces.

Thailand new regulation update.

- Current licenses 4,700, 117 fomulations
- Registration of novel compounds around 108 licenses
- Pre-approved biopesticides; BT, NPV, Protosua

Bio-pesticide that have been registered in Thailand

No.	Name	Number
1	*Bacillus thuringiensis*	84
2	*Bacillus amyloliquefaciens*	1
3	*Bacillus subtilis*	18
4	*Beauveria bassiana*	8
5	Nuclear Polyhedrosis Virus (NPV)	3
6	*Trichoderma harzianum*	5
7	*Trichoderma asperellum*	7
8	*Metarhizium anisopliae*	4
9	*Paecilomyces lilacinus*	3
Total		133

THANK YOU

附件 9-3 Trade of Specialty Crops: An evolving regulatory Landscape

CORTEVA agriscience

Trade of Specialty Crops: An evolving regulatory landscape

Industry Perspectives

Kevin Bosc - Global Crop Protection Advocacy Leader

Global Minor Use Summit IV – February 2024

Core Principles – Specialty Crops

1. Minor Uses = Major Value

- Specialty crops have a high economic value for agri-food chain
- Supporting minor uses is essential

2. Transparency and information sharing

- Proactive and transparent communication on products approvals and MRLs
- Collaboration on supporting minor uses

3. Trade-enabling policies for growers success

- Supporting all growers around the world with innovative solutions
- Advocating for policies enabling trade and market access for all growers

Progress and Challenges for Specialty Crops

PROGRESS	CHALLENGES
International cooperation data generation on specialty crops	Limited number of projects selected, residue & efficacy data are needed
Use of extensions extrapolation between countries based on similarity	Case-by-case, needs generalized implementation Mutual acceptance only at regional level (APEC)
Regulatory incentives for specialty crops in some countries	Need further implementation globally (including Codex),
Codex crop groups updated	Not adopted by majority of members
Effective WTO TBT and SPS notifications	Default levels and residue methods not harmonized

Practical Opportunities for Specialty Crops

- **Facilitating approvals and use extensions:**
  - Joint data generation and label approval in key countries for globalized use extensions
  - Codex review and adoption of MRLs by members
  - Facilitating reviews for minor uses
  - Proportionate risk assessment for biocontrol
- **Addressing missing MRLs:**
  - Recognizing production country MRL as Import Tolerance in importing country (OECD mutual acceptance of data)
  - Positive list systems where highest MRLs passing consumer risk assessment is adopted (e.g., Japan)
  - Import tolerance regulations still needed in key countries
  - Ensuring pragmatic transitional measures in case of MRL lowering

 Enhanced Codex MRL setting for more global alignment

Political Considerations on MRL setting

- Increasing **conservatism in risk assessment** remains a key driver to MRL lowering
- However, MRL setting is increasingly influenced by non-regulatory factors:
  - **Political objections** to set trade-enabling MRLs despite favourable conclusions from regulatory authorities
    - Driven by overly precautionary approaches and/or protectionist grounds ("minor clauses")
  - **Unilateral measures** based on global environmental protection policy objectives
    - Increasing number of WTO Specific Trade Concerns raised on MRLs
- Bigger picture on global trade policy developments
  - Rising geopolitical tensions and instability highlighting strategic importance of trade policy
  - De-risking and strategic autonomy v. free trade
  - MRL and other SPS measures are increasingly part of broader political considerations

 Fostering win-win outcomes for trade in specialty crops

附件 9-4 Navigating MRL Challenges in the Juice Supply Chain

Navigating MRL Challenges in the Juice Supply Chain

Global Minor Use Summit
Feb 2024 Madrid, Spain

Tatiana Campos
IFU Executive Director

Behind the name

International Fruit and Vegetable Juice Association (IFU).

Founded in 1949 in Paris, France.

Mission: Serve as the global voice of the fruit and vegetable juice industry, championing the production and consumption of juices and related products worldwide.

Main topics

- **Nutrition:** •Nutritional profiling / Sugar Tax and Claims
- **Labelling:** •Front of Pack Nutrition Labelling, Allergen Labelling;
- **Pesticide:** •New MRLs, revocation of old pesticides and introductions of new ones.
- •Control of Food Fraud.
- **Additives:** •What additives are approved in Juices, Nectars and Juice based beverages.
- **Contaminants:** •Review of levels of Lead and Cadmium in juices. Patulin.
- **Hygiene:** •HACCP, standard of water used in food processing, allergen controls.
- **Methods of Analysis:** •Review of Codex methods approved

Commissions & WGs

With regard to MRLs, these topics are addressed in both the **Legislation Commission** and the **Pesticides Working Group**, where we also discuss the CCPR agenda.

Our main challenges and objectives

- Increased Regulation in the EU, a Key Market.
- Emerging Disease Challenges: The Case of Greening
- Processing Factors: in some cases still a grey zone

✔ Avoid unnecessary economic harm, barriers to international trade and food waste.
✔ Promote Harmonized Values so that "trade enabled MRLs" are adopted.

Thank you!

Tatiana Campos
tatiana@ifu-fruitjuice.com
+55 11 918446776

附件 9-5 CAMINO DE PARAGUAY HACIA EL CUMPLIMIENTO DE ESTÁNDARES DEL MERCADO JAPONÉS

CAMINO DE PARAGUAY HACIA EL CUMPLIMIENTO DE ESTÁNDARES DEL MERCADO JAPONÉS

ING. AGR. LETICIA SORIA
DIRECCIÓN DE CALIDAD, INOCUIDAD Y AGRICULTURA ORGÁNICA (DICAO)

GOBIERNO DEL PARAGUAY | CALIDAD Y SANIDAD VEGETAL Y DE SEMILLAS

DESAFÍOS EN LAS EXPORTACIONES DE SÉSAMO

Rechazos por superar los LMR

- Codex: sin LMR establecido para sésamo
- Japón: alto porcentaje de LMR por defecto (0,01ppm)
- Ningún plaguicida registrado en Paraguay para uso en sésamo

Mayor problema!

APOYO DEL GOBIERNO EN LA BÚSQUEDA DE SOLUCIONES

- Prohibición de uso de carbaril / Certificación de empresas
- Mejora en las inspecciones (muestreo y análisis)
- Colaboración del gobierno japonés / JICA
- Ensayos de residualidad

INOPAR



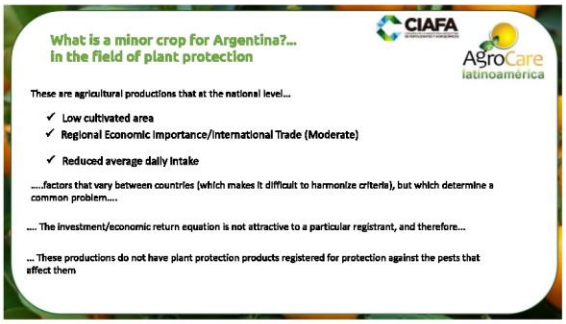

ESTABLECIMIENTO DE NORMAS DE USO Y LMR NACIONALES

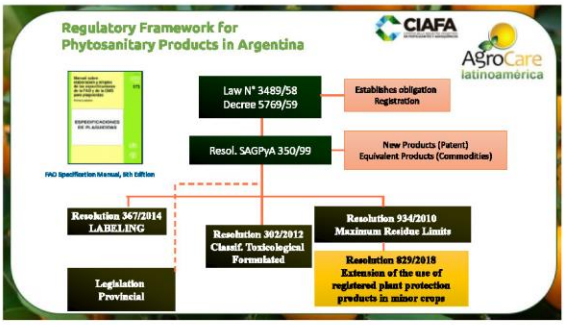

Plaguicida	LMR (ppm)
Clorpirifós	0.05
Benzoato de emamectina	0.01
Cletodim	0.01
Azoxystrobin	0.06
Tebuconazole	0.6
Betacyflutrina	0.08

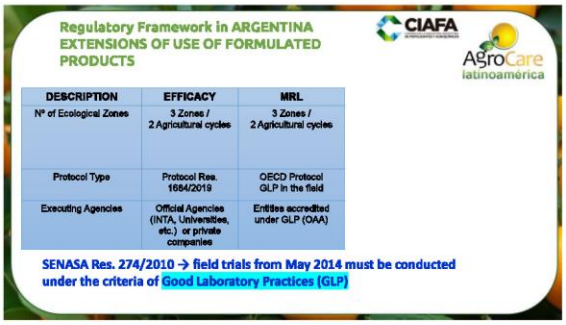
GRACIAS POR SU ATENCIÓN

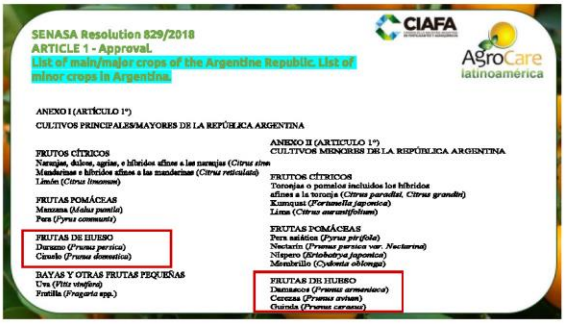
GOBIERNO DEL PARAGUAY | CALIDAD Y SANIDAD VEGETAL Y DE SEMILLAS

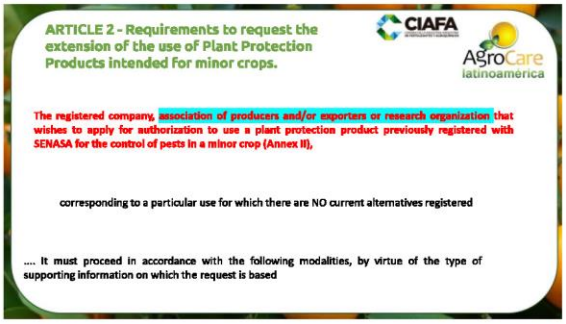
附件 9-6 National Minor Use Programs: Example ARGENTINA, Cost/Benefit and Evolution

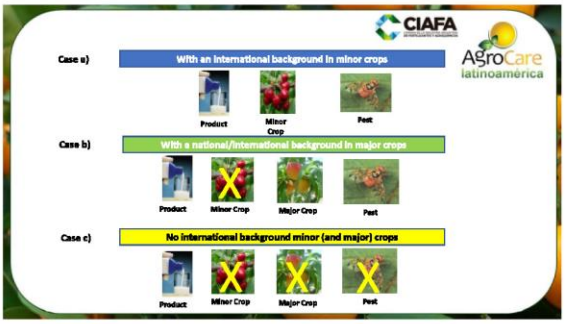


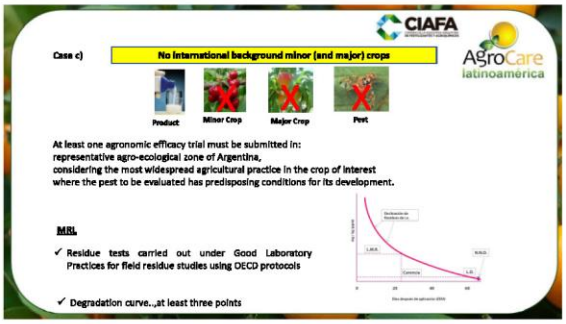












Harmonization within the LATAM

QUESTION: Are there systematic differences in pesticide residue concentrations between zones?

- There is no harmonization with regard to the creation of MRLs at the LATAM level.
- Main difficulty: different pesticide registration standards.
- Local tests? Extrapolation with data from other GAP? = cGAP
- National MRLs or Codex?

N Arg = S Bra
Caribeen
Uruguay=Arg
Chile = W Arg
Bolivia / Bra / Py
Col – Peru

cGAP

Areas of future work

1. **Support for Minor use programs in LATAM**
   - Work sharing and share experience
   - Joint data generation programs - **Regional Plant Protection Organizations**
   - Harmonized registration processes for minor crops: same cGAP and Agroecological Zone
   - Capacity building activities
2. **Ease of new registrations:**
   - Explore crop grouping, ease registration requirements through harmonized approaches
3. **Harmonization**
   - Explore future COSAVE/MERCOSUR/CAN harmonization

Global Situation - MRLs

- Governments Seek to Regulate Pesticide Residues to Ensure Agricultural Products Are Safe for Consumption

- Setting MRLs is a very complex and expensive task.

- International standards bodies, such as the Codex Alimentarius Commission, set voluntary MRLs for global use.

- The impacts of the lack of MRLs can vary by country and are particularly problematic for farmers exporting minor crops (they have fewer MRLs in place) and for generic pesticides

Codex – CCPR Periodic Review of Ancient Compounds

- BPA compounds change over time.
- Older Codex MRLs may not reflect current usage patterns.
- Toxicological studies and residue tests do not comply with current standards.
- CCPR, and JMPR, there have been concerns about the maintenance of official Codex MRLs (CXLs) that may no longer reflect current information.
- As a result, old compounds are re-evaluated under the CCPR Periodic Review Programme

Codex – Focus on Generics and Re-Evaluations

- NATIONAL CODEX GROUPS – KEYS TO FOLLOW-UP

Need for members to be able to follow re-evaluations/renewals in advance
KEY: Establishment of CCPR schedules and priority lists for the evaluation of pesticides by JMPR

TABLE 2A: PRIORITY LISTS OF PERIODIC REVIEWS – 2026 & BEYOND

TABLE 2B: PERIODIC REVIEW LIST (COMPOUNDS LISTED UNDER 15 YEAR RULE BUT NOT YET SCHEDULED OR LISTED)

NATIONAL GROUPS SHOULD FOLLOW AND STUDY THE LISTS IN ORDER TO ANTICIPATE THE NEED FOR DATA IN ADVANCE.

Summary – Targeting Generic Pesticides

- Train related actors on Codex procedures. There is currently a lot of ignorance about the procedure for submitting supporting information and it is a great challenge to find the right channels for training to be effective. !!!! NATIONAL COMMITTEES!!!!

- Availability of information. The post-patent industry generally carries out its registration processes by equivalence according to FAO standards. The availability of information was limited. However, nowadays the post-patent industry is investing more and more in having quality information.

- Articulation of interests. Present information together (TASKFORCE). The challenge is to make everyone informed, organized, and willing to cooperate.

- Private Standards. They set MRLs far removed from what Codex dictates or remove approved products from positive lists. One of the great challenges to get the industry interested in defending MRLs is precisely to demonstrate that struggles can be effective.

Challenges and Concerns – Generics Industry

Table ES.1 Challenges and concerns related to establishing and complying with MRLs

Issues	Challenges and concerns	Examples of issues
Approving/renewing active substances and establishing MRLs	Complex and costly data requirements increase costs and may limit pesticide availability for growers.	• Testing and data collection • Minor crops and crop groupings • Generic pesticides

United States International Trade Commission

Global Economic Impact of Missing and Low Pesticide Maximum Residue Levels, Vol. 1

Table: highlights the major challenges and concerns faced by stakeholders at each step in the pesticide registration and MRL establishment process, as well as the costs of compliance and noncompliance with existing MRLs.

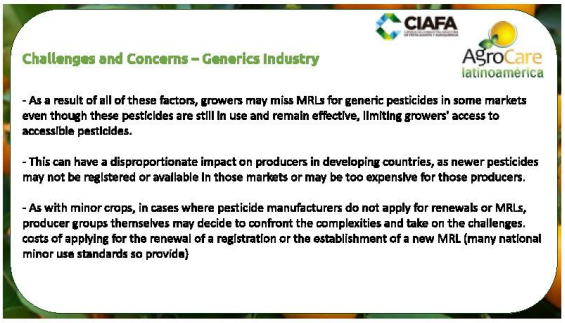
Fuente: United States International Trade Commission. Impact of Missing and Low Pesticide Maximum Residue Levels. June 2020
Publication Number: 5071

Challenges and Concerns – Generics Industry

- Maintaining or setting MRLs for generic pesticides (i.e., those that are no longer covered by a patent) presents particular challenges

- Generic pesticide producers face challenges when it comes to renewing registrations and submitting MRLs.

- Some of these difficulties are due to evolving testing and data requirements, which may require additional data collection and
Expensive


Challenges and Concerns – Generics Industry
- As a result of all of these factors, growers may miss MRLs for generic pesticides in some markets even though these pesticides are still in use and remain effective, limiting growers' access to accessible pesticides.
- This can have a disproportionate impact on producers in developing countries, as newer pesticides may not be registered or available in those markets or may be too expensive for those producers.
- As with minor crops, in cases where pesticide manufacturers do not apply for renewals or MRLs, producer groups themselves may decide to confront the complexities and take on the challenges. costs of applying for the renewal of a registration or the establishment of a new MRL (many national minor use standards so provide)


THANKSSSS!!!!!
Ing. Agr. Daniel Mazzarella
Technical Coordinator of CIAFA
associated with AgroCare Latam

附件 10-1 ECOWAS and Sahel Regional Harmonization for MRLs: Good Regulatory Practices (GRPs)

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Minor Use Foundation -
Madrid, Spain | July 4-9, 2024

ECOWAS AND SAHEL REGIONAL HARMONIZATION FOR MRLs: Good Regulatory Practices (GRPs)

Dr Gbemenou Joselin Benoit Gnonlonfin, PhD
Regional coordinator, Sanitary & Phytosanitary Standards Advisor& Entomologist, Plant Protection

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The ECOWAS Commission, Abuja, Nigeria

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INSTITUTIONAL ARRANGEMENTS

15 MS + Chad + Mauritania

8 MS (all francophone)

African Union
WORLD BANK GROUP
giz
FAO
AGRHYMET
USAID FROM THE AMERICAN PEOPLE
USDA
IITA
cabi
World Health Organization
Minor Use Foundation
COLEAD
CORAF/WECARD
UEMOA
STDF

Still growing …

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KEY REGULATORY FRAMEWORKS (1)

- **ECOWAP**: Strategic policy for the 2016-2025 ECOWAS Agricultural Policy (ECOWAP/CAADP)
  - SO1: Deeper Economic, Trade and Social Integration
  - SO4: Sustainable & Inclusive Agriculture, Industrial, and Intellectual Productivity
- Harmonized Regulation C/REG.21/11/10 related to the structural and operational rules for plant health, animal health and food safety in the ECOWAS region [(Art. 13(Establishment; Art. 22 (harmonization); Art. 25 (supporting risk assessment)]
- Harmonized Regulation C/REG.3/05/2008 on the rules governing pesticides registration in ECOWAS region

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KEY REGULATORY FRAMEWORKS (2)

- West Africa Pesticide Registration Committee (WAPRC) = 2 Sub committees (CSP + Humid Zones); 17 countries of West Africa and the Sahel
- Continental level: AUC-SPS policy framework and Annex 7 of the AfCFTA:
  - Food safety strategy for Africa, 2021 (adopted, AUC)
  - Plant health strategy for Africa, 2021 (adopted, AUC)
  - Animal health strategy for Africa, 2018 (adopted, AUC)

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Functional regional food safety regulatory convergence established, Abidjan, Cote d'Ivoire, 18-22 July, 2022

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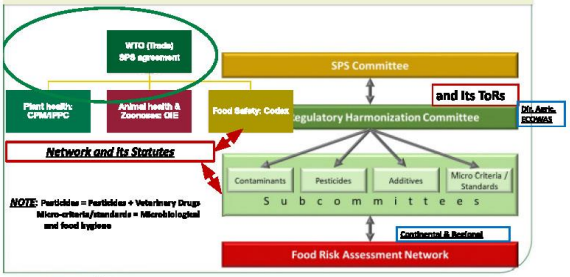
Governance structure



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SCOPE: Major categories of food standards that can be amenable to convergence

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Regional network on data generation for CODEX work established

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Mechanism for Food safety laboratories network in West Africa and Sahel

Objectives

- Generate data to strengthen CCPR, CCRVDF, CCCF, CCFA
- Promote national, regional and international cooperation and information-sharing
- Promote access to accredited methods across the region
- Build and operationalize (strengthen) a network of experts

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- Pesticide Residues & Residues of Veterinary Drugs: in collaboration with MUF, US-Codex, USDA-FAS
- **Pesticides (Lead laboratory: LCSSA, Benin)**
  - 1. Okra (Insecticide: Sulfoxaflor and Proquinazid)
  - 2. CoCoa (Methalaxil)
  - 3. other crops of interest

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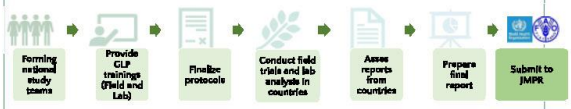
Conducting MRLs field trials for required data generation: a project document available and ongoing discussion for support and implementation



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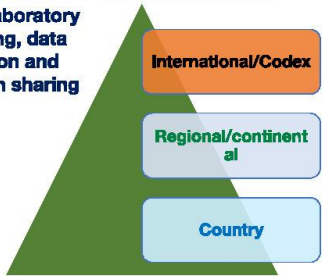
Pyramid: laboratory networking, data generation and information sharing



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WEST AFRICA PESTICIDES REGISTRATION COMMITTEE, WAPRC– REGIONAL HARMONIZATION

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Pesticides regulatory background

CILSS' common regulations on pesticides

WAEMU' Regulation on pesticides management

ECOWAS' pesticides Regulation

Harmonization of the rules governing pesticides registration and management in the ECOWAS-WAEMU-CILSS region since 2010

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Legal frameworks

- **CILSS** : Common regulation for pesticides registration No 8/34/CM/99 from12/16/1999 (Revised version).
- **ECOWAS** : Regulation C/Reg.03/05/2008 on harmonization of the rules governing pesticides registration in ECOWAS region from 05/2008.
- **UEMOA (WAEMU)** : Regulation No. 04/2009/CM/UEMOA on the harmonization of rules governing the registration, marketing and control of pesticides within the WAEMU from 03/27/2009.

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Legal frameworks

- **ECOWAS enabling Regulation 02/06/12**; on the powers, organization and functioning of the West African Committee for the Approval of Pesticides.
- **Decision 13/moc of April 2013**, of the President of the ECOWAS Commission mandating CILSS for the establishment and operationalization of the WAPRC and NPMCs
- **Tripartite agreement in the field of pesticides** signed by ECOWAS, UEMOA and CILSS in June 2018
- **Decisions n°0006/SE-CILSS/2020** of the Executive Secretary of CILSS establishing the WAPRC Coordination Unit in CILSS
- **Decision n°007/SE/SEA/UAM-GRH/2020** of the Executive Secretary of the CILSS transferring the Permanent Secretariat of the SPC (CSP) to the WAPRC.

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Key provisions of the regional legal frameworks

- **Pesticides registration prior to their marketing in the region is mandatory;**
- **Establishment of regional body for pesticides' quality assessment and registration and for the coordination of pesticide management in the region;**
- **Institution of regional pesticide management instruments;**
- **Empowerment of the member States in the implementation of pre- and post-registration activities of pesticides.**

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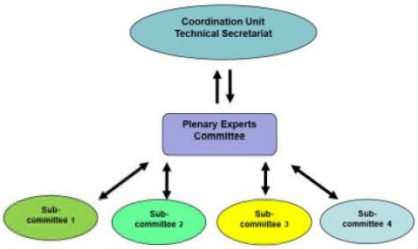
Governance of WAPRC



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Implementation arrangement

A regional approach with 3 levels taking into account the entire life cycle of pesticides

Pre-registration	Registration	Post-registration
Experimentation	Evaluation Approval	Control Dissemination Surveillance
National (NRS coordinated by NCPM)	Regional (WAPRC)	National (Various stakeholders Coordinated by NCPM)

Scientific assessment of registration files (Risk assessment)

1. Administrative informations
2. Phys–chem file
3. Bioefficacy file
4. Analytical file
5. Toxicology file
6. Environnement / Ecotoxicology file
7. Residues file
8. Labelling and packaging

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Structures and infrastructures

- **Structures**
  - West African Pesticides Registration Committee (WAPRC) for Pesticides application files' assessment and approval, to which the Sahelian Pesticide Committee (SPC) has been transferred,
  - National Pesticide Management Committees (NPMCs),
  - Research structures of the different countries.
- **Infrastructures**
  - Laboratories for pesticides analysis and quality control in the region,
  - Laboratories for pesticides residue analysis in the region,
  - Laboratories for the implementation of pesticides toxicology and ecotoxicology' studies in the region.

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Harmonized regional tools validated

- **Four pesticides registration application files setting out data required for pesticides registration in the subregion:**
  - One registration application file for chemical pesticides in agricultural use,
  - One registration application file for chemical pesticides in public health use,
  - One registration application file for biopesticides based on micro-organisms (in agricultural and public health use) and,
  - One registration application file for biopesticides based on natural substances (in agricultural and public health use).

- **Near than fifty harmonized protocols (frame and specific) for pesticides bio efficacy assessment.**

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Harmonized regional tools validated, cont.

- **One pesticide inspection and control manual;**
- **Guidelines for the establishment of the NPMCs;**
- **Guidelines for conducting pesticides'health and environmental effects monitoring;**
- **A platform for the processing of pesticide registration applications and pesticide management in the region called the West Africa Pesticides Management Integrated System (WAPMIS).**

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Regional instruments for pesticide management

- **Five regional instruments set by regional regulation :**
  - **The list of registered pesticides or those with a PAS,**
  - **The list of pesticides under toxicovigilance,**
  - **The list of severely restricted pesticides,**
  - **The list of banned pesticides,**
  - **The list of authorized pesticides at national level.**

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Next Steps

- Establishment of the NPMCs where it does not exist yet;
- Operationalization of the provisions of the interim period before the full operationalization of the WAPRC.

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Other functional regional harmonization mechanism

6th - Annual meeting of the Regional Taskforce of NPPOs and Partners in West Africa and the Sahel and Preparation for the meeting of the Commission on Phytosanitary Measures (CPM-17)

- Regional consultation and information sharing
- Priority setting and planning
- Harmonized and Common position on matters of interest

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Successes and learnings: benefits of implementation of good regulatory practices (GRPs)

- ✔ Regional coordination and information sharing improved
- ✔ Rapid alert , decision-making and coordinated actions improved
- ✔ Interest and participation in SPS-related activities improved (Codex, IPPC, WOAH, WTO SPS)
- ✔ Better understanding, domestication and compliance to regional and international best practices improved
- ✔ Countries incomes increased
- ✔ Confidence and trust built among countries and stakeholders
- ✔ Planning together and implement together; built synergies
- ✔ Resources mobilization improved

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Key Challenges & Proposed Solution

- ✔ Quick turnover in the national government system
- ✔ Beyond ECOWAS mandate, however, advice/recommends member States to ensure continuity and sustainability of interventions
- ✔ Inconsistency of some Member State participation or availability in a timely manner to ensure complete involvement and inclusivity for ownership
- ✔ Online meeting /online participation/improvement on standard communication
- ✔ Delays in procurement process
- ✔ Fast track process

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Central Business District
PMB Box 401 - Abuja FCT - NIGERIA

Agence Régionale pour l'Agriculture et l'Alimentation :
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Thank you for your kind attention!

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附件 10-2 Introduction of the European Minor Uses Coordination Facility & Overview of Avaliable Information on Minor Uses Work in Europe

GLOBAL MINOR USE SUMMIT IV: PANEL ON INTERNATIONAL COLLABORATION

INTRODUCTION OF THE EUROPEAN MINOR USES COORDINATION FACILITY & OVERVIEW OF AVAILABLE INFORMATION ON MINOR USES WORK IN EUROPE.

ANTOINE MARTIN & MUCF TEAM
2024-02-5/9
MADRID, SPAIN

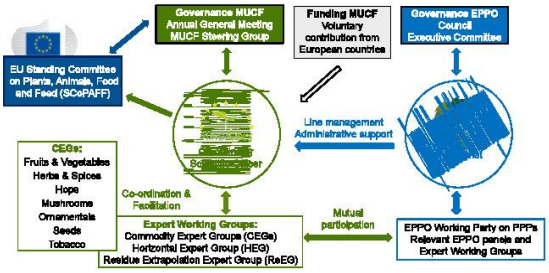
ABOUT THE EUROPEAN MINOR USES COORDINATION FACILITY (MUCF)

- **Established in 2015**, initially funded by the EU and the governments of France, Germany and the Netherlands for 3 years. Since 2019, funding has been dependent on voluntary contributions from European countries.
- 4 staff members: Coordinator, Scientific Officer, IT Officer (vacant), Administrator + Regulatory consultant (pending).
- The MUCF's **Mission** is to support European stakeholders in closing crop protection gaps in minor uses:
  - It coordinates **collaboration** and **information exchange** to improve the availability of sustainable crop protection solutions within an IPM framework.
  - The objective is to enable farmers to produce high-quality crops and contribute to sustainable European agriculture.
- The Facility is **service-oriented** towards the MUCF experts. It aims to build **trust and collaboration** between different European stakeholders.

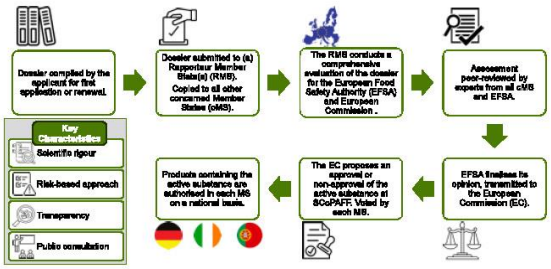
MUCF MAIN FIELDS OF ACTIVITY & CORE COMPETENCIES

MUCF Meetings	Database EUMUDA	Information Exchange/ Awareness-raising
• Host & facilitate MUCF Commodity Groups (CEG), Residue Expert Group (ReEG) and Horizontal Expert (HEG) meetings twice a year. • Organise meetings between stakeholders to discuss possible solutions and approaches for identified minor uses needs.	• Host & further develop the European Minor Uses Database (EUMUDA). https://www.eumuda.eu • Implement & collect minor use needs and priorities, minor & major uses, minor & major crops, and crop acreage data information. • Projects on identified PPP gaps (Expert Groups approved, data not public).	• Coordinate & support minor uses work among European countries and stakeholders. • Address regulatory hurdles & minor uses issues. • MUCF newsletter • EUMUDA latest news • LinkedIn #LetsTalkAboutMinorUses #MinorUsesMajorImportance

MUCF ORGANISATIONAL STRUCTURE & GOVERNANCE



EU PESTICIDE APPROVAL PROCEDURE: HOW DOES IT WORK?



MINOR USES DEFINITION AND LEGAL FRAMEWORK

- Definition of minor uses according to Regulation (EC) No 1107/2009 – Article 3(26):

'Use of a plant protection product in a particular Member State on plants or plant products which are: — National dimension

(a) not widely grown in that Member State, or — Minor crop

(b) widely grown to meet an exceptional plant protection need' — Minor use on a major crop

- Regulatory framework:
  - Regulation (EC) 1107/2009: Placing PPPs on the market.
  - Sustainable Use Directive 2009/128/EC.
  - Regulation (EC) 396/2005: PPP Residues.
  - National requirements and definitions.

The lack of a harmonised definition of a minor use is an obstacle for the authorisation of PPPs on minor uses.

EXPLANATORY NOTE ON MINOR USES PROCEDURES ACCORDING TO REG. (EC) 1107/2009

- Endorsed by SCoPAFF in 2022.

Objectives:

- To encourage European countries to take a consistent approach for:
  - The evaluation of dossiers.
  - The use of the risk envelope approach.
  - The use of relevant extrapolation tables and extrapolation possibilities for residues.
- To stimulate the practical implementation of Regulation (EC) No 1107/2009, reduce obstacles for mutual recognition of minor uses between European countries and to encourage harmonisation.
- To explain the application procedures to professional users, agricultural organisations, official or scientific bodies involved in agricultural activities and other stakeholders.

Download

MUCF MINOR USES SURVEY 2022

- **Scope:** Provide an overview of information and compiled data on minor uses work and procedures in several European countries.
- Survey comprised 7 chapters:
  - Responsibilities, definition, data on minor uses and minor crops.
  - Trials.
  - Article 51 applications (extension of authorisation for minor uses).
  - Risk assessment.
  - Mutual recognition.
  - Draft Registration Report.
  - General topics.
- 22 countries participated in the 2022 survey.
- Full report to be available in first quarter of 2024.

MAIN OUTCOMES OF THE MINOR USES SURVEY 2022

- **Risk assessments:** Importance of national requirements for the risk assessments. The national law, if it has different requirements, overrules the European law in case of risk assessment.
- **Definition of minor crops and uses:** Diversity of criteria to define a minor crop/minor use in the European countries. Mostly used:
  - Acreage (m²)
  - Daily consumption
- **Production value:** Although minor crops are grown on lower acreage compared to major crops (mostly below 10% of the total cultivation acreage), the generated production value is high (7 to 49% of the total agricultural production value).

These outcomes provide a basis for future work.

EUMUDA DATABASES: AVAILABLE DATA AND FURTHER DEVELOPMENT

EUMUDA table of needs https://www.eumuda.eu/database/table_minor_uses
- The table of needs display minor uses gaps and information on the urgency and occurrence of needs in Europe, shared with the MUCF by the national MUCF contact points.
- The MUCF CEGs focus on closing these gaps by setting up projects (trial data generation and sharing).

Minor/major crops database https://www.eumuda.eu/database/minor_major_crops
- Database of the crop status in the European countries + criteria to define a minor crop.
- 12 countries included for now: Austria, Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Ireland, Latvia, Portugal, Switzerland and United Kingdom, and more countries to be included in the future.

EUMUDA TABLE OF NEEDS: OVERALL MOST PRIORITISED NEEDS

Rank	Pest	Pest (Common name)	Crop
1.	*Drosophila suzukii*	Spotted wing drosophila	Raspberry
2.	*Drosophila suzukii*	Spotted wing drosophila	Strawberry
3.	*Peronospora destructor*	Downy mildew	Onion
4.	*Delia radicum*	Cabbage root fly	White cabbage
5.	*Chamaepsila rosae*	Carrot fly	Carrot
6.	*Drosophila suzukii*	Spotted wing drosophila	Blueberry
7.	*Drosophila suzukii*	Spotted wing drosophila	Sweet cherry
8.	*Delia antiqua*	Onion fly	Onion
9.	*Tetranychus urticae*	Two-spotted spider mite	Raspberry
10.	*Fusarium oxysporum*	Basal rot	Onion

Download

EUMUDA TABLE OF NEEDS: MOST PRIORITISED NEED PER CEG

CEG	Pest	Pest (common name)	Crop
Fruits & Vegetables	*Drosophila suzukii*	Spotted wing drosophila	Raspberry
Fruits & Vegetables	*Peronospora destructor*	Downy mildew	Onion
Tobacco	*Peronospora hyoscyemi*	Downy mildew	Tobacco
Hop	*Pseudoperonospora humuli*	Downy mildew	Hop
Ornamentals	*Frankliniella occidentalis*	Western flower thrips	Ornamental herbaceous plants
Mushrooms	*Lecanicillium fungicola*	Verticillium	Button mushroom
Herbs and Spices	*Peronospora belbahrii*	Downy mildew	Basil
Seeds	*Myzus sp.*	Aphids	Seed production of vegetable crops

COMMUNICATION AND AWARENESS-RAISING

- MUCF participates in several meetings, conferences and working groups to **raise awareness** about minor uses hurdles:

copa*cogeca ABIM Annual Biocontrol Industry Meeting OECD GLOBAL MINOR USE SUMMIT IV European Commission CropLife

- In 2024, the MUCF intends to **strengthen its collaboration** with the PPP industry.

DISCUSSION POINTS

- Decline of the number of available active substances in EU.
  - Decline of PPP industry investment in new active substance development.
  - Farm to Fork strategy with two mains targets:
    - Target 1: - 50% **in use and risk of chemical pesticides** by 2030.
    - Target 2: - 50% **in use of most hazardous pesticides** by 2030.

Increase in the number of minor uses gaps in the near future.

WHY IS IT IMPORTANT TO CONTINUE & EXPAND THE WORK ON MINOR USES?

- Preserving **agrobiodiversity** and improving **ecological resilience.**
- Enforcing **European food security** and the **sustainability** of European agriculture in the long term.

"Minor uses production should be considered as an ecosystem service".

- Diversifying agro-ecosystems (e.g. habitat fragmentation) benefits **crop/pollination** systems.
- Positive effects on **human health** (nutritional diversity) and **mental well-being** (landscape diversity).
- **Cultural and traditional importance** of minor crops in local food culture and heritage.
- Building **durable ecosystems**, more capable of withstanding the impact of climate change.

ANY QUESTION?

MinorUses Major Importance

European Minor Uses Coordination Facility (MUCF) hosted by EPPO

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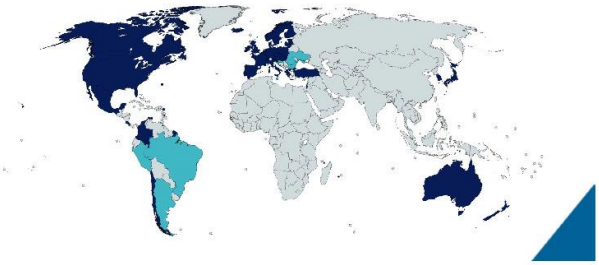
附件 10-3 OECD Pesticides Programme

OECD Pesticides Programme

Maria Trainer, Ph.D.
Executive Director, Registration Management
Australian Pesticides and Veterinary Medicines Authority (APVMA)

The OECD….



OECD Working Party on Pesticides

- Assists member countries to develop and implement innovative tools for testing, assessment and management of pesticides;
- Facilitates the optimal use of resources by providing a forum for identifying and overcoming obstacles to work sharing;
- Assists in minimising non-tariff barriers in the trade of pesticides by aligning data requirements and assessment approaches.

OECD Working Party on Pesticides

- Develop practical and harmonised tools that countries can use to implement their legislations regarding the safe use of pesticides
  - Test Guidelines
  - Electronic tools
  - MRL calculator
  - Joint reviews/work-sharing
  - Residue definitions
- Facilitate minor use registrations

Current Projects

- Development of guidance on data requirements to support pesticide application by RPAS
- Revision of guidance document on residue definition
- Development of guidance on residues in honey
- Revision of test guideline on stability of pesticide residues in stored commodities and guidance on analytical methods
- Consensus document on *Beauvaia bassiana* and *Bacillus amyloliquefaciens*

Completed Projects – some examples

- Guidance to address and solve minor use gaps
- Guidance on baculoviruses as PPPs
- Revision of issue paper on microbial contaminant limits for microbial pest control products
- Considerations for human health risk assessment of externally applied dsRNA-based pesticides
- Innovating microbial pesticide testing: Conference proceedings
- Overview of approaches to handle AMR related to microbial pesticides

Guidance on Addressing Minor Uses

Single source document of information for solving minor use gaps

Document content	
1. Minor Use Programs (examples and components)	
2. Defining Minor Uses (country/regional definitions)	
3. Databases	• Project databases • MRL databases • Registration databases
4. Risk Assessment Tools	• Crop grouping schemes • Extrapolation • Use of international data • Crop residues field trials guidance • MRL calculator • APEC Import MRL guidance for Pesticides
5. Regulatory Incentives	
6. Joint Reviews/Work Sharing	

Survey of Regulators and GJRs

GRJs are a potential mechanism to enhance registration of minor uses

Advantages:

- Better understanding of other regulators
- Increased collaboration
- Harmonised residue definitions
- Harmonised MRLs

Disadvantages:

- Differences in timeframes
- Different processes and results
- Labour-intensive
- Challenges with finding common GAP

Survey of Regulators and GJRs

- Collaboration can reduce burden on regulators
- Participation dependent on capacity and funding
- Wider participation requires manufacturers to be proactive in seeking GJR partners
- Other regulatory mechanisms can also deliver outcomes for MU
  - Data sharing
  - Extrapolation
  - Crop grouping
  - Regulatory incentives
  - International data
  - Reduced data requirements
  - Reduced fees
  - Bridging to existing uses

Thank you
Maria.trainer@apvma.gov.au

OECD

Improvements to GJRs

- Same formulation and GAP are essential
- Close alignment of assessment procedures and timeframes
- Better coordination and communication
- Improvements in data bridging (e.g., include as many uses as possible in single submission)
- Increase extrapolation possibilities for residues
- Accept broader range of trials from other countries

Conclusion

- OECD Pesticide Programme works to streamline the process of pesticide approval and registration
- Pesticides and pest management practices continue to evolve
  - Opportunities and challenges
- Addressing challenges in a harmonised way creates a level playing field for industry and generates savings for industry and regulatory authorities alike

附件 10-4 International Collaboration for Trade Facilitative Outcomes

International Collaboration for Trade Facilitative Outcomes
Global Minor Use Summit IV (GMUS-4)

Dates: 5-9 February, 2024
Venue: Madrid Spain

Implementation of Regional Guidelines for Registration of Pesticides- the case of East African Community (EAC)

By David Wafula
E-mail: dwafula@eachq.org

Presentation Outline

1. Introduction to EAC
2. Scope and provisions of EAC harmonized guidelines
3. Pilot Testing of the guidelines
4. Lessons learnt, challenges and opportunities
5. Partnerships and complementarity

Introduction to EAC

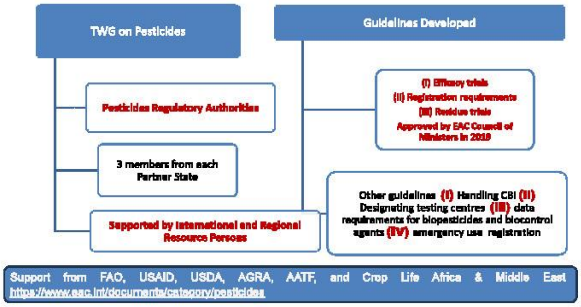
- Regional Economic Community with membership of 8 Partner States
- Total Population – approx 330 million people *(25% of Africa's population)*
- GDP of US$ 320 Billion Dollars
- EAC Pillars of Integration

Kenya, Uganda, Tanzania, Rwanda, Burundi, RSS, DRC and Somalia

EAC Mandate on Agro-Inputs

- Mandate to harmonize is drawn from **Article 108 of EAC Treaty**
- EAC Partner States agreed and prioritized adoption of common mechanism to ensure safety, efficacy and potency of agricultural inputs including chemicals, drugs and vaccines.

EAC Harmonized Guidelines on Pesticides



Support from FAO, USAID, USDA, AGRA, AATF, and Crop Life Africa & Middle East
https://www.eac.int/documents/category/pesticides

Provisions of guidelines on efficacy trials and registration requirements

a) ensure safety and efficacy of pest control products
b) reduced number of testing seasons from 3 to 2
c) facilitate harmonized registration requirements across the EAC region.

- For a product to be registered under EAC harmonized mechanism 2 seasons of trials, in 2 Partner States, 2 different agroecological sites is key requirement
- In cases where a product has been tested and registered in at least 2 EAC Partner States only 1 season of trials in 2 different sites will be required

Piloting of the harmonized guidelines

- EAC convened meetings between Partner States and the Industry to prioritize crop/pest combination for pilot trials (FAW pest control products)
- Products selected using a criteria developed by EAC TWG followed by formal communication from EAC Secretariat to Partner States
- Successful Trials

3 conventional pesticides and 2 biopesticides/biocontrol agents demonstrated efficacy and recommended for registration

a) *Rurubu 70 WDG & Fenofix 82 WDG (Rwanda and URT)*
b) *Mazao Detain (Kenya and Uganda)*
c) *Nomax 150 SC recommended for registration after undergoing confirmatory trials (Kenya and Uganda)*
d) *Aflasafe trials on-going in Uganda and Burundi – groundnuts, maize and sorghum*

Challenges and Lessons Learnt

Capacity, Communication and Awareness Challenges

a) Capacity gaps in conducting trials
   - In some cases no uniformity in the interpretation and application of trial protocols in some cases
   - Further capacity building in the areas of risk assessment and dossier evaluation
   - Capacity and infrastructure for CBI protection needs to be enhanced in some Partner States
   - Low levels of awareness regarding provisions& benefits of EAC guidelines
   - Capacity to conduct **residue trials** – grey area that needs more attention & support

b) Slow pace in the domestication of harmonized guidelines

c) Integration of new Partner States- Republic of South Sudan, Somalia & DRC
   a) *Application of the EAC principles of integration- variable geometry*

Opportunities

a) Regional approach- opportunities for benchmarking &capacity building
   -Regionally coordinated training for trial institutions and personnel involved in trials
b) Enabling environment for increased registration of biopesticides & biocontrol agents
c) Adoption of emergency use guidelines fills an important gap in managing sudden disease & pest outbreaks
d) Piloting of online portal for registration of pesticides (e-submission of dossiers) in Kenya with potential for scale-up to other EAC Partner States
e) EAC has commenced harmonization of guidelines for testing and registration of veterinary pesticides
f) Forging and expansion of partnerships in the area of crop protection- between EAC, technical and financial development partners as well as the industry
g) Inter-RECs collaboration- by adapting the EAC model (SADC guidelines on biopesticides)
h) Forward looking agenda- lessons learnt and experiences gained in conducting pilot efficacy trials to inform transition to Mutual Recognition Mechanism & expand crop/pest combination **(joint assessment $ work sharing)**

Multi-stakeholder consultative forums

RSS team benchmarking visit to PCPB in Kenya

Joint Field Visits and Learning to Trials – August 2023

Untreated plot

Treated plot

Partnerships and Complementarity

FAO FIAT PANIS

USAID | EAST AFRICA
FROM THE AMERICAN PEOPLE

AGRA
Growing Africa's Agriculture

USDA
United States Department of Agriculture
Foreign Agricultural Service

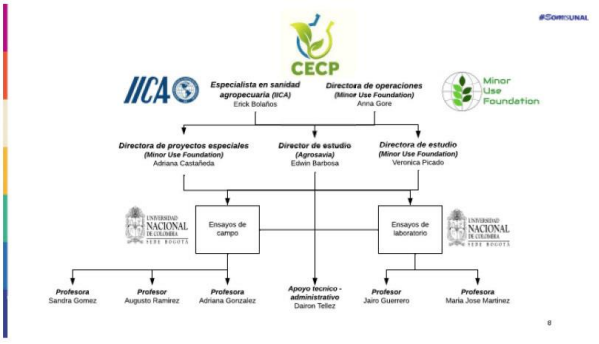
SADC

ICGEB

CropLife
AFRICA MIDDLE EAST

https://www.eac.int/documents/category/pesticides

附件 10-5 Centro de Excelencia Regional para Latinoamérica y el Caribe en Ciencias de Plaguicidas y Bioplaguicidas



Centro de entrenamiento para América Latina y el Caribe en la elaboración de ensayos de campo y de laboratorio para la determinación de Límites Máximos de Residuos (LMR)

- ✔ Capacitación: nacional e internacional
- ✔ Diseño y preparación del curso
- ✔ Primer Curso Internacional: junio de 2023

Primer curso para desarrollo de ensayos de campo y de laboratorio para determinación de LMRs

Fecha: 26 al 30 de junio 2023

Participación de profesionales de Chile, Bolivia, Perú, Ecuador, Colombia, Panamá, Costa Rica, Honduras y República Dominicana

20 asistentes: entidades del gobierno (80%), sector privado y productivo

Tipo de curso: teórico y práctico en campo y en laboratorio

Primer curso de entrenamiento para el desarrollo de ensayos de laboratorio para determinación de LMRs

Primer curso para la realización de ensayos de campo para la determinación de LMRs

Capacitación internacional en ensayos de campo

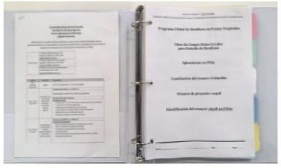
Recinto Universitario de Mayagüez
Universidad de Puerto Rico
Dr. Wilfredo Robles Vazquez
Ing. Luis Almodovar Rodriguez

Capacitación nacional en ensayos de campo

Joe DeFrancesco
Edwin Samir Barbosa
Verónica Picado
Kevin Rice

Planeación y Preparación del Curso Para ensayos de campo

- ✔ Propuesta
- ✔ Revisión de asesores y expertos



Componente teórico

Componente práctico

Balance y Proyección

CECP

- Profesionales capacitados en el montaje de ensayos de campo para determinación de LMRs
- Profesionales capacitados en análisis de laboratorio para determinación de LMRs
- Participación en estudios de magnitud de residuos
- Ingeniero agrónomo: apoyo técnico y administrativo
- Avanzar en una propuesta de sostenibilidad del Centro

Universidad Nacional de Colombia como centro de entrenamiento para América Latina y el Caribe para ensayos de Límite Máximo de Residuos (LRM)

CECP

Gracias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附件 11 Mis/Disinformation about Pesticides

MIS/DISINFORMATION ABOUT PESTICIDES

Dr. Pablo Breuer

DISCLAIMER

The views presented are my own, and do not represent those of my employer.

AGENDA

- Why discuss Mis/Disinformation?
- Define Mis/Disinformation
- Why is agriculture a target?
- Maslow's hierarchy of needs
- Food security and nation-state conflict
- Food residues and regulation
- Occam's Razor

WEF GLOBAL RISK SEVERITY BY STAKEHOLDER

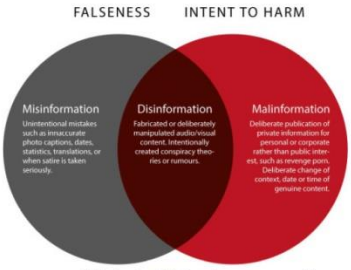
•Disinformation

- *Information that is created, altered, or deliberately manipulated WITH THE INTENT to deceive. The manipulation could be content or CONTEXT.*

•Misinformation

- *Unintentional mistakes of people who have internalized disinformation or misinterpreted real information and propagate it not realizing that what they are propagating is false.*

TYPES OF INFORMATION DISORDER



WHY IS AGRICULTURE A PRIME TARGET FOR MIS/DISINFORMATION?

- Emotional
  - Everyone eats / Everyone is an expert
  - Emotional attachments
  - Cultural and religious beliefs
  - Nationalistic
- Complex
  - Production
  - Logistical chains
  - Proximity to food origin
  - Illegitimate barrier to trade
- Highly Regulated
  - National and International regulation
  - Labeling
  - Environmental issues

Image source: https://hver24.com/a-big-helping-of-how-to-keep-family-dinners-interesting/

BASELINE FOR AGRICULTURE DISCUSSION

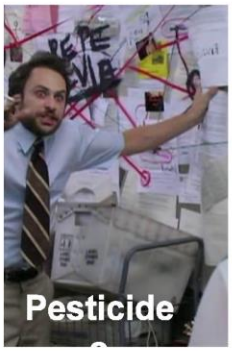
- Agriculture is at the base of Maslow's hierarchy
- Presidentially designated national critical infrastructure
- Food security will be a primary area of international competition/conflict
- Critically reliant on technology

FOOD SECURITY IS GROUND ZERO FOR NATION-STATE CONFLICT

Human needs
- Nothing drives conflict more than unmet human needs (Maslow's hierarchy)
- Food is culturally sensitive and emotionally driven
- Food production and science are complex allowing for easy manipulation of narratives

Research and Development is expensive, lengthy, and highly regulated
- R&D is critical for addressing food security
- R&D data is an easy target for disinformation due to its complex nature
- Transparency requirements make it easy for actors to selectively pick data to change content or context

Challenges to food security
- To address climate change and growing world population, new tools will be required
- Assume disinformation narratives to target new tools



OCCAM'S RAZOR

- All things being equal, the simplest explanation is usually correct
- General populace is more likely to believe a simple and incorrect explanation that fits their bias than a complicated, scientific, and correct explanation

FOOD RESIDUE

National Health Concerns
- Families exposed to negative food residue messaging eat less produce
- Watch lists of food and vegetables increases fear, uncertainty, and doubt and reduces consumption

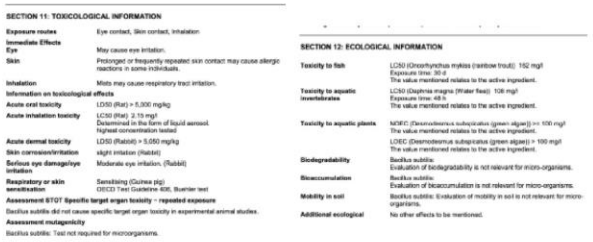
Complexity
- Matrix of chemicals used in agriculture
- Terms like organic are confusing to customers and lead to false beliefs
- Most detected pesticides pose negligible risk and accepted levels are at least 100x less than the level required for adverse effects
- Scary chemical names and no easy method to see testing results

Proximity
- Misunderstanding increased with overseas trade
- Nationally, many are distanced from their food source

PRODUCT PAGE

What's on a product page
- Overview of use
- Resources with usage information
- Material Data Safety Sheet (MSDS)
  - Have you read one? They're TERRIFYING!
  - Easy to pick out language to fit a negative narrative
- Where is the link to the EPA study saying it's safe to use?

MSDS ARE TERRIFYING! PREMARKET APPROVAL REQUIRES PUBLICATION



SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Skin contact, Inhalation
Immediate Effects	
Eye	May cause eye irritation.
Skin	Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
Inhalation	Mists may cause respiratory tract irritation.
Information on toxicological effects	
Acute oral toxicity	LD50 (Rat) > 5,000 mg/kg
Acute inhalation toxicity	LC50 (Rat) 2.15 mg/l Determined in the form of liquid aerosol. highest concentration tested
Acute dermal toxicity	LD50 (Rabbit) > 5,050 mg/kg
Skin corrosion/irritation	slight irritation (Rabbit)
Serious eye damage/eye irritation	Moderate eye irritation. (Rabbit)
Respiratory or skin sensitization	Sensitising (Guinea pig) OECD Test Guideline 406, Buehler test
Assessment STOT Specific target organ toxicity - repeated exposure	
Bacillus subtilis did not cause specific target organ toxicity in experimental animal studies.	
Assessment mutagenicity	
Bacillus subtilis: Test not required for microorganisms.	

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)): 152 mg/l Exposure time: 96 d The value mentioned relates to the active ingredient.
Toxicity to aquatic invertebrates	LC50 (Daphnia magna (Water flea)): 106 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient.
Toxicity to aquatic plants	NOEC (Desmodesmus subspicatus (green algae)): >= 100 mg/l The value mentioned relates to the active ingredient. LOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l The value mentioned relates to the active ingredient.
Biodegradability	Bacillus subtilis: Evaluation of biodegradability is not relevant for micro-organisms.
Bioaccumulation	Bacillus subtilis: Evaluation of bioaccumulation is not relevant for micro-organisms.
Mobility in soil	Bacillus subtilis: Evaluation of mobility in soil is not relevant for micro-organisms.
Additional ecological	No other effects to be mentioned.

FOOD RESIDUE – SNATCHING DEFEAT FROM THE JAWS OF VICTORY

What is a consumer to do?
- One part of the UN (codex alimentarius) says there's a safe limit, the other says it's a carcinogen
- If a vendor or body lists both documents, it's confusing
- If a vendor or body lists only one document, they're "hiding the truth"
- This is where conspiracies and disinformation thrive
- Experts may know why these studies differ, but no one else will. They will only accept the study that matches their pre-existing biases.

QUESTIONS ORGANIZATIONS SHOULD ASK

- How can we better anticipate false narratives and pre-bunk?
- Who in our organization is tasked with monitoring for, evaluating, and responding to disinformation?
- Who is the trusted authoritative source for this type information?
- What narratives are not addressed in our communications plan?
- How do we ensure that populations targeted by disinformation see authoritative sources?

DISARM FRAMEWORK

THANK YOU

Pablo Breuer, Ph.D.
Pablo.Breuer@disarm.foundation
www.disarm.foundation

附件 12 Effects of Spinetoram on Rionegro (Antioquia, Colombia) avocado production

Effects of Spinetoram on Rionegro (Antioquia, Colombia) avocado production

Mario Velasquez
Industrial Engineer
Posgraduate Project social assessment
MSc Applied Economics
m.velasquez.Zabaleta@gmail.com

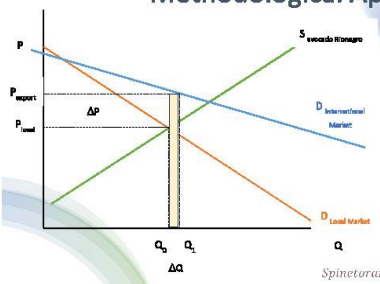
Economic Study Objectives

"Economic losses to pests may be from reduced yields or degradation of product quality…" The Economic Impact of the IR-4 Project and Programs

To determine the effect of the use of spinetoram on avocado primary production in Rionegro (Antioquia-Colombia) by measuring changes in profitability in local production.

Study Steps

Methodological Approach

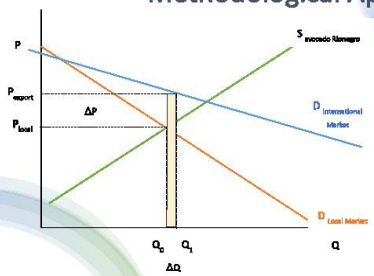


$$\Delta_P = (P_{export} - P_{local})$$

$$\Delta_Q = (Q_1 - Q_0)$$

$$Spinetoram\ Effect = \Delta P \times \Delta Q(\Delta\%Mitigacion)$$

Methodological Approach



$$\Delta_P = (P_{export} - P_{local})$$

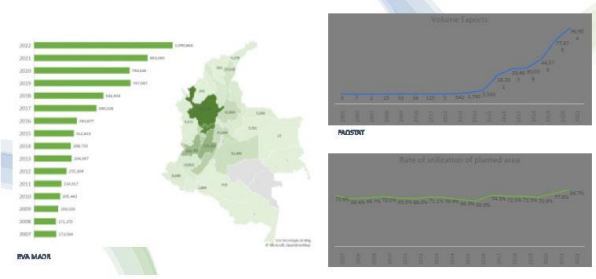
$$\Delta_Q = (Q_1 - Q_0)$$

1. Avocados with required conditions are sold in international markets.
2. ΔP additional pesos received per kilogram of avocado with respect to local price.
3. ΔQ additional amount of avocado that can be traded on the international market due to mitigation of the effects of thrips.

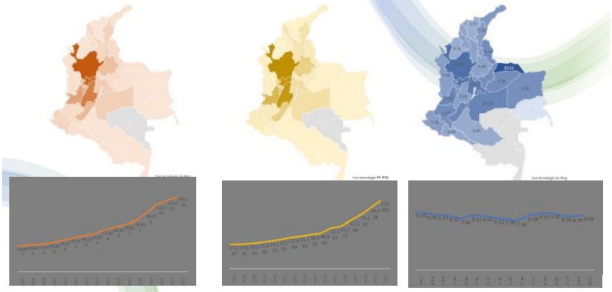
Methodological Approach

Data Analysis

Behavior of the primary production of avocado in Colombia



Behavior of the primary production of avocado in Colombia



Behavior of the primary production of avocado in Rionegro

Behavior of the primary production of avocado in Rionegro

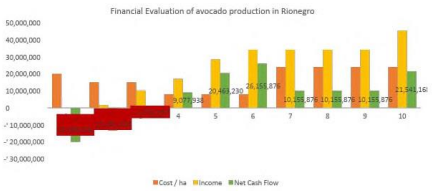
Behavior of the primary production of avocado in Rionegro

Year	Cost / ha	Kg Avocado / Tree	Kg / ha	Ton / Ha
1	20,000,000	0	-	0
2	15,000,000	3	600	0.6
3	15,000,000	18	3,600	3.6
4	8,000,000	30	6,000	6
5	8,000,000	50	10,000	10
6	8,000,000	60	12,000	12
7	24,000,000	60	12,000	12
8	24,000,000	60	12,000	12
9	24,000,000	60	12,000	12
10	24,000,000	80	16,000	16

Planting density	200
Kilos / Ton	1000
Oportunity	
Interest Rate	11%

Calculations

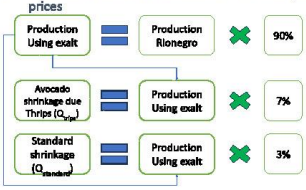
1. Financial assessment for 1 hectare



NPV	$20,681,268.48
IRr	23%
PV Costs	-$85,263,470.12
EAC	-$16,175,873.18

Calculations

2. Estimated volume of additional marketed production at export prices



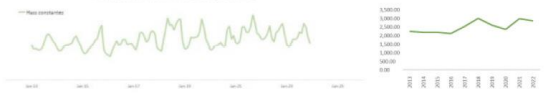
Calculations

3. Estimate price differential

a) Local prices deflated with the DANE consumer price index

b) Average annual price calculation

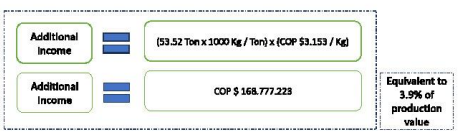
c) Price of export markets corresponds to information provided by the interviewee.



Calculations

4. Additional income received

Production (Ton)	(90%) Production using Exalt (Ton)	(7%) Avocado shrinkage due Thrips (Ton)	(3%) Standar shrinkage (Ton)	Gradient (Thrips Shrinkage - Estándar Shrinkage) (Ton)	Average annual price in wholesale markets (COP $ / Kg)	Avocado Exportation price / Kg (COP $)	Gradient Price (Export Price - Local Price) (COP $)	Additional income received (COP $)
1,487	1,337.94	93.66	40.14	53.52	2,846.32	6,000	3,153.68	$ 168,777,223



Findings

Growers interested in exporting use exalt for effective control of thrips. According to interviewee, 90% of the production is covered by Exalt.

Primary production of avocado in Rionegro receives additional COP $168 MM for controlling thrips and marketing that volume in the export market

This value per hectare is equivalent to COP $1.2 M per year. Almost a minimum monthly wage. The additional volume marketed at export prices generates the equivalent of one monthly salary.

Primary avocado production in Rionegro generates about 110 direct jobs.

附件 13 MUF Prioritization & Project Selection

MUF Prioritization & Project Selection

Global Minor Use Summit IV
5-9 February 2024 / Madrid, Spain

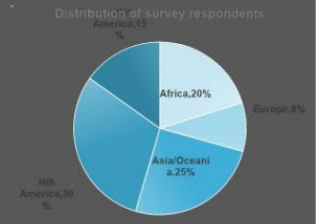
ALAN NORDEN
MINOR USE FOUNDATION

Presentation outline

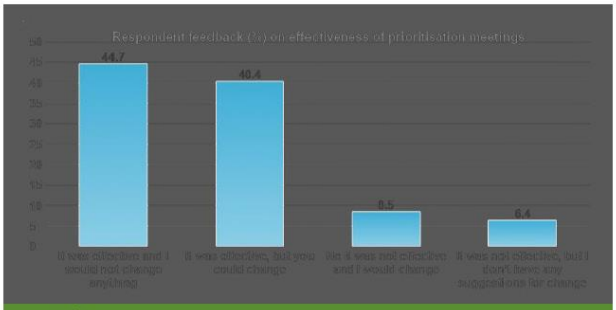
1. Recent survey & feedback
2. High level analysis of previous priorities
3. General thoughts / questions
4. Break out group guidance

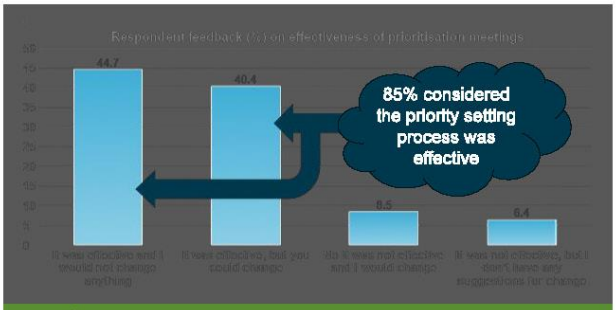
Part 1: Recent Survey & Feedback

- Survey conducted in November-December 2023
- Primary purpose - seek feedback on priority setting
- 79 respondents
- 53% had participated in previous priority setting meetings

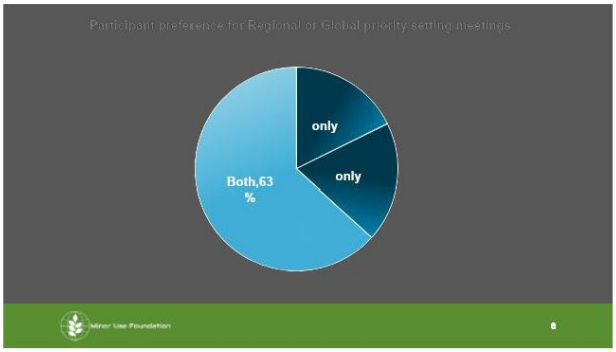


Do participants consider previous priority setting processes were effective?

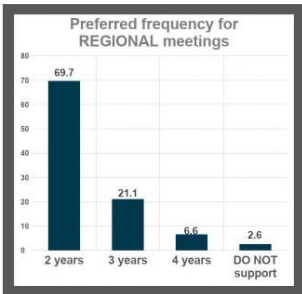


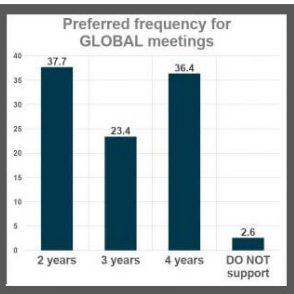


Do respondents have a preference for Regional or Global Meetings or Both?

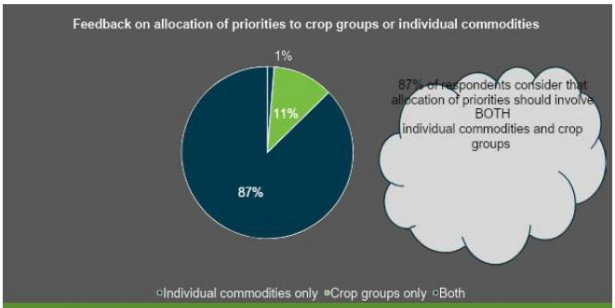


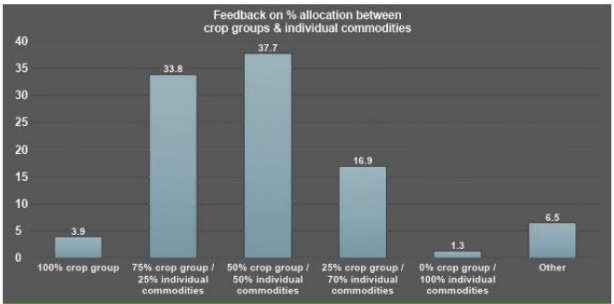
What did respondents suggest about the frequency of priority setting meetings?



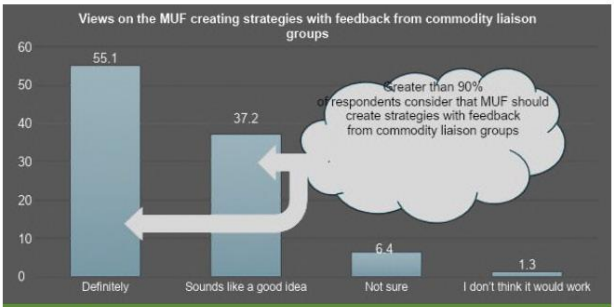


What did respondents suggest in terms of pursuing priorities in individual commodities or crop groups?

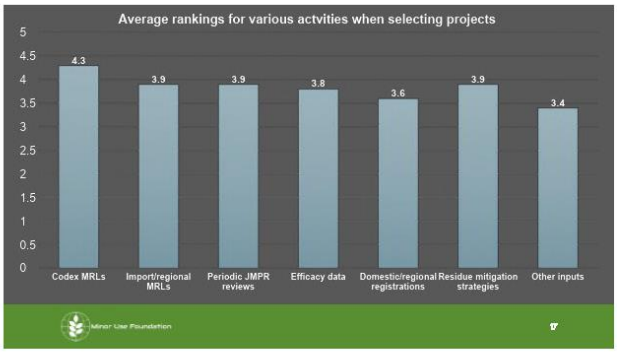


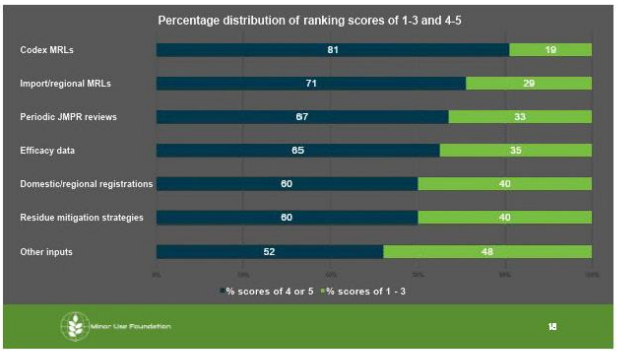


What did respondents suggest in terms of creating strategies with feedback from commodity liaison groups?



Respondent views on ranking priorities based on purpose


Average rankings for various actvities when selecting projects
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
4.3
3.9
3.9
3.8
3.6
3.9
3.4
Codex MRLs
Import/regional MRLs
Periodic JMPR reviews
Efficacy data
Domestic/regional registrations
Residue mitigation strategies
Other inputs
Minor Use Foundation
17


Percentage distribution of ranking scores of 1-3 and 4-5
Codex MRLs
81
19
Import/regional MRLs
71
29
Periodic JMPR reviews
67
33
Efficacy data
65
35
Domestic/regional registrations
60
40
Residue mitigation strategies
60
40
Other inputs
52
48
% scores of 4 or 5
% scores of 1 - 3
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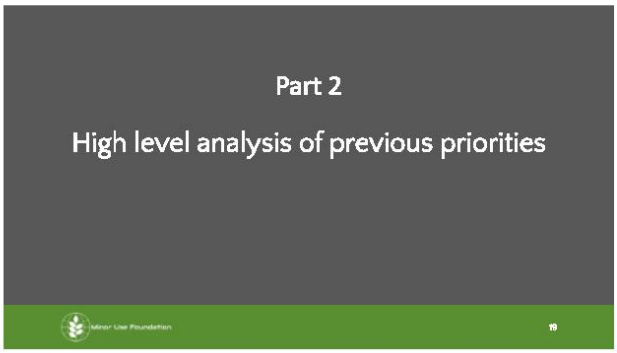
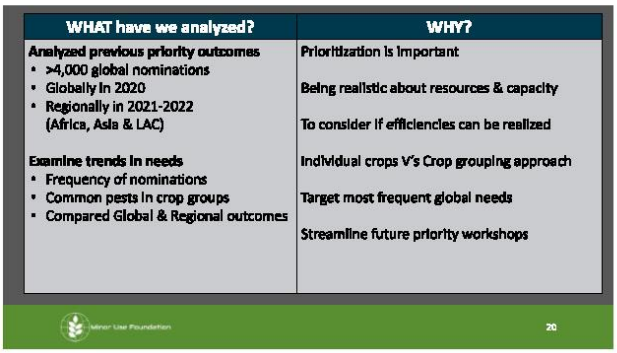
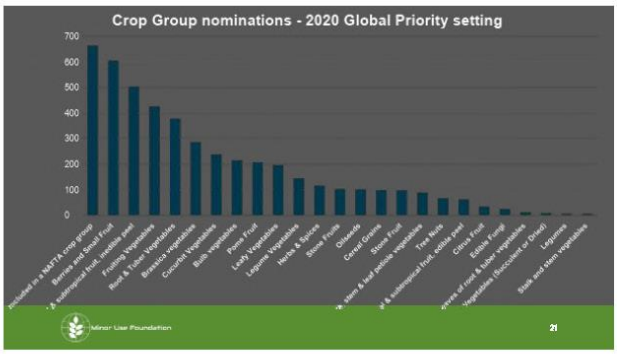
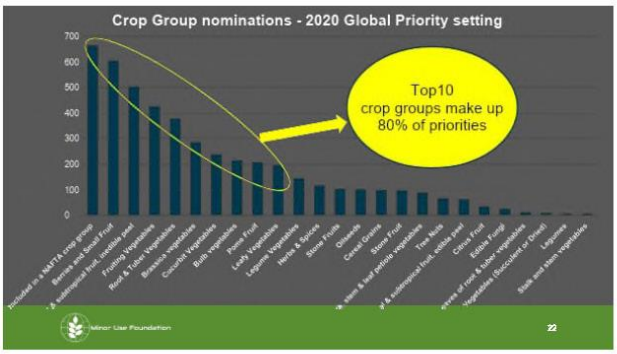
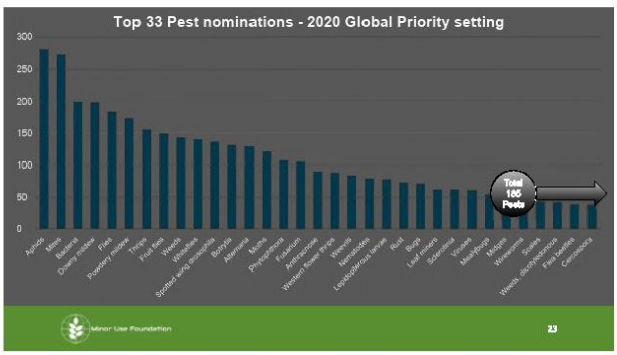
18

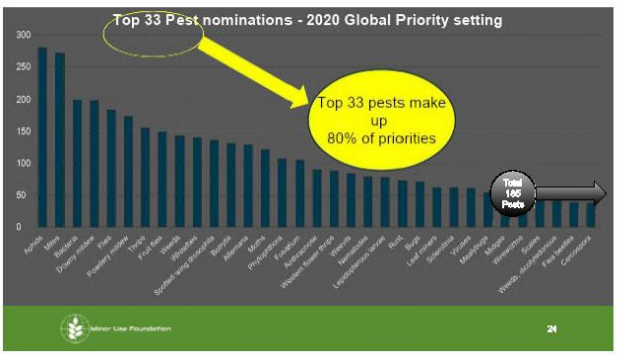

Part 2
High level analysis of previous priorities
Minor Use Foundation
19

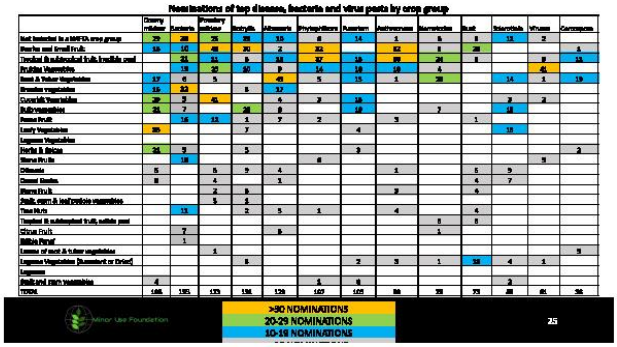

WHAT have we analyzed?
WHY?
Analyzed previous priority outcomes
• >4,000 global nominations
• Globally in 2020
• Regionally in 2021-2022 (Africa, Asia & LAC)
Examine trends in needs
• Frequency of nominations
• Common pests in crop groups
• Compared Global & Regional outcomes
Prioritization is important
Being realistic about resources & capacity
To consider if efficiencies can be realized
Individual crops V's Crop grouping approach
Target most frequent global needs
Streamline future priority workshops
Minor Use Foundation
20

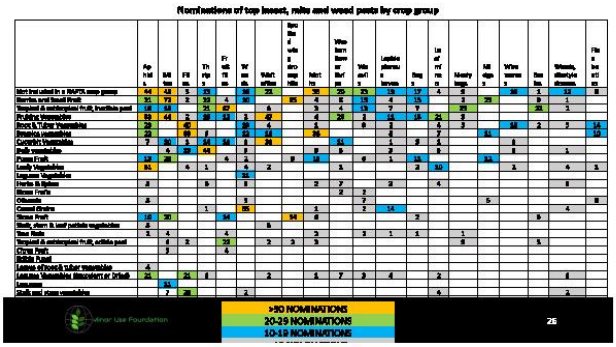

Crop Group nominations - 2020 Global Priority setting
700
600
500
400
300
200
100
0
Minor Use Foundation
21


Crop Group nominations - 2020 Global Priority setting
Top10
crop groups make up
80% of priorities
Minor Use Foundation
22


Top 33 Pest nominations - 2020 Global Priority setting
300
250
200
150
100
50
0
Total 165 Pests
Minor Use Foundation
23


Top 33 Pest nominations - 2020 Global Priority setting
Top 33 pests make up
80% of priorities
Total 165 Pests
Minor Use Foundation
24





Summary of previous two tables Nomination count Top33 Pests by Crop Groups

Number of nominations per crop group	Total nominations	% ALL Nominations (n=4679)	Number pest/crop group combinations
>30	1255	27%	29
20-29	690	15%	30
10-19	969	21%	67
<10	788	17%	197
TOTAL	3702	80%	323

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Comparison with more recent regional priority outcomes

55 Regional priorities established in Africa, Asia, LAC

46 priorities (84%) were for a listed Top33 Pest

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Part 3

General thoughts & discussion

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Priority Pests in Priority Crop Groups

Its just not feasible to do everything

Number of nominations per crop group	Total nominations	% ALL Nominations (n=4679)	Number pest/crop group combinations
>30	1255	27%	29
20-29	690	15%	30
10-19	969	21%	67
<10	788	17%	197
TOTAL	3702	80%	323

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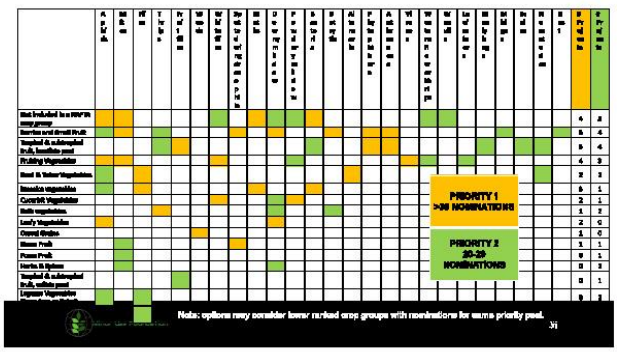

Possible approaches

- For agreed priority pests in priority crop groups conduct an analysis of existing registered solutions globally and with stakeholders identify gaps and priority areas of activity:
  - needs without any existing solutions (ie. no registrations globally)
  - existing solutions seeking domestic approval (ie. registered elsewhere globally)
  - needs seeking new solutions (ie. product rotation for managing resistance and accessing trade enabling products)
  - existing solutions seeking trade enabling outcomes (ie. Codex MRLs, biopesticides, residue mitigation strategies etc.)
  - solutions to maintain or replace existing products (ie. risk and loss of products following regulatory / periodic reviews).

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Other considerations

- Not all pests are the same – some are best described as 'classes'
- A crop group or key pest approach may only be a subset of projects MUF pursues while still conducting individual commodity projects
- May still require mechanisms to identify niche and/or regional priorities
- Take a similar but different approach – seek input from commodity liaison groups?.

Part 4

Breakout group guidance

Breakout group questions

Series of questions in 2 themes:

Themes	Focus areas
Scope of Priority Setting meetings – Regional and/or Global	Frequency of Regional & Global priority setting meetings
	Relationship of Regional & Global meetings & results
Project/Priority selection	Crop Groups & Individual commodities
	Commodity Liaison Groups
	Ranking priorities based on activity/purpose

Breakout group questions

Theme 1: Scope of Priority Setting meetings – Regional and/or Global	
Frequency of Regional & Global priority setting meetings	• What should the frequency of those meetings be?.
Relationship of Regional & Global meetings & results	• What is the relationship of Regional to Global priorities? • Should results of the two meetings interface or build on one another? • Should they be conducted using the same or different methodology?

Breakout group guidance

Theme 2: Project/Priority selection	
Crop Groups & Individual commodities	• Should priorities be established for both individual commodities and crop groups, YES or NO? If YES then: • should the MUF establish an approximate percentage (%) allocation to each or leave this as flexible based upon needs as they are identified? • what methodology should be used to identify a select number of crop group priorities and what number should that be? • Does the breakout group have any other thoughts they propose should be considered?

Breakout group guidance

Theme 2: Project/Priority selection	
Commodity Liaison Groups	• Is there support for the establishment of commodity liaison groups?, YES or NO? If YES then what is the recommended • scope and number of these groups (ie. pest or commodity based), • how could they best be formed and suggested membership, and • how often should they meet and do they have a role in regional or global priority setting meetings?

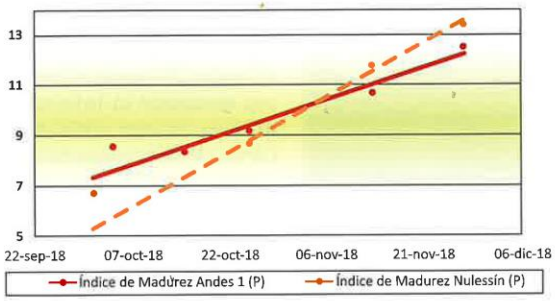
Breakout group guidance

Theme 2: Project/Priority selection	
Ranking priorities based on activity/purpose	• Should activities attached to nominated priorities be assigned different weighting when it comes to ranking priorities (ie. Codex MRL, domestic registration, efficacy data etc.)? If YES, then what weighting should be applied and how? (appreciating a nominated priority may have multiple possible activities/purposes) • Are there any activities/purposes in the survey that should be EXCLUDED from consideration (or others that need to be considered)?. • Does the breakout group have any other thoughts they propose should be considered?

Breakout groups are to briefly document discussions and suggested approaches and present those to all attendees

Variedades protegidas AVASA

ANDES 1 (P) (CLEMENLUZ)



La variedad Andes 1 (Clemenluz®) es un clementino obtenido por mutación espontánea de un árbol de Clemenules en una plantación de Chile. Ha sido solicitada la protección ante la Oficina Comunitaria de Variedades Vegetales (OCVV) bajo el número de solicitud Nº 20150538. La propagación, producción, venta, oferta o exposición a la venta, comercialización o exportación de material genético sin la autorización de AVASA, está prohibida y penada por ley.

CARACTERÍSTICAS DEL FRUTO	
Recolección	**2 o 3 semanas antes que Clemenules**
Color	Naranja intenso
Diámetro	**62 - 67 mm**
Diámetro / altura	1,3
Peso	105 - 115 g
Espesor corteza	2 mm
Observaciones agronómicas	El fruto es más achatado que Clemenules y sin semillas en ausencia de polinización cruzada. Es de fácil pelado y tiene un excelente sabor, con contenido en sólidos solubles equivalentes a Clemenules. Su acidez es ligeramente inferior y responde muy bien al desverdizado, adquiriendo una coloración naranja intenso.

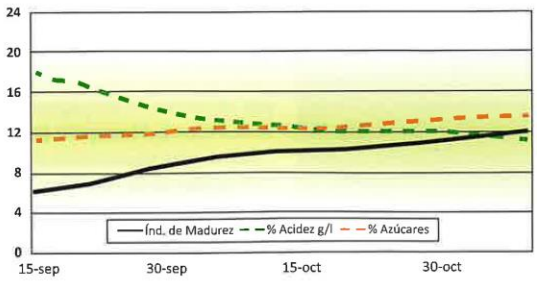
Fuente: Datos obtenidos en condiciones AVASA

Variedades Exclusivas Protegidas (P)

AVASA
AGRUPACIÓN DE VIVERISTAS DE AGRIOS, S.A.

AGRUPACIÓN DE VIVERISTAS DE AGRIOS, S.A.
Partida Torrasa, Camino Estopet, s/n
Ap. Correos 20-12.570 Alcalá de Xivert (Castellón)
Tel.: (+34) 964 761 168
email: info@viverosavasa.com

OROGRÓS (P)

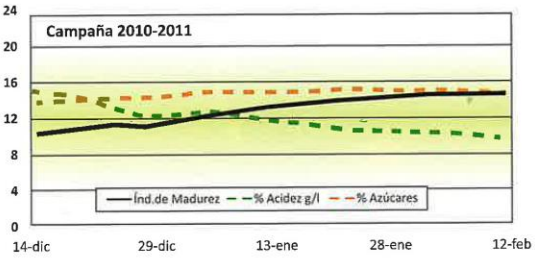


Es una mutación espontánea de la variedad Oronules originada en Vall d'Uixó (Castellón) y descubierta por D. Vicente Arnau. El 21 de octubre de 2013, la O.C.V.V. otorgó la Protección Comunitaria de Obtención Vegetal en la Unión Europea mediante su decisión Nº EU 36431 en favor de AVASA, licenciatario exclusivo para su propagación.

CARACTERÍSTICAS DEL FRUTO	
Recolección	**20 de septiembre - 31 de octubre**
Color	Naranja/rojizo intenso (I.C.=24)
Diámetro	**55 - 60 mm**
Diámetro / altura	1,1 Esférica, ligeramente achatada
Peso	80 - 100 g
Espesor corteza	2 mm
Porcentaje zumo	**52-58**
Azúcares %	10-13
Acidez %	1,35 - 0,95
Índice de madurez	8,2 -12,2
Observaciones agronómicas	**Muy precoz y productiva.** Rápida entrada en producción. Más vigorosa y menor tendencia a multiyemas que otras variedades similares, aunque también se recomienda la protección del tronco. Mayor tamaño fruta.

Fuente: IVIA - AVASA

MANDANOVA SL (P)



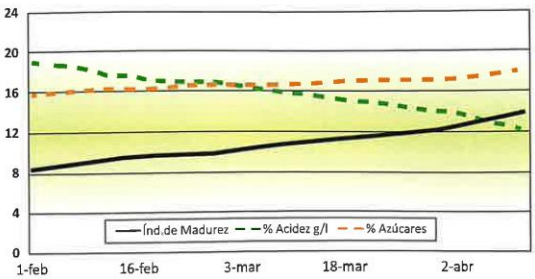
Mutación de mandarino Nova obtenida mediante irradiación de yemas en Sudáfrica por el ARC-ITSC, quien cedió a AVASA la exclusiva en España. El 18 de enero de 1999, AVASA solicitó su protección con el nº 19990031, siendo el 9 de febrero de 2015 cuando la O.E.V.V. le concede la Protección Comunitaria de Obtención Vegetal mediante su decisión Nº EU 39502.

CARACTERÍSTICAS DEL FRUTO	
Recolección	**1 Diciembre – 5 Febrero según zonas**
Color	**Naranja Intenso (I.C. = 19)**
Diámetro	55-65 mm.
Diámetro/Altura	1,18
Peso	90-120 g
Espesor corteza	2,3-2,8 mm
Porcentaje zumo	50-55
Azúcares %	14-15
Acidez %	1,5-1,0
Índice de madurez	11-14
Observaciones agronómicas	**Muy productiva, sin semillas y comercialmente tampoco las introduce en otras variedades.** Rápida entrada en producción. Ligera sensibilidad a Alternaria como Nova.

Fuente: IVIA - AVASA

Variedades Exclusivas Protegidas (P)

MURINA (P)



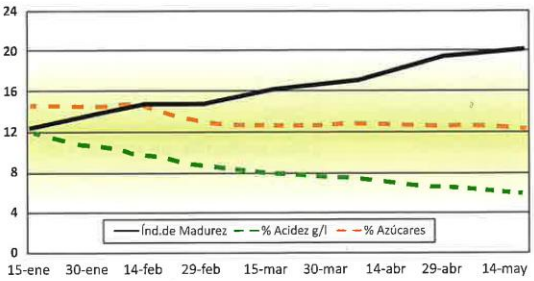
Mutación de Murcott obtenida en el IVIA a partir de la irradiación de yemas de Murcott LS(Avasa Pri-1) introducidas en España por AVASA. Maduración tardía, con frutos atractivos y de excelente calidad. Espesor de la piel muy fina. Su sensibilidad a Alternaria es similar a la del mandarino Nova. Se recomiendan patrones vigorosos que favorezcan mayor espesor de piel.

CARACTERÍSTICAS DEL FRUTO	
Recolección	**Febrero/Abril**
Color	Naranja (I.C. = 12)
Diámetro	57-62 mm.
Diámetro/Altura	1,30
Peso	90-100 g
Espesor corteza	1,3-1,5 mm
Porcentaje zumo	**54-58**
Fructificación	**Muy alta, no precisa tratamiento para el cuajado.**

Fuente: IVIA - AVASA

Variedades protegidas AVASA

CHISLETT SUMMER NAVEL (P)



Se originó por una mutación espontánea de la variedad Washington Lavel, descubierta en Australia por Greg Chislett en 1986. El 8 de octubre de 2007 la O.C.V.V. otorga la Protección Comunitaria de Obtención Vegetal en la Unión Europea mediante su decisión Nº 20976, siendo AVASA el licenciatario exclusivo para la Unión Europea y otros países.

CARACTERÍSTICAS DEL FRUTO	
Recolección	**Febrero/Mayo,** muy tardía
Color	Naranja (I.C. = 12)
Diámetro	78-83 mm.
Diámetro/Altura	1,05
Peso	240-260 g
Espesor corteza	3,5-4,5 mm
Porcentaje zumo	55-58
Azúcares %	10-13
Acidez %	1,2-0,7
Índice de madurez	9-20
Observaciones del fruto	Buena adherencia al pedúnculo. Piel fina, **fruto muy atractivo.** Menor acidez que otras tardías.

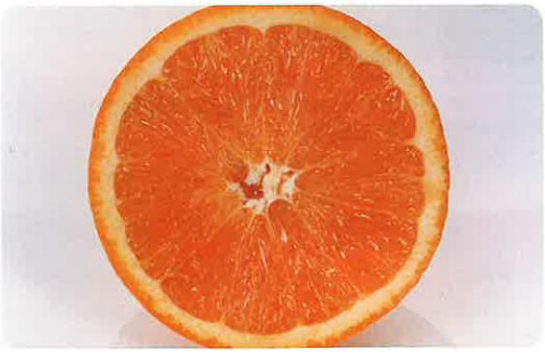
Fuente: IVIA - AVASA

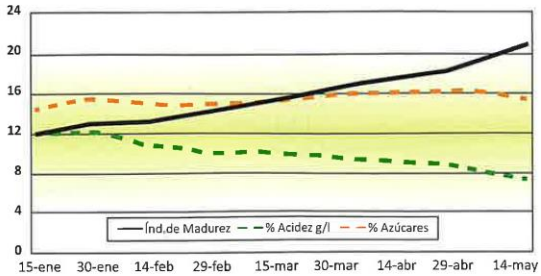
Variedades Exclusivas Protegidas (P)

AVASA
AGRUPACIÓN DE VIVERISTAS DE AGRIOS, S.A.

AGRUPACIÓN DE VIVERISTAS DE AGRIOS, S.A.
Partida Torrasa, Camino Estopet, s/n
Ap. Correos 20-12.570 Alcalá de Xivert (Castellón)
Tel.: (+34) 964 761 168
email: info@viverosavasa.com

POWEL SUMMER NAVEL (P)





Mutación espontánea de Washington Navel, descubierta por Neil y Joyce en Australia en 1982. El 17 de diciembre de 2007 AVASA obtiene la Protección Comunitaria de Obtención Vegetal en la Unión Europea mediante su decisión Nº 20998, por lo que tiene su exclusividad en Europa y otros países.

CARACTERÍSTICAS DEL FRUTO	
Recolección	**Marzo/Mayo,** según zonas
Color	Naranja (I.C. = 12)
Diámetro	78-83 mm.
Diámetro/Altura	1,02
Peso	240-260 g
Espesor corteza	3,5-4 mm
Porcentaje zumo	55-58
Azúcares %	11-14
Acidez %	1,1-0,8
Índice de madurez	10-18
Observaciones del fruto	Gran adherencia al pedúnculo y **consistencia muy firme** al final de la campaña.

Fuente: IVIA - AVASA

附件 15 PreHLB 計畫暨番櫻桃木蝨危害宣導圖卡

PreHLB

Prevención del HLB para garantizar la supervivencia de los cítricos en Europa



La enfermedad Huanglongbing (HLB), también conocida como Greening o dragón amarillo, es considerada la más devastadora de la citricultura mundial debido a su rápida dispersión y virulencia, las enormes pérdidas que genera en la producción y calidad de la fruta, la falta de variedades resistentes y tratamientos económicamente viables para los árboles infectados y la ausencia de mecanismos de control duraderos.

Esta enfermedad amenaza más que nunca a la citricultura europea porque el vector transmisor *Trioza erytreae* se ha detectado en las Azores y las Islas Canarias y, desde 2014, también se ha encontrado en Galicia y Portugal. En caso de que se propagara a los cítricos del Algarve y Huelva, pondría en peligro la viabilidad del sector español y europeo.

En este contexto, socios de Europa, América y Asia han puesto en marcha PRE-HLB, un proyecto financiado por el Programa Horizon2020 de la Comisión Europea que tiene por objeto desarrollar e implementar un plan de contingencia para proteger el sector de los cítricos en la Unión Europea de dicha enfermedad y crear conjuntamente nuevas soluciones para manejar la enfermedad a través de un enfoque multidisciplinario.

Entidades asociadas al proyecto:

A través de este tríptico del PRE-HLB se pretende facilitar a los agricultores información para detectar en sus explotaciones tanto al vector transmisor *Trioza erytreae* como síntomas de la enfermedad en hojas y frutos. Una rápida identificación a pie de campo permitiría agilizar las labores de prevención y control de la enfermedad. Puedes encontrar los detalles para identificar esta enfermedad en el reverso.

Este proyecto ha recibido financiación del programa de investigación e innovación Horizonte 2020 de la Unión Europea en virtud del acuerdo de subvención Nº 817526

Trioza erytreae

Insecto vector transmisor de la bacteria causante del HLB

Síntomas de infección de T. erytreae en los brotes


Los adultos son alados de un color marrón, la característica más distintiva de T. erytreae es el ángulo de unos 35º que forman con la superficie cuando se posan en una hoja para alimentarse.

Síntomas de infección de T. erytreae en las hojas

Las hembras adultas depositan huevos naranjas en los brotes tiernos, donde pocos días después de la aparición de las ninfas, se forman agallas en la parte inferior de la hoja. La alimentación de las ninfas promueve la formación de agallas que parecen globos en el haz de la hoja, y huecos cóncavos en el envés, donde se encuentra la ninfa hasta que completa su desarrollo. En el envés de la hoja se aprecian los cuerpos de las ninfas rodeadas por filamentos céreos blancos, cuya cantidad aumenta durante su desarrollo. Sobre la cera puede desarrollarse negrilla u otros hongos. Después de que emerjan los adultos, la agalla permanece vacía en el lado inferior de la hoja.

Los adultos tienen un tamaño de entre 2 y 4 mm de longitud, son de color verde claro cuando nacen pero con el tiempo se van oscureciendo hasta obtener una coloración marrón oscuro. Tienen las alas alargadas y transparentes donde, a medida que el adulto va madurando, se manifiesta una venación marrón. Los machos son más pequeños que las hembras, distinguiéndose de ellas por la forma del final del abdomen: en la hembra es puntiaguda y en el macho es redondeada.

Cuando hay una fuerte infestación de T. erytreae, las agallas producen una distorsión y un enrollamiento de las hojas, algunas veces acompañado de clorosis. Las hojas de cítricos permanecen en el árbol después de infestaciones masivas por T. erytreae.