PROCINORTE
CANADA · MEXICO · USA

Supporting Agriculture in North America

Guided by Science, Improved Technologies and Science-based Policies

Agriculture and Agri-Food Canada

inifap
Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias

USDA

IICA

- **PROCINORTE – A MECHANISM FOR SHARING KNOWLEDGE AMONG 3 CENTRES OF SCIENTIFIC EXCELLENCE IN AGRICULTURE IN THE NORTHERN REGION**

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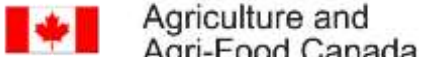
ORGANIZATIONS THAT CONSTITUTE PROCINORTE

- ✓ Agriculture & Agri-Food Canada
- ✓ Canadian Food Inspection Agency

- ✓ United States Department of Agriculture – Agricultural Research Service

- ✓ Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias.
- ✓ Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria

- ✓ Inter-American Institute for Cooperation on Agriculture



Supporting Agriculture in North America

Guided by Science, Improved Technologies and Science-based Policies

VISION

The Governments of Canada, Mexico, and the United States working together, in consensus, and through their national agricultural research institutions to problem-solve and support agriculture in the North American region with science, improved technology, and scientifically-based policy guidance.

MISSION

To mutually strengthen agriculturally related governmental and stakeholder collaboration in research, development, and science-based policies to:

1) **Enhance** sector productivity and competitiveness;
2) **Improve food safety** and plant and animal health, and
3) **Contribute to capacity building** through collaborative science and technology activities

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PROCINORTE COMPOSITION

Board of Directors: Highest authority, senior level officials from the member organizations, annual meetings. President appointed by consensus among BOD members for 2 years, for maximum extension for 4y as per terms of reference.

Task Forces: Mechanism for tri-lateral collaboration, senior scientists (heads of national programs), appointed by her/his government, one elected by consensus as chair. Each year the BOD reviews the constitution of each TF and approves their plans.

Executive Secretary (IICA) including support from IICA representatives in Canada, USA and Mexico, and Headquarters, and logistic/administrative support.

PLANT HEALTH TASK FORCE & FOCUS

Dr. José Isabel López-Arroyo
- Instituto Nacional de Invesgitacionces Forestales Agricola y Pecuarias (INIFAP)

Dr. Rose Hammond
- United States Department of Agriculture – Agricultural Research Service (USDA-ARS)

Dr. Della Johnston
- Agriculture & Agri-Food Canada

PLANT HEALTH
- Promote joint research projects
- Capacity building and linking specialists and projects for proactive research on invasive pests and diseases
- Promote knowledge sharing on pests/diseases of tri-lateral interest through several means
- Carry out outreach activities with other countries and regions in LAC

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PLANT HEALTH TASK FORCE WORKSHOP 2016

Ottawa, Ontario, CANADA

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Approaches to control diseases vectored by ambrosia beetles in avocado and other American Lauraceae

- Using entomopathogens to control ambrosia beetles.
- Using microbial antagonists to control the fungal pathogens ambrosia beetles vector
- Improving the identification and phylogenetics of ambrosia beetle and their fungal symbionts.

Female redbay ambrosia beetle

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Utility of Molecular Diagnostic Tools for Detection and Identification of New and Emerging Pests

- Identification
  - Genetic characterization
  - Develop species-specific primers
- Monitoring and detection
  - Shipment / border inspection
  - Environmental DNA – trap catches
  - Damaged, fragmented samples
  - Immature specimens
- Movement and spread
  - Phylogeography of the pest
  - Invasion routes, pathways of entry

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Zebra Chip Disease: A New & Global Threat to the Potato Industry

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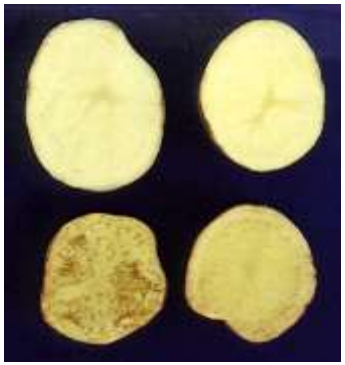
Tolerance of potato genotypes to internal browning induced by *Bactericera cockerelli* carrying *Ca.* Liberibacter solanacearum under greenhouse conditions in Mexico

Objectives. The aim of this work was to select tolerant potato genotypes to potato tuber browning under greenhouse conditions.

296 Genotypes

Metal cages

Psyllid colony on domestic pepper



Browning tuber degrees and Weight evaluation

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Low potato psyllid vector levels and absence of the zebra chip disease in Canada

Potato Psyllid

Bactericera cockerelli

Vector of *Candidatus* Liberibacter solanacearum

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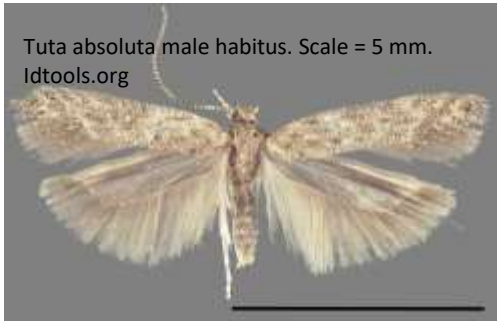
Tomato leaf miner

Larva (Spain; Hasbrouck Insect Collection).

A ravaged tomato screen house by *T. absoluta* in Ogun State, Nigeria
National Horticultural Research Institute (NIHORT)



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Importation and release of biological control agents in Canada, Mexico and the U.S.

- Biological control in North America
- Regulatory oversight in Canada, Mexico and the United States
- Requirements for importation of non-indigenous biological control agents
- Requirements for release of non-indigenous biological control agents
- Movement of biological control agents among PROCINORTE countries
- Facilitating exchange of biological control agents

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Tour of Canadian Collection of Insects, Arachnids and Nematodes

- One of the five largest collections of its kind in the world
- > 17 million specimens

- Primarily used to identify:
  - unknown species and develop control measures to reduce the flow of invasive alien species;
  - new pests of concern, for example the Emerald Ash Borer and the Asian Longhorn Beetle
  - potential indicators of environmental health and climate change;
  - insect vectors that carry diseases such as West Nile Virus and Lyme Disease
- Also
  - document changes in species and the environment over time for both native and introduced fauna;
  - forecast the spread of invasive species;
  - develop pest control methods, including integrated pest management;

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THE PROCINORTE STRATEGIC PLAN 2016-2020

- Focuses on ***priorities*** shared among Canada, Mexico and the United States.
- Ensures that PROCINORTE continues its catalytic role in ***knowledge sharing*** between researchers and regulators from the member organizations.
- Creates a ***platform to mobilize knowledge*** from the three scientific centers of excellence (AAFC-STB, USDA-ARS and INIFAP) for the benefit of other countries in the ***hemisphere***.
- Contributes to the ***agricultural dialogue*** in the hemisphere through the appropriate policy bodies.

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STRATEGIC OBJECTIVES

1. Share knowledge on agreed priority themes by mobilizing public sector researchers and scientists, incorporating science for regulation when appropriate.

2. Strengthen mutually supportive regional networks in priority topics of relevance for agricultural trade.

3. Contribute to the deliberations of regional/hemispheric agricultural science and technology bodies, in particular the Forum for the Americas on Agricultural Research and Technology Development (FORAGRO), the Global Forum on Agricultural Research (GFAR), the Global Conferences on Agricultural Research and Development (GCARD) and the G20 Meeting of Agricultural Chief Scientists (MACS).

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Foragro

GFAR

GCARD3 2015 | 2016

G20 2016 CHINA

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THANK YOU!!

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