



Agriculture Division of DowDuPont™

Strategy for International Development of Crop Protection Products

- Navigating the MRL Maze

CLA RISE Spring Conference 2018

Trading Up: How Crop Protection Influences Agricultural Exports

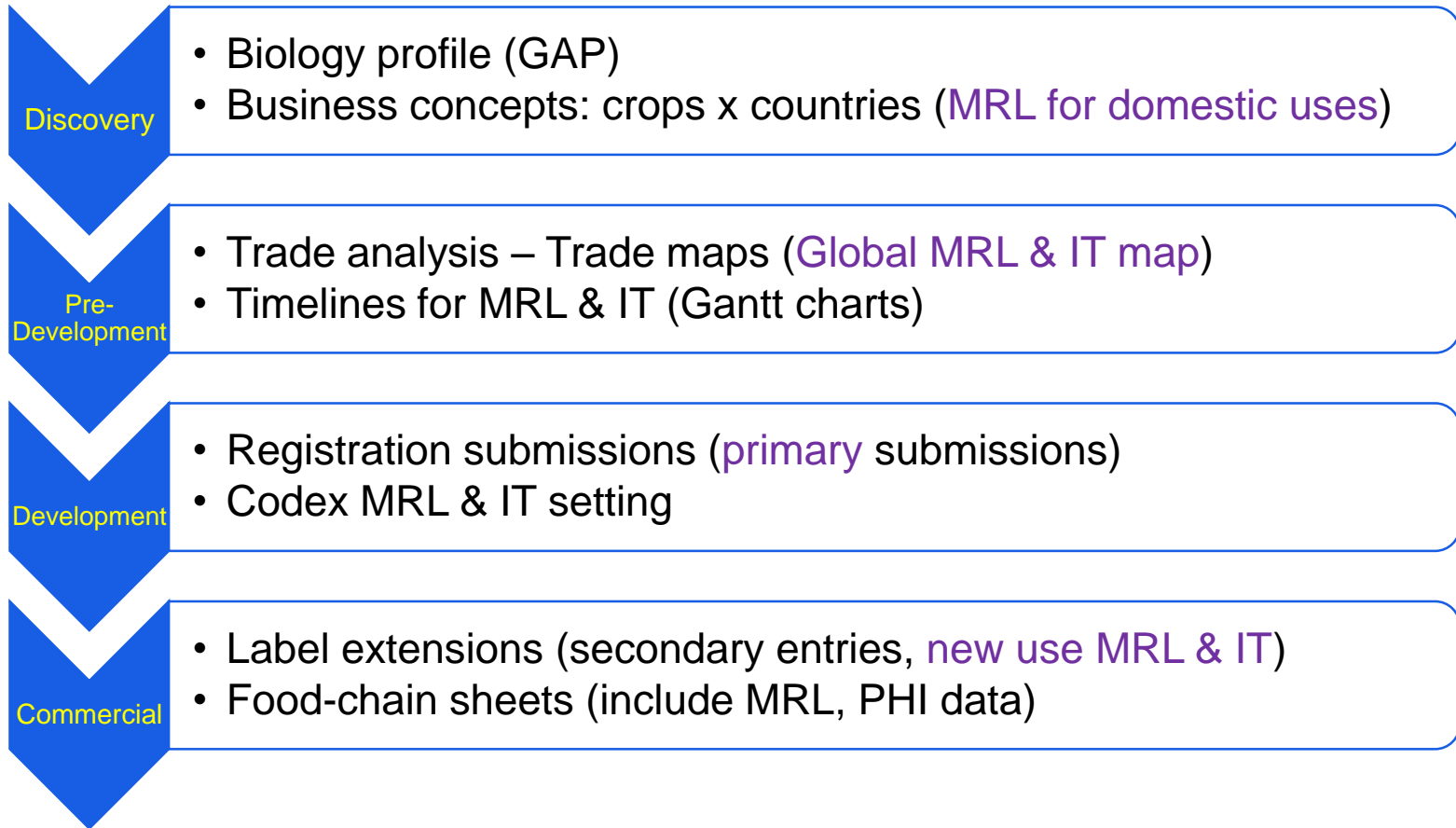
Carmen Tiu, April 26, 2018

Presentation Outline

1. MRL & IT Strategy during Product Development
2. Trade considerations
3. Global MRL & IT Map
4. Navigate the MRL Maze post-registration

MRL & Import Tolerance Strategy

During Product Development



2. Trade Considerations

UN- COMTRADE, confirmed by business units, and food-chain
<https://comtrade.un.org/>

Typically averages of last 5 years trade (by volume, and value)

Top 10 countries, or summing-up to 95% of the trade

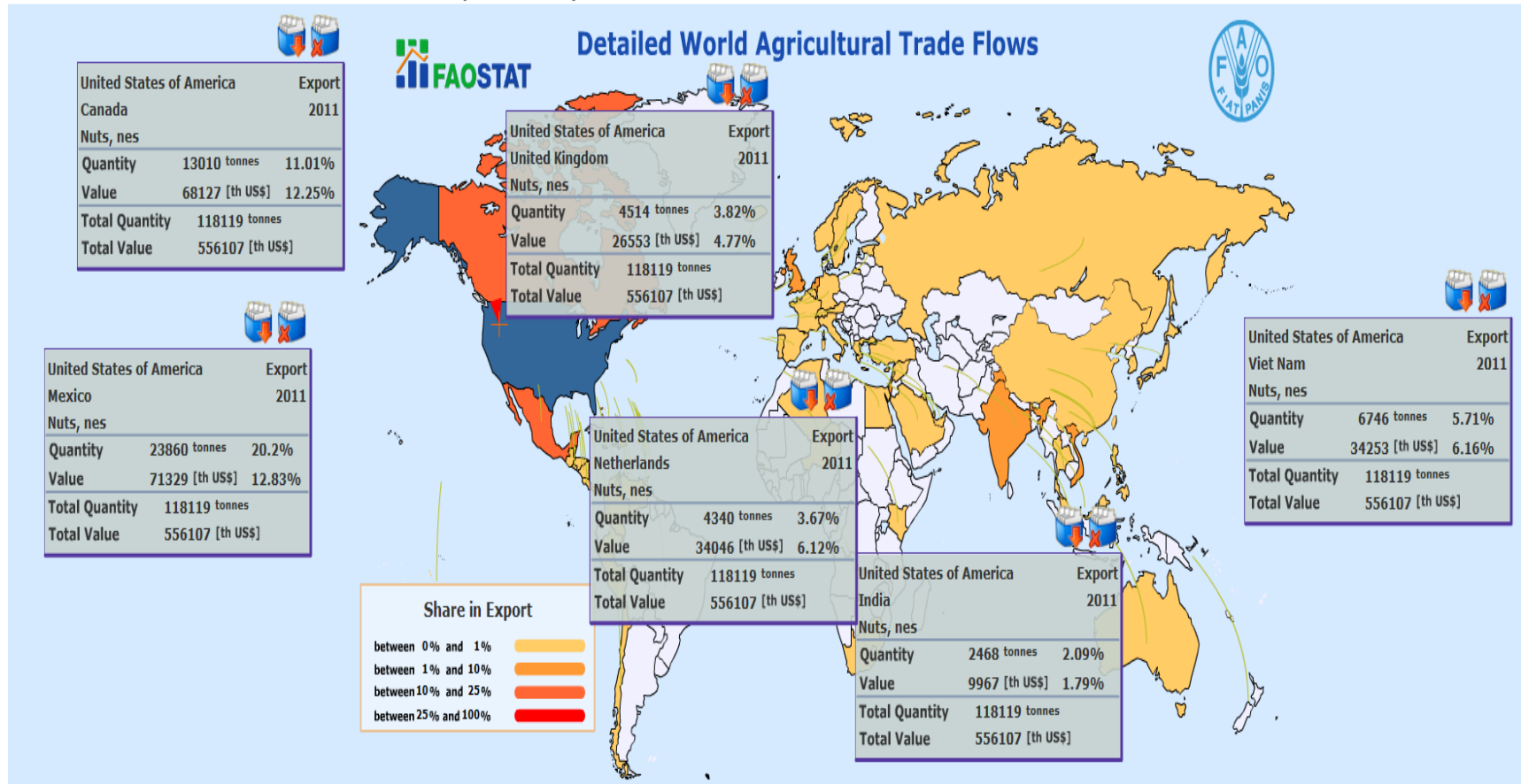
Will trigger planning resources for Import Tolerances

Prioritization is often needed to accommodate the approved budget



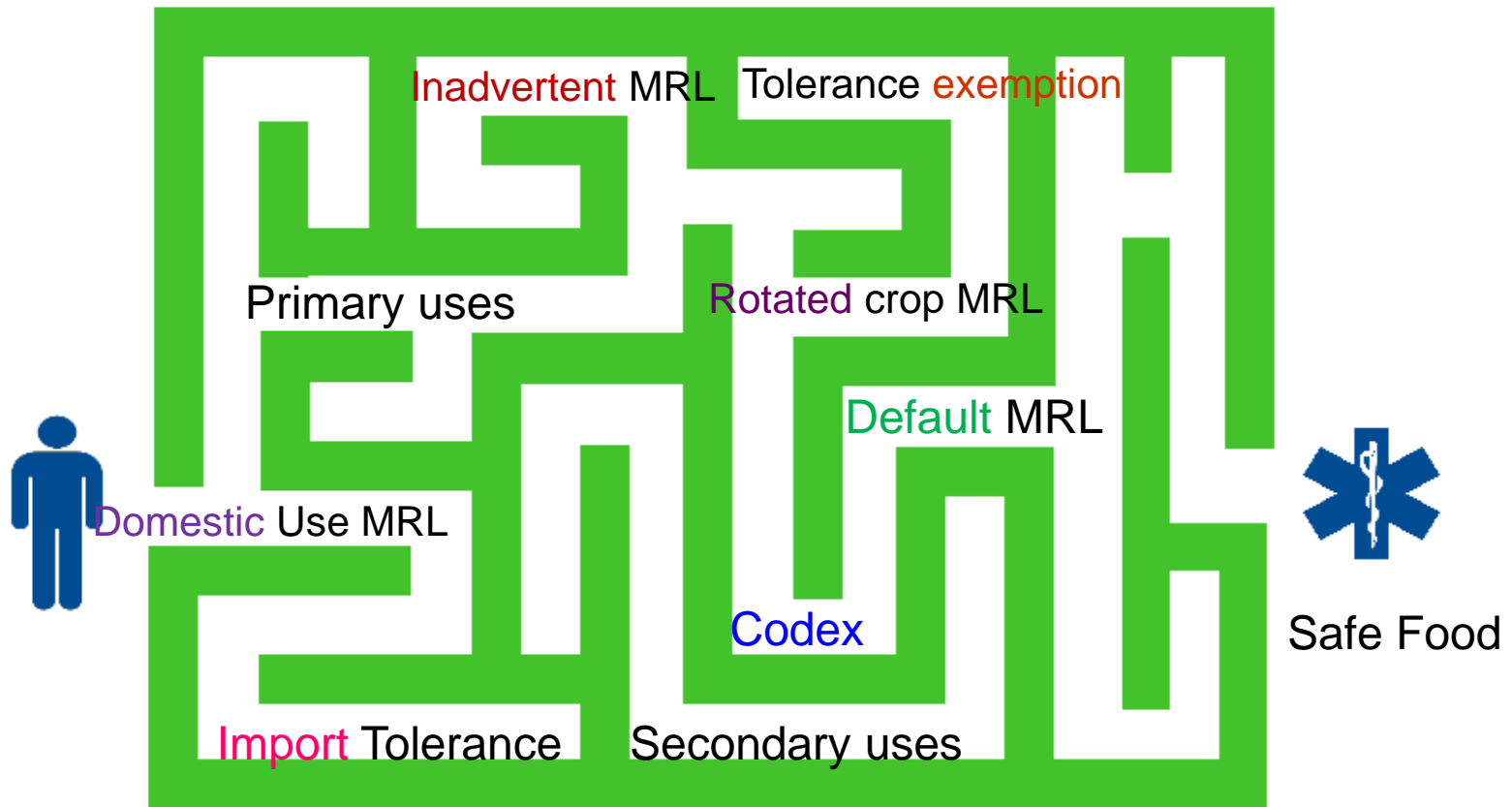
3. Global MRL & IT Maps

US Trade of Nuts (2011)



4. Navigate the MRL Maze

Post-launching: new uses MRL & IT, inadvertent MRL, default-MRL, etc.



Compliance with Multiple MRL Standards

Residue Decline Curves used for registration

Need confirmation from growers, as per their crop use practices

EXAMPLE:

COFFEE BEANS MAY BE TRADED AS

- GREEN BEANS (WITH SKIN/SHELL ON)
- GREEN BEANS (NO SKIN)
- ROASTED BEANS/ GROUND COFFEE (AS CONSUMED)
- INSTANT COFFEE

ONE SET OF DATA, MAY PROMPT VERY DIFFERENT MRL STANDARDS

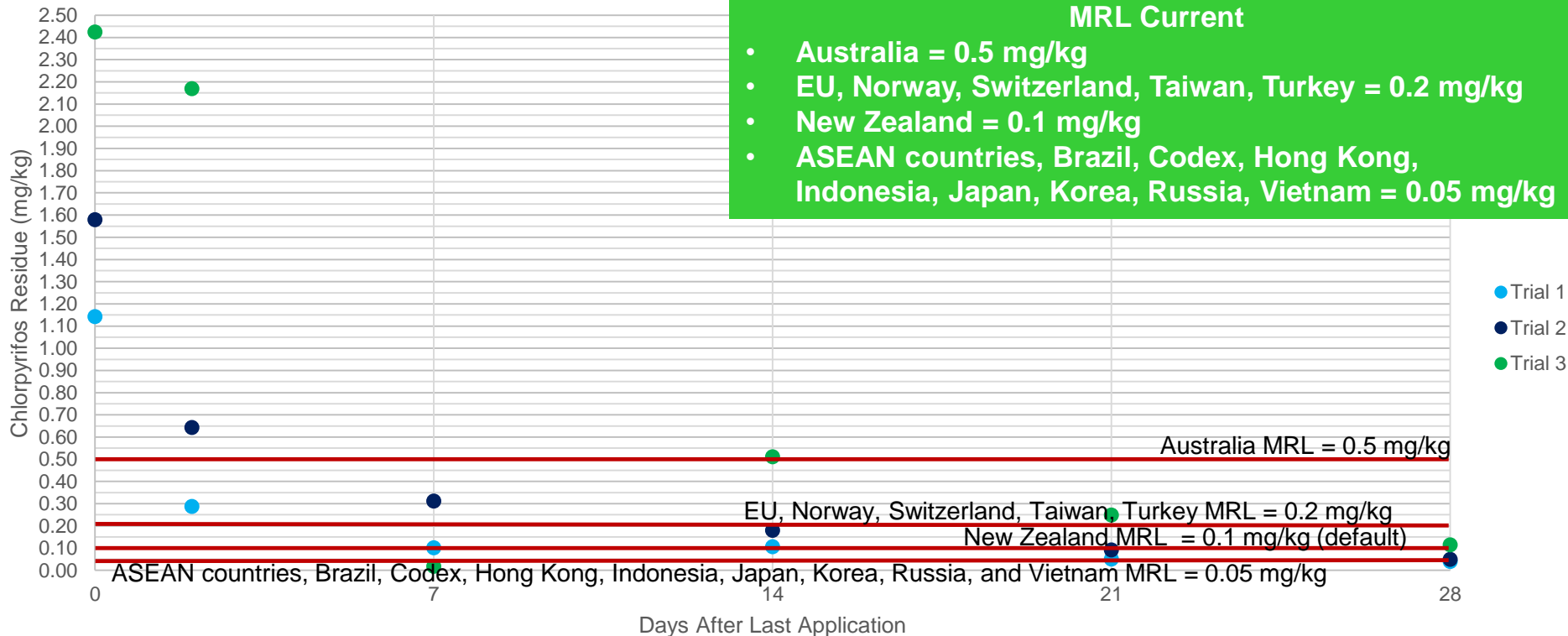
- TO BE MONITORED FOR TRADE

WHICH STANDARD SHOULD A PRODUCER/IMPORTER FOLLOW?...

Residue (mg/kg) versus PHI

Insecticide - **Coffee Beans (in shell)**

No. of Trials	Field or Glasshouse	Application Method	No. of Apps	Application Intervals	Rate Range (g ai/ha)	Analyte
3 Colombia	Field	Foliar Application	3	17 and 6 weeks	883 - 1046	Parent

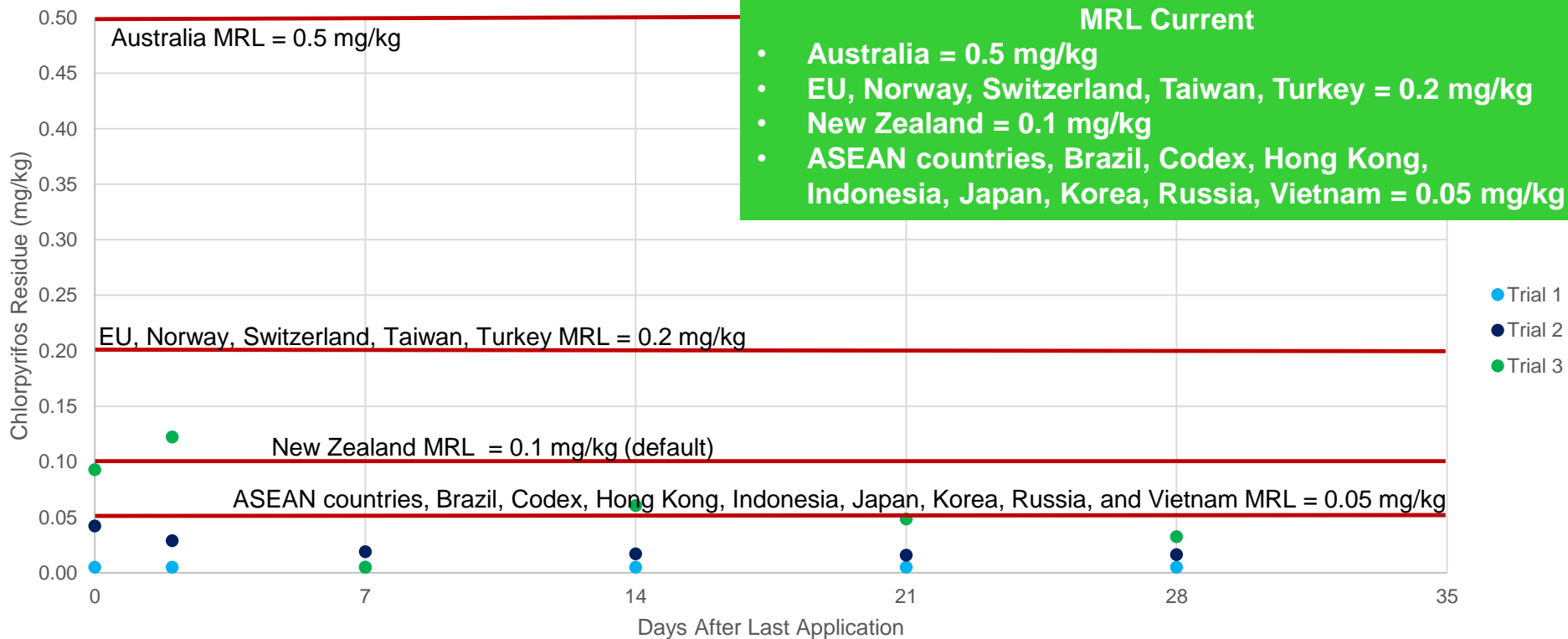


Authorities have established MRLs based on the Good Agricultural Practices represented by these data. Any use of these data for other purposes such as reduced application rates or extended pre-harvest intervals are the sole responsibility of the user and Corteva makes no warranty as to the reliability of these data when used for those purposes.

Residue (mg/kg) versus PHI

Insecticide - Coffee Beans (no shell)

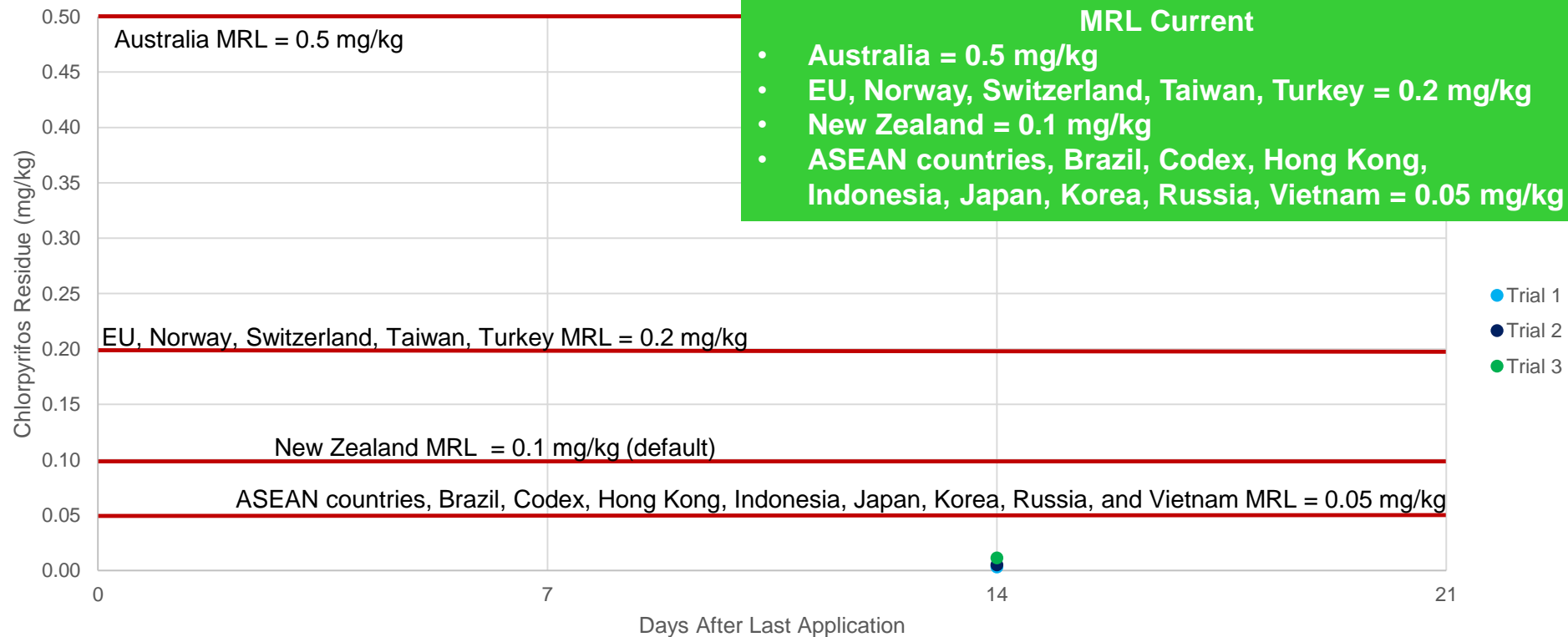
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3 Colombia	Field	Foliar Application	3	17 and 6 weeks	883 - 1046	Parent



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Insecticide on Roasted Beans & Instant Coffee

No. of Trials	Field or Glasshouse	Application Method	No. of Apps	Application Intervals	Rate Range (g ai/ha)	Analyte
3 Colombia	Field	Foliar Application	3	17 and 6 weeks	883 - 1046	Parent



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Further Needs

IMPORT TOLERANCES

- Exponential increase in demand, along with trade increase is not sustainable
- Recognition of production country MRL as IT in importing country is key
 - Based on acceptable risk to consumers in importing country
 - APEC Guideline 2016 is a great precedent, implemented in a few countries

MISSING MRL

- Tolerance Exemption implementation beyond USA
- Tolerances for inadvertent uses (successive crops) outside of USA
- Tolerances for food-handling uses outside of USA, Australia & New Zealand
- Import Tolerance regulations in key countries (China, Brazil)

Further Needs to “Trade-Up”

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...Food... for thought!

Thanks!

Questions?...

Comments?...

Contact

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Lessons Learned:

Learn your global standards

Learn the differences

Address the gaps

Be a maze runner &

Enjoy your meals!

