



# **19<sup>th</sup> Review Conference Presentations on member countries work in agriculture**

Dr Ulrich Kuhlmann, Executive Director, Global Operations  
and presenters from Canada, China, Ghana, Jamaica,  
Pakistan and Uganda



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada



# Working in Partnership with CABI

Michele Marcotte, Ph.D.

Director Research, Development, and Technology

National Lead – Biodiversity and Bioresources Science Strategy

Ottawa Research and Development Centre

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Canada

# A Partnership for 67 years

**1929** – **Imperial Parasite Service** of the Imperial Agricultural Bureaux, located at the Farnham House Laboratory in England, was responsible for Canada's work overseas.

**1940** – **Imperial Agricultural Bureaux** relocated Imperial Parasite Service to Belleville to escape the World War II

**1948** – headquarters of **Commonwealth Bureaux of Biological Control** transferred to Ottawa, Canada

**1951** – **Commonwealth Institute of Biological Control (CIBC)**, substations in Switzerland, West Indies (Trinidad) and California, USA

**1959** – CIBC moved from Ottawa to Trinidad

**1984** – CIBC headquarters moved to Ascot, UK

# Building capacity

The Canadian government through the Canadian International Development Agency (CIDA) funded totally or partly the establishment of station buildings in Kenya, India and Pakistan.



**Kenya Station**



**India Station**



**Pakistan Station**



**Trinidad Station**

# CABI Switzerland

**1948** – CBBC substation set up in Switzerland to serve Canada's needs; based in Feldmeilen close to Zurich

**1963** – new laboratory opened in Delémont on “Rue des Grillons” (Cricket Street)

**2000** – addition added to accommodate growing programs

Canada 





# CABI's role in Canadian efforts targeting invasive insect pests and weeds

## Assessing feasibility of biological control

- Field and literature surveys to look for possible biological control agents

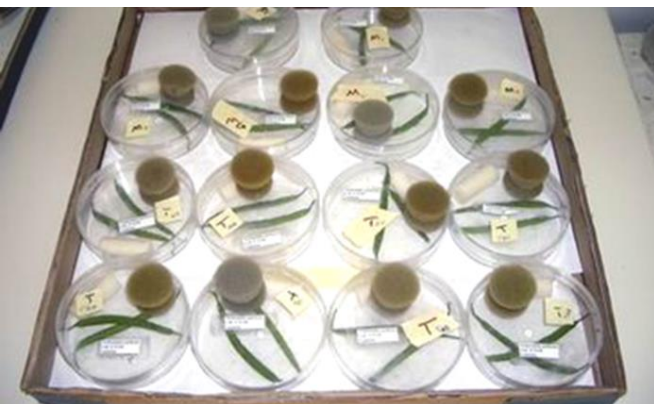
## Discovering potential biological control agents

- Field collections, setting up rearing colonies
- Determine the biology/life history of agents

## Selecting and assessing suitable agents

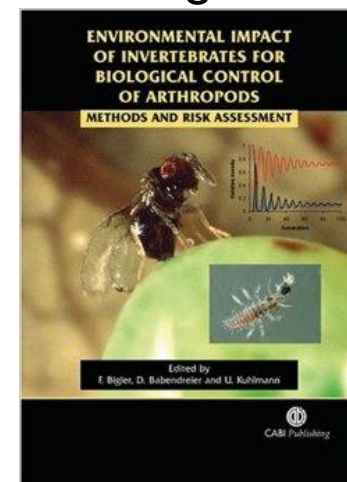
- Host-specificity testing for safety
- Evaluate potential for damage





# Towards safer biological control

- Joint efforts of CABI and AAFC to improve protocols for regulation of exotic biological control
- Major focus on risk assessment for classical biological control agents
- CABI and AAFC scientists made a major contribution to development of new testing methodology/international guidelines
- Ongoing testing to validate guidelines through practice



# Arthropod biological control agent releases

Petition for cage- and open field release of *Tetrastichus setifer* (Hymenoptera: Eulophidae) for biological control of the Lily Leaf Beetle, *Lilioceris lili* (Coleoptera: Chrysomelidae) in Canada



Submitted by:

N. Cappuccino<sup>1</sup>, P. Mason<sup>2</sup>, R. Casagrande<sup>3</sup>, M. Kras<sup>4</sup>, T. Hays<sup>5</sup>, L. Tewksbury<sup>3</sup>

<sup>1</sup>Department of Biology, Carleton University, 1125 Colonel By Drive, Ottawa, Ontario, K1S 5B6 CANADA Tel: 613-520-2000 Ext. 4503 Fax: 613-520-3539 email: [n.cappuccino@carleton.ca](mailto:n.cappuccino@carleton.ca)  
<sup>2</sup>AgriScience and Agro-Food Canada, 6 W. Smythe Building, 960 Carling Avenue, Ottawa, Ontario, K1A 0G5  
<sup>3</sup>USDA, Agricultural Research Service, 1125 Colonel By Drive, Ottawa, Ontario, K1A 0G5  
<sup>4</sup>USDA, Agricultural Research Service, 1125 Colonel By Drive, Ottawa, Ontario, K1A 0G5  
<sup>5</sup>USDA, Agricultural Research Service, 1125 Colonel By Drive, Ottawa, Ontario, K1A 0G5

Petition to introduce *Diadromus pulchellus* Wesm. (Hymenoptera: Ichneumonidae) as a Classical Biological Control Agent for Leek Moth, *Acrolepiopsis assectella* (Zeller) (Lepidoptera: Acrolepiidae), in Canada



Submitted by:  
 Peter G. Mason<sup>1</sup>, Wade H. Jepson<sup>2</sup>, Jean-François Landry<sup>3</sup>,  
 Naomi Cappuccino<sup>4</sup>, Ulrich Kuhlmann<sup>5</sup>

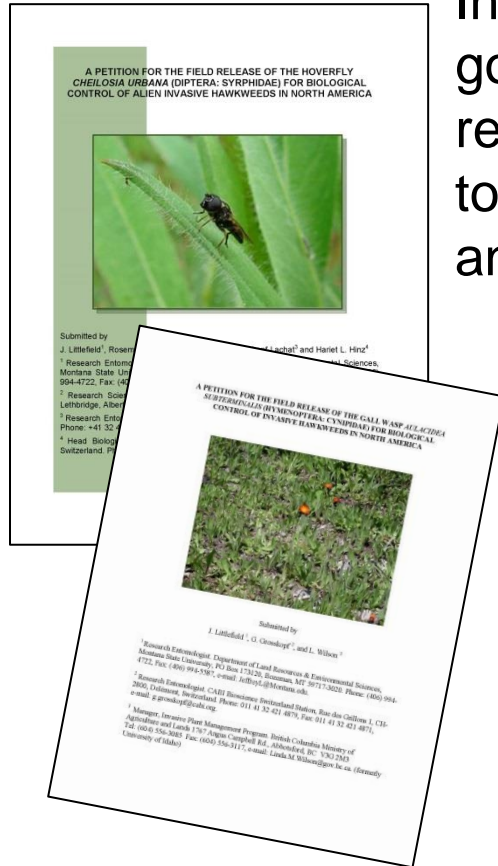
<sup>1</sup>Agriculture and Agri-Food Canada, K.W. Neatby Building, 960 Carling Avenue, Ottawa, Ontario, K1A 0G5  
 CANADA Tel: 613-796-1700 Fax: 613-796-1701 email: [peter.mason@agr.gc.ca](mailto:peter.mason@agr.gc.ca)  
<sup>2</sup>CABI Europe - Switzerland, Rue des Grilles 1, CH-2900 Delémont, SWITZERLAND Tel: 011-41-32-421-4882  
 Fax: 011-41-32-421-4877 email: [w.jepson@cabi.org](mailto:w.jepson@cabi.org)  
<sup>3</sup>Agriculture and Agri-Food Canada, K.W. Neatby Building, 960 Carling Avenue, Ottawa, Ontario, K1A 0G5  
 CANADA Tel: 613-796-1700 Fax: 613-796-1701 email: [jean-francois.landry@agr.gc.ca](mailto:jean-francois.landry@agr.gc.ca)  
<sup>4</sup>Department of Biological Sciences, Carleton University, 1125 Colonel By Drive, Ottawa, Ontario, K1S 5B6  
 CANADA Tel: 613-520-2000 Ext. 7540 Fax: 613-520-3539 email: [naomi.cappuccino@carleton.ca](mailto:naomi.cappuccino@carleton.ca)  
<sup>5</sup>CABI Europe - Switzerland, Rue des Grilles 1, CH-2900 Delémont, SWITZERLAND Tel: 011-41-32-421-4882 Fax: 011-41-32-421-4877 email: [u.kuhlmann@cabi.org](mailto:u.kuhlmann@cabi.org)

In 2010 the Canadian government approved the releases of parasitoids against the invasive leek moth and the lily leaf beetle

Control agents from Europe have been released against more than 50 invasive agricultural pests, primarily in North America. CABI contributed to the successful control of important agricultural pests such as **cereal leaf beetle**, apple ermine moth, **alfalfa weevil** and **Lygus plant bugs**

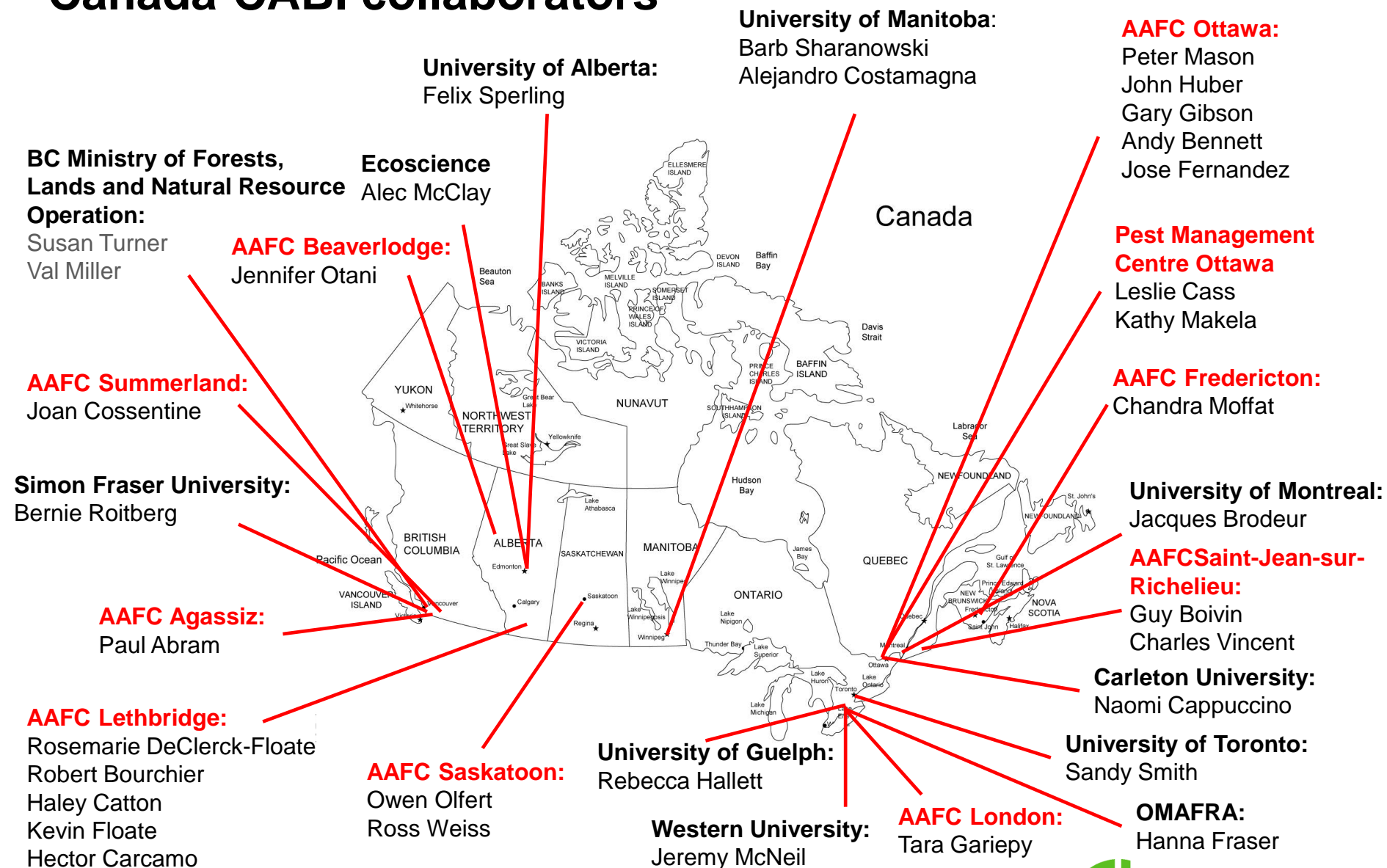
# Weed biological control agent releases

In 2011-2015 the Canadian government approved releases of agents against toadflax dog strangling vine and hawkweeds.



Since 1952, 45 agents from Europe have been released against 27 weed species. Among these, 10 are “star performers”, e.g., *Neogalerucella californiensis* has controlled *Lythrum salicaria*

# Canada-CABI collaborators

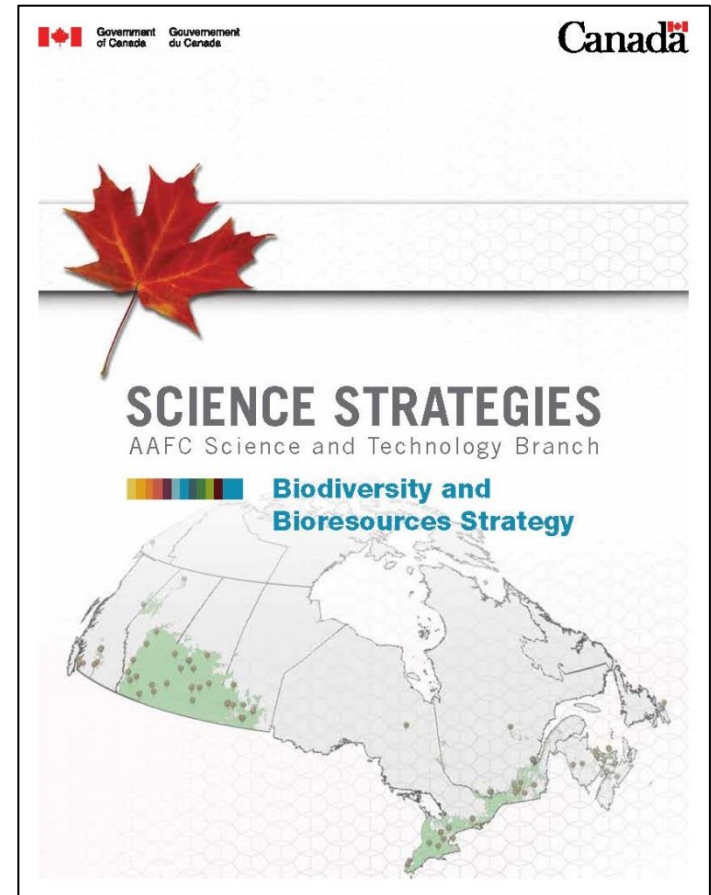


# Canada's national priorities

STRATEGIC OBJECTIVES	SECTOR STRATEGIES						
	Cereals & Pulses	Oilseeds	Horticulture	Forages & Beef	Dairy, Pork, Poultry and Other Livestock	Agri-Food	Bioproducts
Increase agricultural productivity							
Enhance environmental performance							
Improve attributes for food and non-food uses							
Address threats to the value chain							
	Biodiversity and Bioresources				Agro-Ecosystem Productivity and Health		

Areas of Focus

- Development of mitigating biological control strategies for integrated pest management (IPM) for established invasive pests and emerging, invasive or quarantine pests.
- Mining biological collections for agriculturally relevant organisms and development of appropriate identification tools using modern technologies.



# Americas-CABI: the future

## ***Strengthening partnership with CABI***

- supporting CABI laboratories in source countries (e.g. China)
- contributing to Invasive Species Compendium

## ***Partnering with other CABI member countries***

- pooling resources to discover potential IAS and biological control agents
- understanding Access & Benefits Sharing legislation
- scientist & student exchanges to address global issues such as climate change



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# Thank you!

For more information, please contact:

[Michèle.Marcotte@agr.gc.ca](mailto:Michèle.Marcotte@agr.gc.ca)

Canada 