



**United States
Department of
Agriculture**

**Report of the APEC Food Safety Cooperation Forum (FSCF)
Partnership Training Institute Network (PTIN) Workshop on
“Maximum Residue Limit (MRL) Harmonization:
A Trade Facilitative Approach to MRL Compliance”**



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Executive Summary

The APEC Food Safety Cooperation Forum (FSCF) Partnership Training Institute Network (PTIN) Workshop on “Maximum Residue Limit (MRL) Harmonization: A Trade Facilitative Approach to MRL Compliance” was held in Brisbane, Australia from October 9-10, 2018. The objectives of the workshop were to: 1) share information on how different APEC economies enforce pesticide MRLs and manage MRL violations; 2) examine the role of the private sector in maintaining high levels of compliance with MRLs; and 3) explore the relationships between missing and disharmonized MRLs, MRL violations, trade, and other economic and social factors, including market stability and food security.

The workshop was attended by 46 participants from 17 APEC member economies and 7 non-governmental organizations. Through panel discussions and facilitated break-out groups, participants developed a list of potential best practices for MRL enforcement to enable trade and avoid unnecessary rejection and destruction of safe food.

Introduction

The APEC Food Safety Cooperation Forum (FSCF) Partnership Training Institute Network (PTIN) Workshop on “Maximum Residue Limit (MRL) Harmonization: A Trade Facilitative Approach to MRL Compliance” was held in Brisbane, Australia from October 9-10, 2018. The workshop was self-funded by the United States.

The workshop was attended by 46 participants from 17 APEC member economies and 7 non-governmental organizations (Table 1 and Appendix E).

Table 1: Participation

| Economy or Non-Governmental Organization | Number of Participants |
|--|------------------------|
| Australia | 8 |
| Canada | 1 |
| Chile | 3 |
| China | 2 |
| Indonesia | 1 |
| Japan | 1 |
| Malaysia | 2 |
| Mexico | 2 |
| New Zealand | 1 |
| Papua New Guinea | 2 |
| Peru | 2 |
| The Philippines | 2 |
| Singapore | 1 |
| Chinese Taipei | 1 |
| Thailand | 2 |
| The United States | 4 |
| Viet Nam | 2 |
| Bryant Christie, Inc. | 1 |
| Canada Grains Council | 1 |
| CropLife America | 3 |
| CropLife International | 1 |
| Dragonberry Produce | 1 |
| Indonesia Crop Care Association | 1 |
| Northwest Horticultural Council | 1 |
| TOTAL | 46 |

All presentations and materials from the workshop are available online at: <http://mddb.apec.org/Pages/search.aspx?setting=ListMeeting&DateRange=2018/10/01%2C2018/10/end&Name=Workshop%20on%20a%20Trade%20Facilitative%20Approach%20to%20Maximum%20Residue%20Limit%20Compliance%202018>

Workshop Day 1

The workshop was opened by Mr. Mark Booth, FSCF Co-Chair and Chief Executive Officer of Food Standards Australia New Zealand (FSANZ). Ms. Anna Gore of the United States Department of Agriculture (USDA) provided an overview of the workshop agenda and objectives, which were to: 1) share information on how different APEC

economies enforce pesticide MRLs and manage MRL violations; 2) examine the role of the private sector in maintaining high levels of compliance with MRLs; and 3) explore the relationships between missing and disharmonized MRLs, MRL violations, trade, and other economic and social factors, including market stability and food security.

During Session 1, Ms. Julie Chao of USDA contextualized the need for MRL harmonization amidst the growing challenges of consumer expectations, population growth, food security, and minimizing food loss and waste. Ms. Ann Stevenson of Bryant Christie Inc. presented the findings from a study commissioned by USDA to analyze the extent to which MRLs are misaligned in the APEC region; specific crops and markets for which impacts are greatest; and the effects of MRL violations on trade. Ms. Nathalie Doré of Agriculture and Agri-Food Canada discussed trade-enabling policies for addressing missing and disharmonized MRLs, from both an exporting and importing perspective.

Session 2 convened a panel of government experts to explore similarities and differences in managing MRLs across the APEC region. Mr. Eduardo Aylwin of Chile's Ministry of Agriculture, Mr. William Correll of the United States Food and Drug Administration (FDA), Ms. Rafeah Sibil of Malaysia's Ministry of Health, Mr. Masahiro Takahata of Japan's Ministry of Health, Labor, and Welfare, and Ms. Jocelyn Grethel Cedillo Saldaña of Mexico's Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food delivered informative presentations on MRL regulatory and enforcement policies in their economies. The session generated a robust discussion, during which common themes emerged across economies, including:

- The value and efficiency of risk-based approaches to MRL testing;
- The fact that most MRL violations do not pose food safety risks or human health concerns; and
- The essentiality of risk communication in reassuring the public that food safety systems are operating effectively.



During Session 3, representatives from the private sector discussed challenges and best practices for ensuring compliance with MRLs across multiple markets. Ms. Amy Nguyen of Dragonberry Produce presented a case study on dragon fruit exported from

Viet Nam. Mr. Gord Kurbis of the Canada Grains Council shared an analysis of missing MRLs and their impact on grain production and exports. Ms. Barbara Madden of the Northwest Horticultural Council discussed outreach and communication with growers, packers, and shippers on MRL compliance. The panel posed several key issues for food safety regulators to consider, including:

- The importance of transparency and accessibility in facilitating regulatory compliance;
- The need for targeted enforcement that focuses on specific violators rather than whole industries;
- The critical nature of timing for fresh and perishable commodities; and
- The possibility of enforcement discretion when there is no food safety risk or health concern.



Following the presentations, Session 4 had participants break out into small groups to share experiences from their economies and discuss practical ways for economies to enforce MRLs and manage MRL violations.

Session 5 brought Day 1 of the workshop to a close, with the group reflecting on the day's discussions and identifying common themes and key issues. Participants were asked to consider the following questions before reconvening the next day:

- Do MRL violations really represent a food safety concern?
- Is crop destruction really the only solution in response to a violation?
- What are the constraints that prevent your economy from deferring to the MRL in the economy of origin?
- Are there other areas of flexibility that can be used in your economy when there is an MRL violation?
- How does your MRL enforcement regime take into consideration your economy's overall objectives for imported food?

Workshop Day 2

To begin Day 2, Session 6 convened a panel of government experts to discuss different approaches to MRL enforcement. Mr. William Correll of FDA, Mr. Mark Phythian of Australia's Department of Agriculture and Water Resources, and Mr. Warren Hughes of New Zealand's Ministry for Primary Industries each presented policies and flexible approaches to preventing and managing MRL violations in an increasingly complex trade environment, including:

- Channels of trade provisions to ensure that legally-treated products can clear the marketplace after MRLs are modified;
- Options for re-exporting to markets or redirecting non-compliant shipments to other markets or other acceptable uses (e.g. animal feed);
- Establishment of import MRLs and MRLs for "all other foods" to account for inadvertent residues; and
- Use of Codex and default MRLs (i.e., regulatory thresholds) in the absence of domestic MRLs.

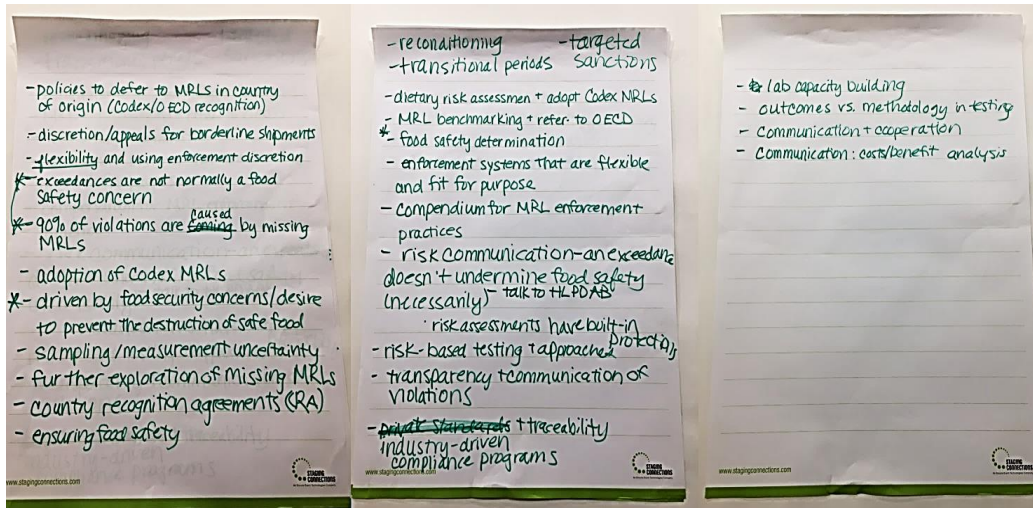
Session 7 transitioned to scenario-driven breakout group brainstorming sessions to identify: 1) flexible and appropriate approaches to MRL enforcement and 2) characteristics that differentiate economies in their enforcement needs and priorities.



Session 8 brought the workshop to conclusion, with participants summarizing key themes from the workshop and identifying potential best practices for MRL enforcement to enable trade and avoid unnecessary rejection and destruction of safe food, including:

- Risk-based approaches to enforcement and testing;
- Targeted testing following a violation;
- Establishment of import MRLs or deferral pathways to mitigate missing MRLs;
- Facilitating transparency and communication about MRL violations;
- Instituting trade-enabling regulations and solutions, including flexible alternatives to crop destruction;
- Leveraging industry-driven compliance programs to reduce MRL violations; and

- Encouraging transparency and predictability in MRL regulatory systems.



There was general consensus among participants that additional work in this area could be valuable, and that future efforts might include: the development of a compendium on MRL enforcement practices across APEC economies; APEC guidance on best practices for MRL compliance, enforcement, and risk communication; and capacity building to implement these best practices.

Conclusion and Next Steps

The United States committed to preparing a report on the workshop and exploring opportunities for future work. The United States also agreed to provide an update at the May 2019 Food Safety Cooperation Forum meeting in Valparaiso, Chile.

Appendix A: Final Workshop Agenda



Agenda

APEC Food Safety Cooperation Forum (FSCF) Partnership Training Institute Network (PTIN) Maximum Residue Limit (MRL) Harmonization Workshop: A Trade Facilitative Approach to MRL Compliance October 9-10, 2018 Pullman King George Square Brisbane, Australia

| DAY ONE | |
|-------------------------------------|--|
| October 9 2018 | |
| 8:30 – 9:00 am | Registration and Arrival |
| 9:00 – 9:10 am | Welcome Remarks Mark Booth , FSCF Co-Chair, Australia |
| 9:10 – 9:20 am | Introduction and Workshop Objectives Anna Gore , United States Department of Agriculture (USDA), United States |
| 9:20 – 10:30 am Session I | Assessing the Economic Impact of MRL Exceedances and Missing or Disharmonized MRLs <i>This session will overview the economic impact of MRL exceedances.</i> Julie Chao , USDA, United States Ann Stevenson , Regulatory Intelligence, Bryant Christie Inc. (BCI), United States Nathalie Doré , Technical Trade Policy Division, AAFC, Canada <i>Questions and Answers</i> |
| 10:30 – 11:00 am | Group Photo and Coffee Break |

| | |
|--|---|
| <p>11:00 am – 1:00 pm Session 2</p> | <p>Part I: MRL Regulatory Enforcement: A Regional Comparison</p> <p><i>This session will explore the similarities and differences in regulatory approaches across the region to enforcing MRLs.</i></p> <p>Moderator: Anna Gore, USDA, United States</p> <p>Speakers:</p> <p>Eduardo Aylwin, Agency for Food Safety and Quality (ACHIPA), Ministry of Agriculture, Chile</p> <p>William Correll, Food and Drug Administration (FDA), Department of Health and Human Services (HHS), United States</p> <p>Rafeah Sibil, Food Safety and Quality Division, Ministry of Health, Malaysia</p> <p>Masahiro Takahata, Ministry of Health, Labor, and Welfare, Japan</p> <p>Jocelyn Grethel Cedillo Saldaña, National Service for Agrifood Health, Safety and Quality, Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food, Mexico</p> <p><i>Questions and Answers</i></p> |
| <p>1:00 – 2:00 pm</p> | <p>Lunch</p> |
| <p>2:00 – 4:00 pm Session 3</p> | <p>Private Sector Leadership: Compliance Assistance/Promotion</p> <p><i>This session will explore self-regulatory mechanisms used the private sector and local governments to maintain high levels of compliance.</i></p> <p>Moderator: Nathalie Doré, Technical Trade Policy Division, Agriculture and Agri-Food Canada (AAFC), Canada</p> <p>Speakers:</p> <p>Amy Nguyen, Dragonberry Produce, Viet Nam and United States</p> <p>Gord Kurbis, Trade Policy – Crop Protection, Canada Grains Council, Canada</p> <p>Barbara Madden, Northwest Horticulture Council, United States</p> <p><i>Questions & Answers</i></p> |
| <p>4:00 - 5:00 pm Session 4</p> | <p>Brainstorming Breakout Groups</p> <p><i>Small groups will share experiences from their own economies and brainstorm on tangible, practical ways their economy can appropriately respond to instances of MRL exceedances.</i></p> |
| <p>5:00 – 5:30 pm</p> | <p>Coffee Break</p> |
| <p>5:30 – 6:00 pm Session 5</p> | <p>End of Day Wrap-Up and Conclusions</p> <p><i>The group will identify best practices that apply to the APEC region in managing MRL exceedances and discuss next steps.</i></p> <p>Moderator: Barbara Madden, Northwest Horticultural Council, United States</p> <p><i>Questions & Answers</i></p> |

| DAY TWO | | October 10 2018 | |
|---------------------|------------------|---|--|
| 8:30 – 9:00 am | | Registration | |
| 9:00 – 9:15 am | | Review and Discuss Outcomes from Day One Julie Chao and Anna Gore, USDA, United States <i>This session will identify key themes and possible next steps.</i> | |
| 9:15 – 11:00 am | Session 6 | Flexibility in a Complex Global Trading System: Responding to MRL Violations <i>This session will explore flexible practices or approaches for managing an MRL exceedance.</i> Moderator: Julie Chao, USDA, United States Speakers: William Correll, FDA, HHS, United States Mark Phythian, Imported Food Program, Department of Agriculture and Water Resources, Australia Warren Hughes, Ministry for Primary Industries, New Zealand | |
| 11:00 – 11:15 am | | Coffee Break | |
| 11:15 am – 12:30 pm | Session 7 | Scenario-Driven Breakout Groups <i>This session will build on the conclusions from Day 1 and the morning's panel to identify: 1) flexible and appropriate practices for MRL enforcement officials, and 2) characteristics that differentiate economies in their enforcement needs and priorities.</i> | |
| 12:30 – 2:00 pm | | Lunch | |
| 2:00 - 3:00 pm | Session 8 | Closing Session Julie Chao and Anna Gore, USDA, United States <i>This session will identify key themes and next steps</i> | |

Appendix B: Brochure

Note: An update brochure is available online at:

http://mddb.apec.org/Documents/2018/SCSC/WKSP8/18_scsc_wksp8_003.pdf



**... 72% of MRLs
are harmonized
regionally**

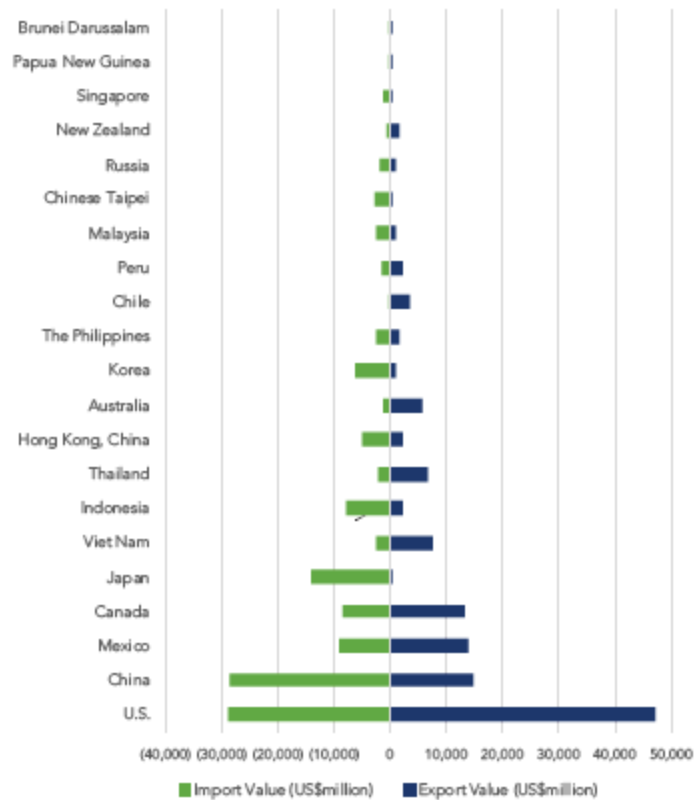
*which means
that for these
commodities,
trade is flowing
relatively freely.**



Pesticide MRLs are limits set by regulatory authorities to ensure that pesticide use does not cause unnecessary harm to the environment or human health. When agricultural products are imported, border officials test some shipments to ensure that products being imported do not exceed their domestic MRL. When economies have different MRLs, or when economies don't have an MRL at all, it can pose a barrier to trade that increases food insecurity, makes food more expensive, and hurts the economy of both the importing and exporting country.

The United States Department of Agriculture (USDA) recently commissioned a study. We assessed MRL harmonization and the associated economic impact of disharmonized or missing MRLs in the region for 35 commodities.*

APEC Imports and Exports of Select Commodities with MRLs, 2017*

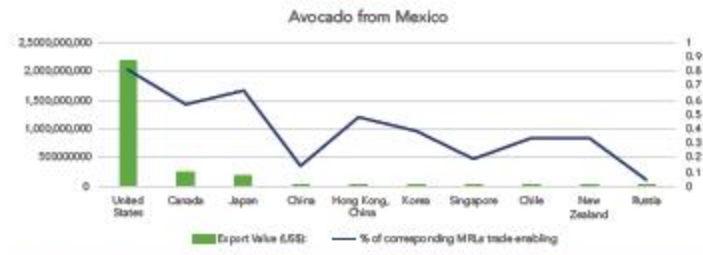
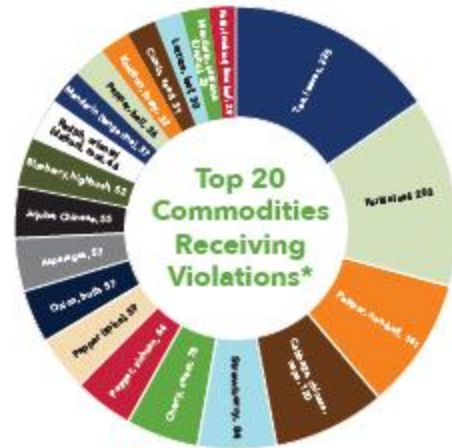


* The analysis referenced above includes the following 35 commodities: cherries, celery, oat grain, peaches, rice, soybean, corn grain, wheat grain, sorghum grain, almond, apple, lettuce, strawberry, orange, grape, field pea, tomato, onion, potato, carrot, ginseng, walnut, raspberry, cranberry, peanut, tea leaves, cane sugar, cacao beans, bananas, avocado, canola/ rapeseed, kiwifruit, macadamia nut, dragon fruit, quinoa

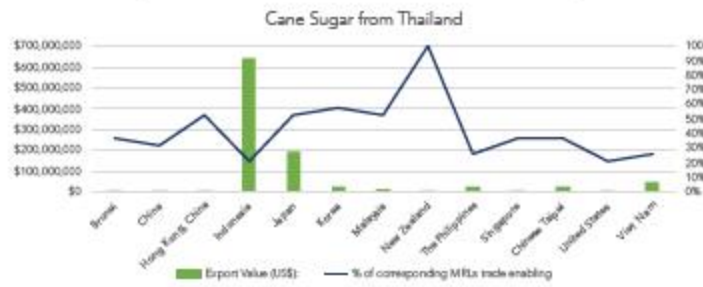
Although for many commodities there is a high degree of MRL harmonization in the region, there are still many instances in which trade can be unnecessarily disrupted because of missing or disharmonized MRLs. These barriers can cause MRL exceedances, which can cause safe food to be destroyed at the border.

AN MRL EXCEEDANCE DOES NOT INDICATE THAT FOOD IS UNSAFE FOR HUMAN CONSUMPTION

Here are some further findings from our study.



For certain commodities and markets, there is a high degree of correlation between the percent of MRLs harmonized and high value exports.



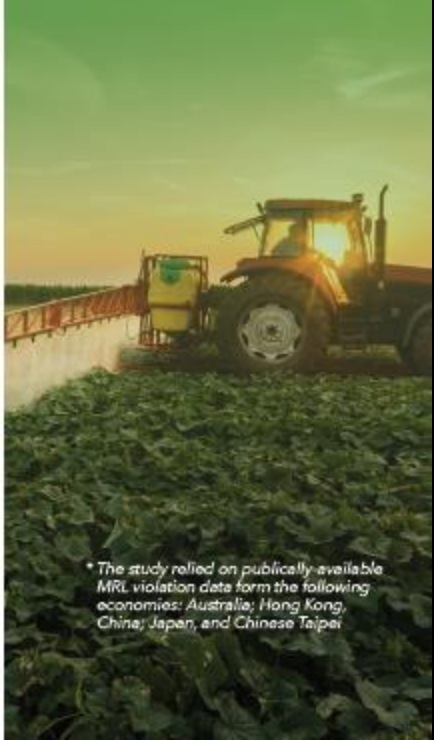
For other commodities and markets, there is not a strong relationship between high value exports and MRL harmonization. This impedes regional trade and access to safe, affordable food.

"MRLs are an important issue for trade and trade development. When governments talk about trade, they discuss pests but not MRLs."

- President, Dragonberry Produce

"When an MRL violation occurs, both the growers and the processors who rely on the input commodity have to manage the financial cost and also have to work to protect their reputations and relationships."

- Grower Association



* The study relied on publicly available MRL violation data from the following economies: Australia; Hong Kong, China; Japan, and Chinese Taipei



"When pesticide MRLs are missing in key export markets, it costs everyone in the value chain - including customers. Costs to ensure compliance and prevent trade disruption may not be visible to customers, but these costs are real and significant."

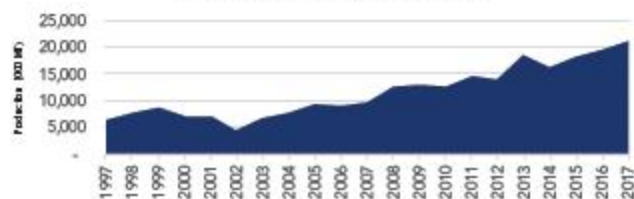
-Canola Council of Canada

CASE STUDY

In 2015, the Canadian government approved the use of a new, safe pesticide for canola. This new tool created a substantial increase in crop yields. However, an MRL had not yet been set for this chemical in several of Canada's most important export markets. ***This resulted in a huge amount of excess product that was wasted, and losses that the Canola Council of Canada estimate to be about \$390 million USD.*** Several years later, the other economies established MRLs for the new chemical and trade resumed.

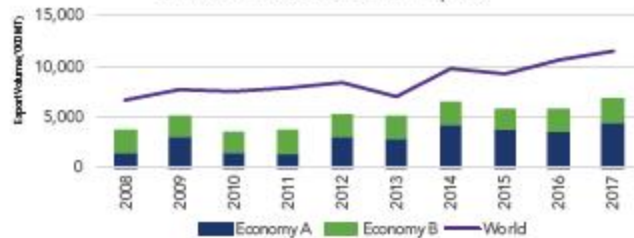
Our work in APEC on MRL Harmonization aims to develop creative solutions for these complex challenges as they arise, so that we can overcome these barriers to regional trade.

Canadian Canola Production



While Canadian canola production increased from 2015-2016...

Canadian Canola Seed Export



...and exports increased to the world overall, exports of canola oil fell to two of Canada's major importers in 2015 and 2016 as a result of missing or disharmonized MRLs.

CREDITS

This brochure was created by the USDA's Foreign Agricultural Service, Nathan Associates, and Bryant Christie, Inc with support from Julie Cerenzia, Ann Stevenson, Kim Berry, Te'unya Atwood, Trevor Newton, Lori Tortora, Julie Chao, Jason Sandahl, and Anne Gore.

Appendix C: Breakout Group Materials

Day 1 – Session 4: Brainstorming Breakout Groups

Guidance: Each participant is asked to think about the questions below and share their answer with the group. Please designate a scribe to record all the answers from each economy and a speaker to share a summarized version of the key points from your discussion with the larger group after your smaller breakout group discussion is over.

Question #1: What are ways that you think enforcement could be improved in your own economy? Please provide specific examples and try to make your suggestions as *practical* as possible.

Question #2: What do you think the costs and benefits would be of instituting the changes you have identified for your economy?

Question #3: Do you think these changes would work in other economies that are different than yours? Why or why not? What are the key features of your regulatory system that make it a good candidate for the improvements you have identified?

Day 2 – Session 7: Scenario-Driven Breakout Groups

Guidance: Review the scenario described below. Give each group member an opportunity to share how the situation would be handled in their economy. From the range of responses, please develop 3 distinct ways to handle the situation. Compare the pros and cons of each approach, identifying how those costs/benefits might change in different kinds of economies with different enforcement priorities.

Scenario #1: A shipment of cherries is exported to your economy. Routine testing of the shipment detects pesticide residues of a chemical that has no registered use in your economy. There is a Codex MRL for this chemistry and the residue detected is below it. Should the shipment be allowed in, or not? What are some alternative ways to handle the situation? What actions would be appropriate to take in the future when receiving shipments of this commodity from this economy? From this exporter?

Scenario #2: A shipment of oranges is exported to your economy. Routine testing detects fungicide residues of a chemical in excess of your domestic MRL. Your domestic MRL is 2.5ppm and the test results show results of 3.6ppm (difference of 1.1ppm). The test results are from samples taken from the peel of the fruit, which is not consumed at point of sale. Test results provided by the exporter of the meat of the fruit show residues of 0.5ppm. Your domestic lab has not yet conducted tests of the meat of the fruit. Should the shipment be allowed in, or not? What are some alternative ways to handle the situation? What actions would be appropriate to take in the future when receiving shipments of this commodity from this economy? From this exporter?

Scenario #3: A shipment of celery is exported to your economy. Routine testing detects pesticide residues of 1.6ppm. Your domestic MRL is 1.4ppm (difference of .02ppm). After consultations with technical experts in your economy it is established that a difference of .02ppm does not represent a risk to human health. Should the shipment be allowed in, or not? What are some alternative ways to handle the situation? What actions would be appropriate to take in the future when receiving shipments of this commodity from this economy? From this exporter?

Scenario #4: A shipment of beans is exported to your economy. Routine testing detects pesticide residues of 1.2ppm of a chemical that has no registered use in your economy. This is a new chemistry with few registered uses globally. This same grower exported beans with the same chemical that was detected 2 years ago. The previous shipment was destroyed due to the MRL violation. Subsequent tests have not detected the chemical until this one. The residue level is less than the MRL in the exporting economy and other economies where there is a registered use. Should the shipment be allowed in, or not? What are some alternative ways to handle the situation? What actions would be appropriate to take in the future when receiving shipments of this commodity from this economy? From this exporter?

Scenario #5: Seven months ago, your economy instituted a positive list system for MRLs. As part of this new system, you have lowered the MRL for atrazine from 5ppm to 3ppm for apples. The Codex MRL for atrazine on apples is 4ppm. You receive a shipment of apples and routine testing detects residues of 3.7ppm. At the time the apples were grown, they were compliant with the old MRL, but since then the MRL has been lowered. Should the shipment be allowed in, or not? What are some alternative ways to handle the situation? What actions would be appropriate to take in the future when receiving shipments of this commodity from this economy? From this exporter?

Appendix D: Participant List

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