



Agriculture and  
Agri-Food Canada

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Agroalimentaire Canada



## North American Success Model

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Pest Management Centre (PMC)  
IUPAC – Minor Use Symposium  
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Canada 

# Presentation Outline

- **Introduction/Context**
  - Responding to Grower needs
  - Agriculture Policy Framework / Growing Forward
- **Elements of Good model**
- **Partnerships**
  - IR-4, PMRA, Growers, Registrants, AAFC Scientists
- **Harmonization**
  - Global
  - Canada / US
  - NAFTA
- **Update on PMC**
  - Minor Use Program (MUP)
  - Risk Reduction Program (RRP)
  - Governance
  - Communication
- **The Way Forward**

# Canada – a diverse agronomic economy

-220,000 farms

-\$42 Billion Industry – 1 in 8 jobs related to the sector

- 7,500 fruit and vegetable operations

- Average of \$225,000 annual operating revenue

- 3,500 greenhouse operations

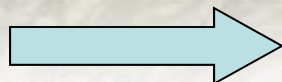
- Average of \$950,000 annual operating revenue



# Responding to Grower Need Increases Grower Competitiveness

## DRIVERS

- Gaps in need
- Availability
- Health concerns
- Competitiveness
- Trade Irritants
- Transparency



## CHALLENGES

Products not available in Canada

Canada's use is less than 3% of Global Market – of that, less than 2% is for minor uses

Assist in reducing risks to environment, health – resulting in safer food

Lack of tools causes lower yield, quality, price, reputation

Non-harmonized MRL's

Growers set Priorities – increased decision making role

# NEEDS + POLICY = SOLUTIONS

Growers approach Federal Government  
-brings IR-4 model, potential partnerships, (registrants  
Provinces, AAFC Research Branch, PMRA)

**Pest Management Solutions for  
Growers**

Government evaluation, recognition  
of needs

- mandate, terms and conditions,  
outcomes, performance review
- Provides multi-departmental, multi-year funding

Creates PMC-PMRA led  
MUP and PRR Programs

- build partnerships
- working within Canada's unique regulatory  
processes

## *Growing Forward*

### New Federal/Provincial/Territorial Agreement Brings Stability to the Sector

- The Agricultural Policy Framework (APF) Implementation Agreements with provinces and territories expired in March 2008. The APF is replaced by *Growing Forward*, a 5 year multilateral framework agreement.
- The *Framework Agreement* paves the way for new programs that support the *Growing Forward* vision, in addition to outlining three common policy outcomes:
  - A Competitive and Innovative Sector
  - A Sector that Contributes to Society's Priorities
  - A Sector that is Proactive in Managing Risks

# Elements of a Successful Model

- **Grassroots/business motivate change:**
  - Leadership from private sector to educate, and demonstrate need
- **Policy Decision:**
  - Decision-makers - recognition of public policy need to resolve issue
  - Demonstrate the public benefits increased Government role.
- **Budget:**
  - adequate spending authorities to prioritize, initialize and implement grower-selected solutions.
  - budget is targeted for Minor Use work **and** regulatory body for evaluation and regulatory decision. (example; PMC and PMRA)
- **Professional Staff**
  - Placement of highly specialized, highly skilled & highly motivated personnel.
- **Identify and utilize partnerships expertise:**
  - Maximize public **and** non-public sector potential, achieve stakeholder buy-in
- **Tangible Results – linked to Government Strategic Outcomes**
  - Achieving realistic targets, continual re-evaluation of better ways to achieve results
- **Governance / Accountability to stakeholders, taxpayers, AND, partners**
  - Joint Management Committee (example PMC/PMRA/TB)
  - Advisory Committee, Technical Working Groups
- **Outreach activities/regular dialogue with growers**



# Pest Management Centre: Partnering for Results



## Mission:

The PMC uses scientific knowledge and expertise to improve pest management practices for the benefit of all Canadians and the environment. We respond to grower needs by providing specific pest management solutions that foster competitiveness, sustainable crop production and environmental stewardship.

The **Minor Use Pesticides Program** works with grower organizations and provinces to identify crop/pest priorities, and partners with AAFC Research Branch, the US IR-4 minor use program, registrant companies and Health Canada's PMRA to conduct field trials to develop data supporting new minor use pesticide registrations.

The **Pesticide Risk Reduction Program** works with partners in PMRA, AAFC Research Branch, Environment Canada, and grower associations to develop pesticide risk reduction strategies. Strategy adoption is facilitated through projects to develop and demonstrate reduced risk pest management tools and IPM systems.

## Crop Protection Tools, Knowledge and Support for Adoption

### Canadian Growers

Using new, reduced-risk pest management products, tools and practices to enhance competitiveness and sustainability

# PMC's Partners

	Responsibilities	Roles	Benefits
Growers	Demonstrate needs	Choose priorities	New tools
PMRA	Federal Regulator – submission review, enforcement and monitoring.	Review regulatory proposals and make decisions taking in account harmonization.	Fulfills federal mandate - Greater efficiencies.
AAFC Research Branch	Conduct research on grower-selected MU solutions to specific pest problems	Conducting of field trials, compilation of data supporting new MU submissions	Contributes to Branch science and innovation strategy
Provinces	Also conducts field trials and drafts submissions on behalf of growers.	Advocate Provincial grower needs.	Obtain new Crop Protection tools for their growers.
Registrants	R&D on new crop protection tools and technologies	Agree to label expansion and new use submissions	Market new uses of products.
IR-4 Project	Facilitates registration of sustainable pest management technology for specialty crops and minor uses.	Develop necessary data to facilitate registration of crop protection tools for specialty crop growers and work with PMC to facilitate North American registrations.	US growers get national registration and access to Canadian markets as MRL is set and equal

# PMC – PMRA – Working together for Growers

## PMC's Roles

### Provide pest management solutions for growers

- Work with stakeholders to identify key pest management issues
- Generate data and regulatory submissions for new minor uses
- Implement projects which will enhance environmental stewardship

## PMRA Roles

### Federal regulator and registrar of pesticides

- Develops, delivers and enforces federal pesticide policies and guidelines
- Evaluates pesticide registration proposals
- Promotes sustainable pest management

Working to increase Global and North American Harmonization

# The IR-4 Project

- Established in 1963 - Over 11,000 Food crop use registrations
- A true partnership between the federal government, state agricultural experimental stations, growers & commodity groups, the crop protection industry and the regulatory agencies

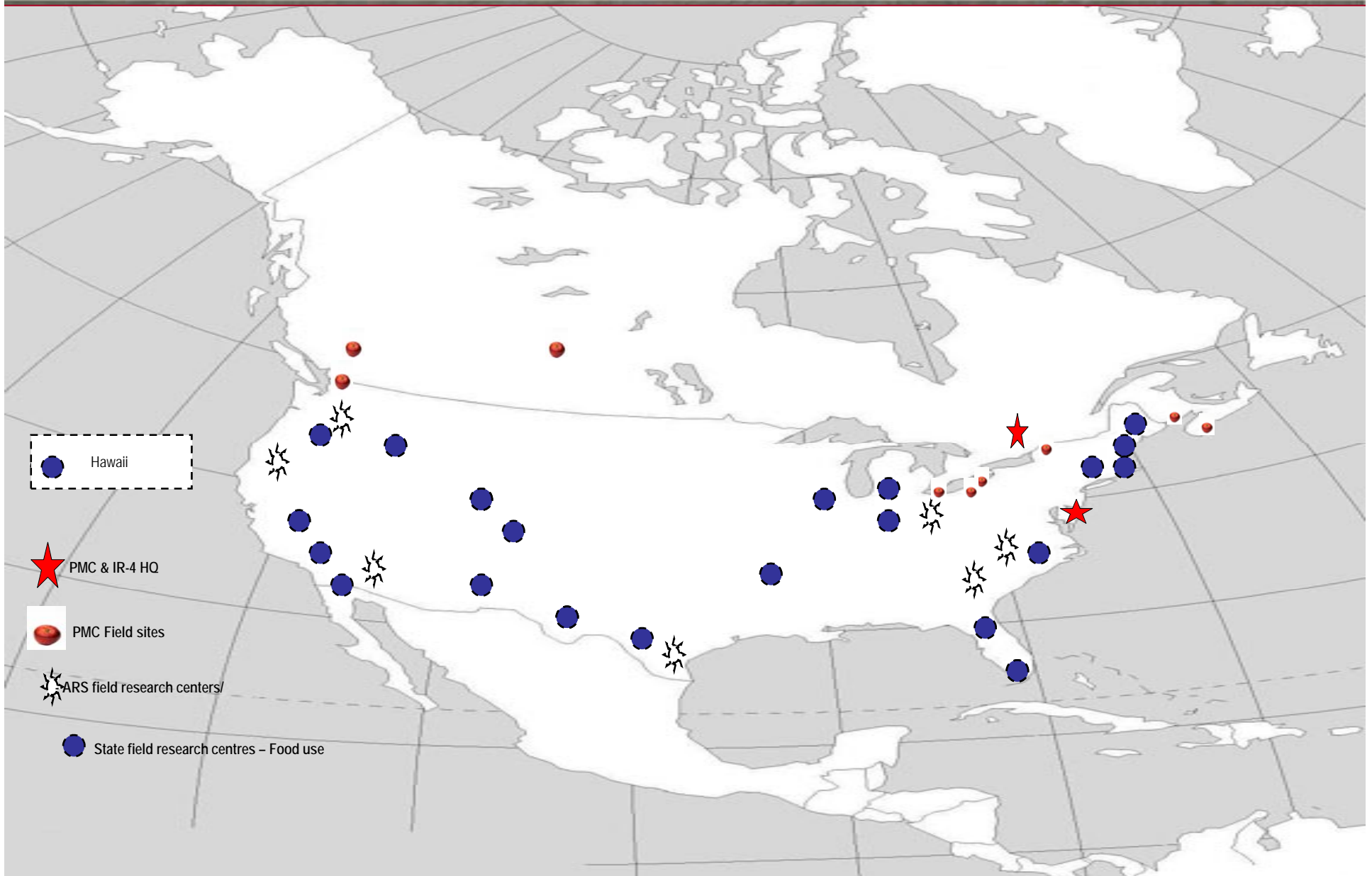
## Current objectives:

- Food Crops Program (minor use tolerances & registrations, crop grouping, and international MRL's/activities)
- Ornamental Horticulture Program
- Biopesticide and Organic Support Program (includes biotechnology)
- Public Health Pesticides

# Canada - US Partnership Model

- **PMC**
  - AAFC funded including MU Program for PMRA
  - Consultations with Prov. Minor Use Coordinators, Grower Groups and Manufacturers
  - Priority Setting Workshop (March)
  - Planning Meeting (January)
  - Field Trials at 9 GLP AAFC Research Centers and private contractors and Universities
  - Located in 4 Regions
    - Western (2)
    - Prairies (1)
    - Central (4)
    - Atlantic (2)
  - Creation of AAFC-PMC lab
- **IR-4**
  - USDA and Industry Funding
  - Consultations with Regional Field Coordinators, Grower Groups and Manufacturers
  - Food Use Workshop (September)
  - Ornamental Workshop (October)
  - Research Planning Meeting (October)
  - Field Research Centers (Land Grant Universities- 4); State Field Research Centres/Food Use – 23; USDA-ARS field research Centres -7; private contractors
  - Located in 4 Regions
    - Northeast (NY)
    - North Central (MI)
    - Western (CA)
    - Southern (FL)
  - Regional Labs and Satellite Labs

# Key PMC and IR-4 Sites



# Harmonization

- PMC works closely with the U.S.D.A. IR-4 Project to maximize harmonized pesticide tolerances for the U.S. and Canada.
- Cooperation with IR-4 through joint projects leads to significant resource savings
  - Reduction on the number of field trials conducted & lab analysis trials and shorter time frame for submission and registration by using the Joint Review stream.
  - Regulatory decisions for new uses at approximately the same time – benefiting growers on both sides of the border
  - Harmonized tolerances/Maximum Residue Limits (MRLs) helps remove trade barriers.
- Use of crop groupings which allow registration on more crops within a group.
- 65 new uses registered from the joint PMC/IR-4 projects

# PMC Average Cost per Project

	AAFC	AAFC/IR-4
Projects	18 projects	7 projects (4 IR-4 led, 3 PMC led)
Residue Trials	64	16
Cost for Field portion	\$608,000	\$152,000
Cost for Lab portion	\$468,000	PMC - \$78,000 IR-4 -\$104,000
Cost per Project	\$60,000	\$33,000



# Harmonization

- Global Harmonization
  - Participation in the Global Residue Study
  - Field grown tomatoes; four active ingredients
  - 27 locations including 2 sites in Canada (BC & ON)
  - Uniform application equipment
  - EPA analyzing all residue samples

# GLOBAL RESIDUE STUDY



22 Countries- 27 Trials

● 18 sample sets in US

● 9 to be completed

## Harmonization

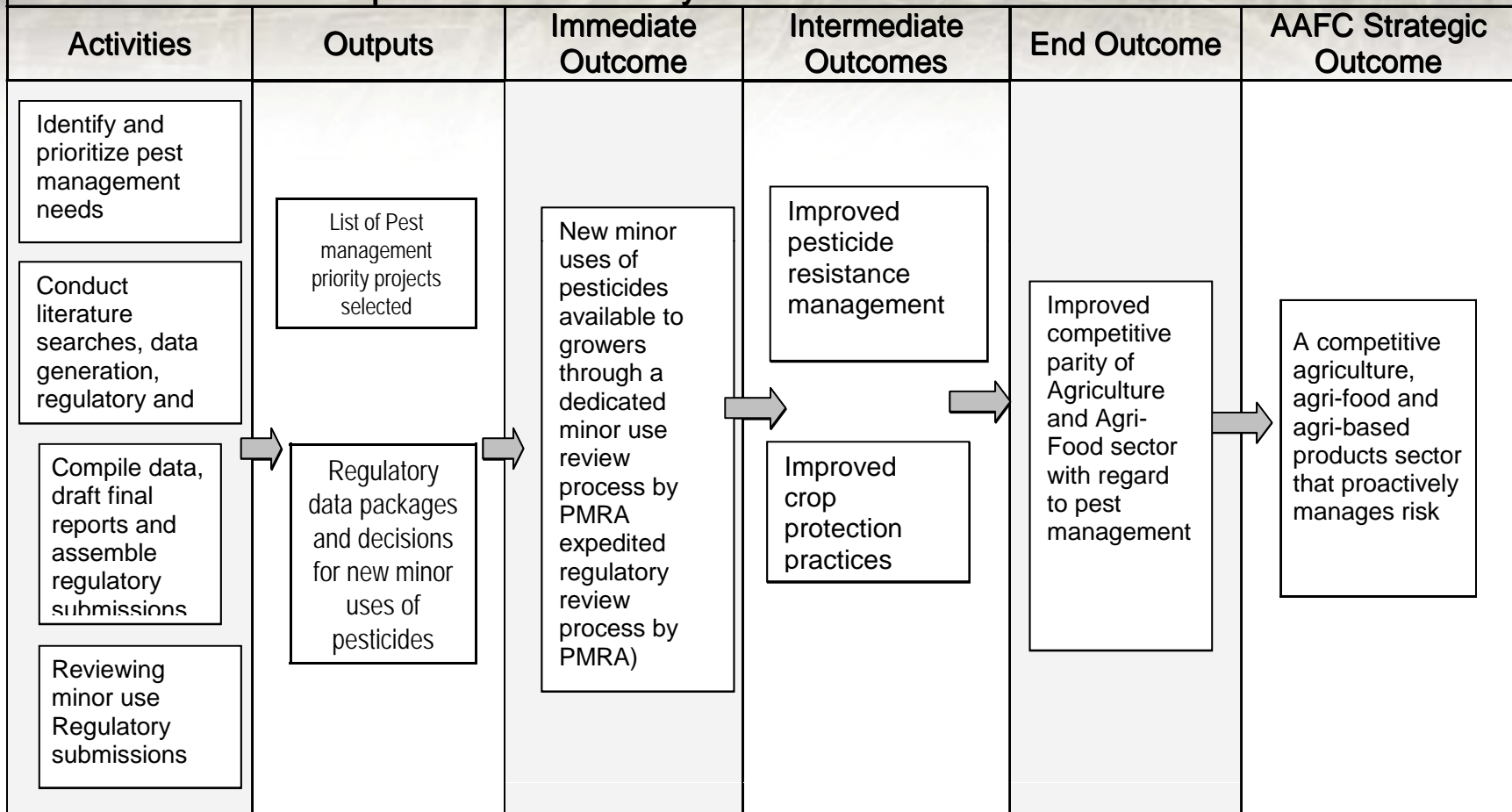
- **PMC's participation in NAFTA TWG on Pesticides**
  - Addresses trade issues, national regulatory and scientific capacity, as well as governmental review burden.
  - To date, 7 pesticide products have NAFTA labels, giving unrestricted movement across borders and at least 10 others are under review. At least 10 other products are under review.

# NAFTA Crop Group Initiative

- Objective:
  - Development and approval of new crop groups by EPA and PMRA – harmonization
  - CODEX Approval
- Bulb Vegetable group – approved
- Small Berries and Fruit – approved
- Edible Fungi – approved
- Oilseed group – to be codified 6/10
- Citrus Fruit group – to be codified 6/10
- Fruiting Vegetables – to be codified 6/10
- Pome Fruit group – to be codified 6/10
- Stone Fruit group – preliminary approval
- Tree Nut group – preliminary approval
- Tropical Fruit group – pending submission – July 2010
- Herb and Spice group – under review

# PMC Programs – Minor Use Program

**Objective:** to improve access to minor uses of pesticides and prevent trade barriers with countries where these products are already available

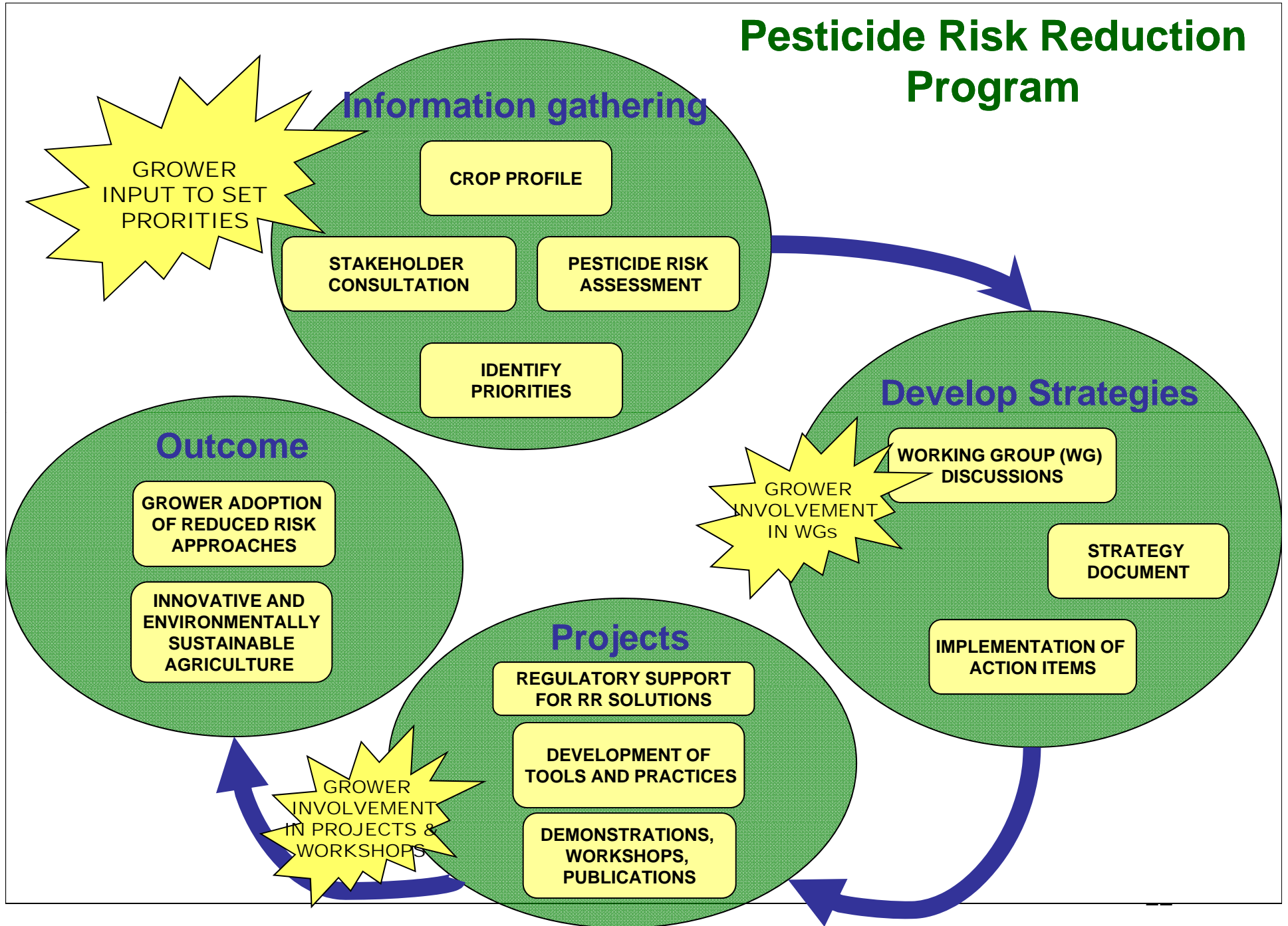


# Minor Use Program

## Accomplishments (2003-2011)

- 683 Projects (including the 44 priority projects selected for the 2011 field season)
- 275 submissions to PMRA/Registrants
- 165 registrations to date
- More than 540 new labeled uses
- Reorganized based on disciplines
- Increase Minor Use Program staff positions from 25 to 38 positions

# Pesticide Risk Reduction Program



# Risk Reduction Program

## Accomplishments (2003-2011)

- Biopesticides Initiative - 18 biopesticide product submissions to PMRA; 114 new uses registered for 13 products
- 30 Crop Profiles created, vetted and published, utilized by growers, registrants, PMRA and CFIA.
- 15 pesticide risk reduction strategies for priority issues developed or in development.
- 163 projects to develop or implement reduced risk solutions funded.
- Staff capacity: 7 positions
- First Biopesticide Priority Selection Workshop in 2010

# Governance - PMC's JMC and Advisory Groups

- **Joint Management Committee with PMRA**
  - Funding provided by AAFC to HC's Pest Management Regulatory Agency (PMRA) based on approved work plans and performance indicators related to minor uses, tech gap and global joint reviews .
- **PMC Advisory Committee**
  - Provides broad, strategic-level and independent external advice to the Executive Director of the PMC.
  - Consists of grower groups, registrants, produce marketing (importers/exporters), consumers and food product manufacturers.
- **Minor Use Pesticides and Pesticide Risk Reduction TWGs**
  - Members include representation from growers, the provinces, registrants, academia and other specialists.
- **Looks to improve regulatory process to improve efficiency**

# Communications

- Website
  - By monthly updates
  - WEB SITE:
  - WWW.AGR.GC.CA/PRRMUP
- Newsletter
  - Quarterly updates
  - Distributed through List Server and grower organizations
- List Serv
  - Each time a Minor Use project is registered / labelled
  - Each time a Risk Reduction fact sheet is completed / published or a Risk Reduction project is completed
  - PMC-CLA-L-subscribe-request@www.agr.ca

**The Pest Management Newsletter**  
News from the Agriculture and Agri-Food Canada Pest Management Centre Vol 2 No 3 winter 2010

### How's the Weather?

There was some peculiar weather across Canada during 2009, from unprecedented snowfalls in British Columbia to record-breaking cold in Quebec. Many agricultural regions never did dry out, while others sizzled and farmers hoped for rain. The unusual conditions took a toll on some growers while helping others, and Pest Management Centre (PMC) Researchers from coast to coast had a first-hand look at both extremes.

**The West Coast: The Okanagan Valley**

Spring was cold and prolonged in British Columbia's Okanagan region, which quite literally put a damper on early crop development. "The cherry bloom usually comes in April," says Karen Bedford, a PMC principal investigator at the Pacific Agri-Food Research Centre's Summerland site, "but this year it was in early May. The technician in our cherry and apple breeding program said he'd only seen this happen once in more than 20 years. So while we've had springs similar to this one, they've been very rare."

Later in the season, fortunately, the weather improved. This was especially important for the Okanagan's cherry growers, whose crop is the basis of a highly profitable export industry. One problem for these growers during the 2009 harvest was a shortage of helicopters, which were busy fighting forest fires, the machines are used to blow rainwater off the fruit, which might otherwise split. But the harvest turned out reasonably well anyway, with large crops of cherries and apples. The improved weather also allowed the Minor Use Pesticides Program (MUPP) team in Summerland to carry out their field trials as they'd planned, and they didn't see any unusual changes in the incidence of pests or diseases.

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Canada

# The Way Forward

- Be available to countries who wish to establish MU programs like in the US (IR-4) and in Canada (PMC)
- Increase number of joint projects with IR-4 and other country MU programs
- Enhance relations with Registrants to encourage partnership early in the development process of new actives for minor uses / specialty crops
- Work with other countries and standards setting bodies (EPA, PMRA, EFSA, OECD, CODEX) to establish global harmonized MRLs and to work towards acceptance of global data (eg. data generated by organizations like IR-4 and PMC)