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North American Plant Protection Organization  
Organización Norteamericana de Protección a las Plantas  
**MEXICO - USA - CANADA**

# *Setting the stage*

## **Precision Safeguarding and The International Regulatory Framework**

Why is the topic important to the NAPPO region?



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# Definitions

## ***Precision***

- *noun* – quality or state of being precise = **exactness**
- *adjective* – adapted for extremely accurate measurement or operation

## ***Safeguarding***

- *verb* – **protect from harm or damage with an appropriate measure**
- *noun* – a measure taken to protect someone or something or to prevent something undesirable



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# Agreements and Treaties

**SPS Agreement** – countries' Sanitary and Phytosanitary *measures* must be *based* on an appropriate *assessment of the risks* involved

- Measures must be *based on assessed risk* – appropriate response(s) must be commensurate with the risk
- Why waist resources (time and money) on less risky things?

# Definition of SPS measure

**protect: from risks from:**

human or animal life	{ additives, contaminants, toxins or disease-causing organisms in food, beverages, feedstuffs;
human life	{ plant- or animal-carried diseases [zoonoses];
animal or <b>plant life</b>	{ <b>pests, diseases, or disease-causing organisms;</b>
<b>a country</b>	{ <b>damage caused by entry, establishment or spread of pests</b>



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# Agreements and Treaties

- IPPC – plant protection agreement; named as the standard setting organization in the SPS Agreement
- ISPM 5 – **Glossary of Phytosanitary Terms**
- **Phytosanitary Measures** – any *legislation, regulation or official procedure* having the purpose to prevent introduction or spread of quarantine pests

# Precision Safeguarding: *Risk-based Designs for Safe Trade*



The historical view of safeguarding has been based on pest exclusion designs that focus primarily on inspection at the border and require the strongest possible response for organisms that could meet the defining criteria for a quarantine pest. Since 1994, the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) tells us that this approach is legitimate for emergency actions, but phytosanitary measures that are routinely applied need to be the least restrictive actions to achieve the appropriate level of protection based on the risk of pest introduction. The appropriate response is therefore adjusted to the risk. Adopting this approach makes resources that would be wasted on overreactions to low risk situations available to better manage risks that have been identified as more significant. The objective of risk-based designs is to be more precise, strategic, and effective by leveraging data and analysis to prioritize and target risk.

## Risk-based Regulations (RBR)

A wide range of opportunities exist for policy adjustments that promote precision safeguarding. One key area is in regulatory design; moving toward less prescriptive regulations in favor of standards-based designs for enterable articles (a white list) linked to risk analysis. The effect of this shift is to reduce investments in rulemaking while also increasing flexibility for policy-makers to address risk based on scientific evidence and analysis.

Risk management is fertile ground for new regulatory designs, especially those associated with systems approaches, offshore programs, and other strategies that take advantage of multiple opportunities to mitigate pest risk across the safeguarding continuum. These designs allow for greater flexibility to align programs with the risk and leverage the actions and activities of the private sector beyond what may be officially prescribed only for National Plant Protection Organizations. The adoption of policies to allow for third-party auditing and monitoring programs and reducing oversight for high-compliance entities allows for shifting resources to higher risk programs.

## Risk-based Sampling (RBS)

The fate of hundreds of consignments in ports around the world is decided every day based on inspection for both the certification of exports and the clearance of imports. Inspection for the detection of harmful exotic pests is a sampling process based on the statistical concepts associated with the probability of detection. By designing inspection processes around basic statistical concepts, inspection programs are able to better identify and rank non-compliant imports. Ranking based on action rates associated with pest interceptions helps inspectors and policy makers to identify riskier imports and then adjust resources and policies to maximize the effectiveness of inspection. RBS helps trade by providing a transparent and predictable process designed to consistently detect the same level of infestation regardless of shipment size. The results of RBS inspections provide the data needed to confidently rank imports in categories that reflect their phytosanitary status and changes in their phytosanitary status over time. Overlaying inspection policies on these categories creates the opportunity to reduce inspection frequency and/or intensity for low risk imports thereby rewarding the importers of clean material with expedited clearance.

**It's Win — Win — Win!** Faster clearance for importers, less time for inspectors on low risk imports, and better overall risk management.

## Risk-based Treatments (RBT)

Treatments have a long history of development around the assumptions of a worst-case scenario and one-size-fits-all design for a single mitigation with high-efficacy based on mortality. As a result, most treatments are an over-reaction to the pest risk. In instances of high infestation where even a few survivors are a problem, the treatment may even be an under-reaction. The lack of alignment with risk is problematic from the standpoint of consistent risk management. It can also result in a waste of resources and an unnecessary burden to commerce.

In emergency situations it may be necessary to use a treatment without regard to its alignment with the risk simply because there isn't the opportunity to be more precise. Treatments that are prescribed in advance as conditions for trade are different because the strength of measures (efficacy in the case of treatments) should have a rational relationship with the risk.

Many existing treatments were adopted before pest risk analysis was practiced. The efficacy of many treatments may be substantially reduced and other treatments eliminated completely by simply evaluating the action policy for the treatment to align it with the risk; aiming for an efficacy level that is consistent with the infestation level and likelihood of introduction. These strategies have the added advantage of reducing the use of environmentally harmful pesticides such as methyl bromide.



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# Definitions

**Sweet spot** - An optimum point or combination of factors and qualities





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# Definitions

**Sweet spot in business** - The point at which an indicator or policy provides the **optimal balance of costs and benefits**





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# Precision Safeguarding

The point at which (decision) to apply a phytosanitary measure to protect from and prevent the introduction or spread of quarantine pests is based on an exact balance of costs and benefits





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Why is **Precision Safeguarding** important to  
the NAPPO region?

## ***Article IX of the IPPC***

1. The contracting parties (currently 183 countries) undertake to cooperate with one another in **establishing RPPOs** in appropriate areas.
2. The RPPOs shall function as **coordinating bodies** in the areas covered, shall participate in various activities to achieve the objectives of this Convention and, where appropriate, shall gather and disseminate information.
3. The RPPOs shall cooperate with the IPPC Secretary in **achieving the objectives of the Convention and, where appropriate, shall cooperate in developing international standards.**
4. The Secretary will convene regular Technical Consultations of RPPOs to
  - a. Promote development and use of relevant ISPMs and
  - b. Encourage inter-regional cooperation in promoting harmonized phytosanitary measures for controlling pests and in preventing their introduction and/or spread.



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## Objectives

- encourage/facilitate cooperation to prevent entry, establishment and spread of regulated pests into our NAPPO region;
- facilitate/promote safe international trade in plants, plant products and other regulated articles between our countries and with other trading partners;
- maintain involvement in hemispheric and global plant health efforts.



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## Precision Safeguarding and NAPPO objectives

- **OPTIMIZE** cooperation to prevent entry, establishment and spread of regulated pests into the NAPPO region;
- **OPTIMIZE** safe international trade in plants, plant products and other regulated articles between our countries and with other trading partners;
- **OPTIMIZE** involvement in hemispheric and global plant health efforts.



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<b>SECTION 1 - Foundational Lectures –</b> precision ag., safeguarding continuum and precision safeguarding	<b>IICA, APHIS-PPQ and CFIA + demonstrations</b>
<b>SECTION 2 - Tools for Precision safeguarding – risk-based approaches</b>	<b>SENASICA, APHIS-PPQ, CFIA</b>
<b>SECTION 3 - Enhancing Industry’s Role in Risk Management – trade, offshore and certification perspectives</b>	<b>APHIS-PPQ, AmericanHort, Canadian Lumber Standards Accreditation Board</b>
<b>SECTION 4 - Brainstorming for the Future</b>	<b>Your turn!!</b>

THANKS TO THE Symposium planning group!!