



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada

Canada



# Agricultural Production in Canada

2014 Joint Conference NAAIC, Trifolium & Grass Breeders  
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Science and Technology Branch*

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## **Our Vision**

Driving innovation and ingenuity  
to build a world leading agricultural and food economy  
for the benefit of all Canadians.

## **Our Mission**

Agriculture and Agri-Food Canada provides leadership  
in the growth and development of a competitive, innovative  
and sustainable Canadian agriculture and agri-food sector.

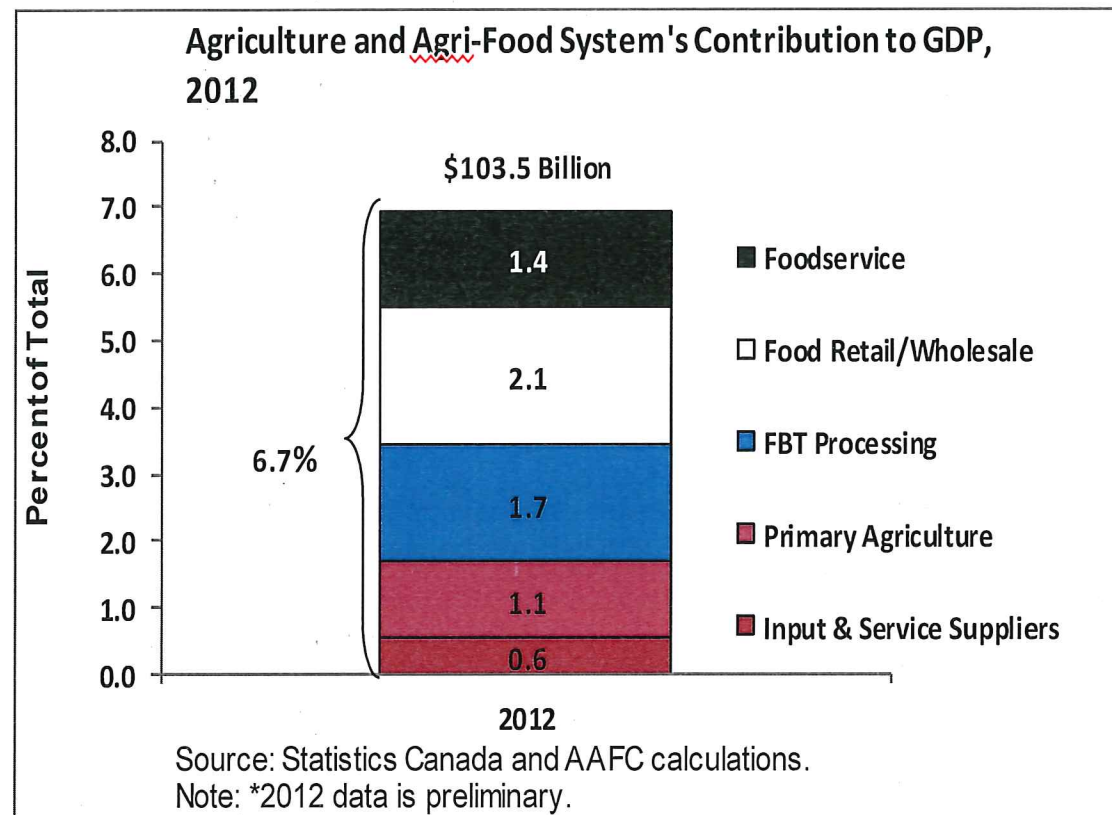


# Outline of Today's Presentation

- Present an overview of the contribution of the agriculture and agri-food sector to the Canadian and global economy.
- Highlight the strategic direction of Agriculture and Agri-Food Canada's (AAFC) Science and Technology Branch
- Discuss the potential role of science and innovation to address challenges and take advantage of the opportunities.

# Agriculture and Agri-food Contributions to the Canadian Economy

- In 2012, the Canadian agriculture and agri-food system generated \$103.5 billion in economic activity and accounted for 6.7% of total Canadian GDP.





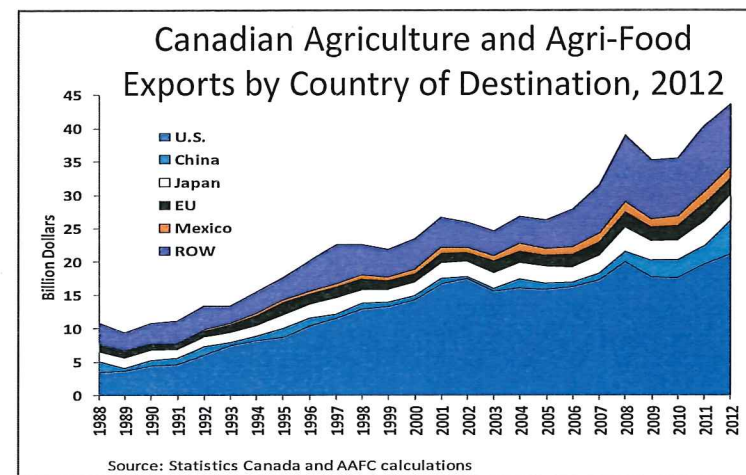
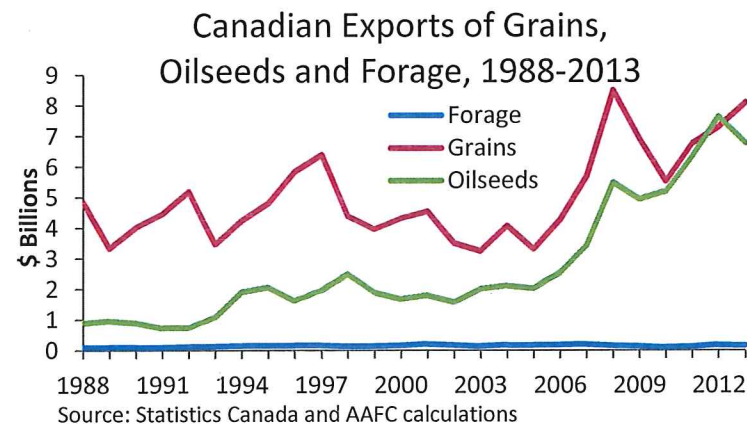
# Forage, Grass Seeds and Clover

	2011	2012	2013
<b>Total Farm Cash Receipts</b>	<b>\$49,634,044</b>	<b>\$54,144,422</b>	<b>\$54,744,422</b>
<b>Total Crops</b>	<b>\$25,827,372</b>	<b>\$29,836,515</b>	<b>\$30,518,484</b>
<b>Forage and Grass Seed</b>	<b>\$79,695</b>	<b>\$90,935</b>	<b>\$84,536</b>
% Against Total Crops	.31%	.30%	.28%
<b>Hay and Clover</b>	<b>\$290,621</b>	<b>\$320,635</b>	<b>\$361,446</b>
% Against Total Crops	1.13%	1.07%	1.18%
<b>Total Forage, Grass Seed, Hay &amp; Clover</b>	<b>\$370,316</b>	<b>\$411,570</b>	<b>\$445,982</b>
% Against Total Crops	1.43%	1.38%	1.46%



# The Sector has Successfully Responded to Increased Global Demands

- Canadian exports of primary agriculture products increased in value by 10.3% in 2012 to \$21.9 billion, surpassing the previous peak of \$21.1 billion in 2008.
- In 2012, Canadian exports of processed products increased in value by 6.0% compare to previous year to reach \$21.7 billion.
- The U.S. is Canada's primary export destination for primary agriculture and processed food and beverage products, accounting for 48% of total Canadian exports in 2011.



# Economic Importance of Forages

Forages are the largest crop in Canada by area, providing \$5 billion to the Canadian economy in direct economic benefits.

<b>Producer</b>	<b>Net farm income</b>
Wheat growers	\$ 5.2 B
Canola producers	\$ 7.3 B
Forages	\$ 5.09 B



*Statistics Canada 2011 data.*



# Forage Exports



The forage industry also serves as the underpinning of the dairy and beef sectors that generate over \$11 billion in income at the farm level and \$50 billion of economic activity in the Canadian economy.

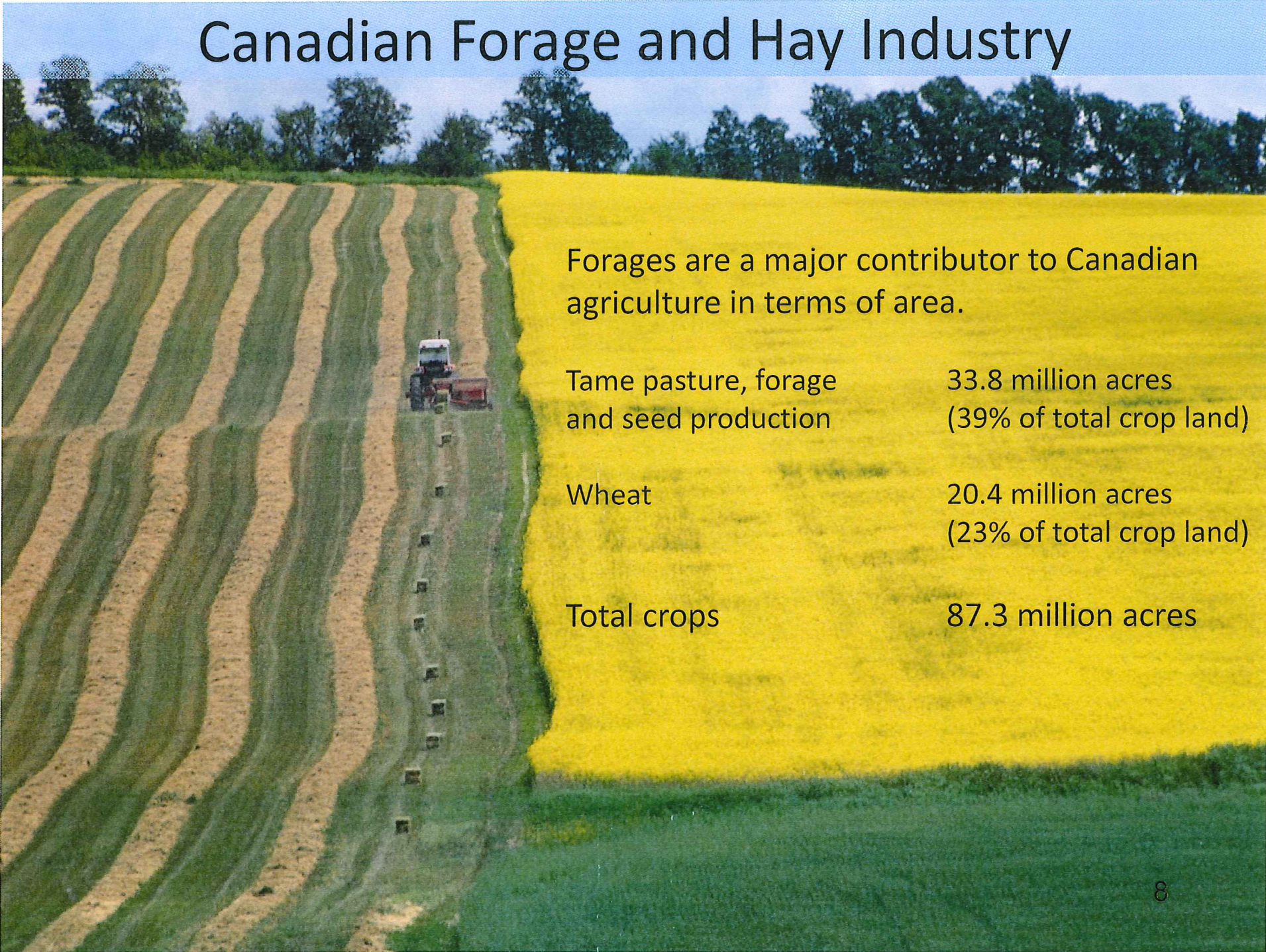
The most recent forage export values, for the year ending June 2013, are:

\$168 million for all forage exports, includes:

- \$87 million for compressed timothy
- \$32 million for dehydrated alfalfa products
- \$34 million for alfalfa bales



# Canadian Forage and Hay Industry

An aerial photograph of a Canadian agricultural landscape. On the left, a green field is being worked by a tractor, with distinct curved tracks visible in the soil. To the right, a large, vibrant yellow field, likely rapeseed, stretches towards the horizon. A line of trees is visible in the background under a clear sky.

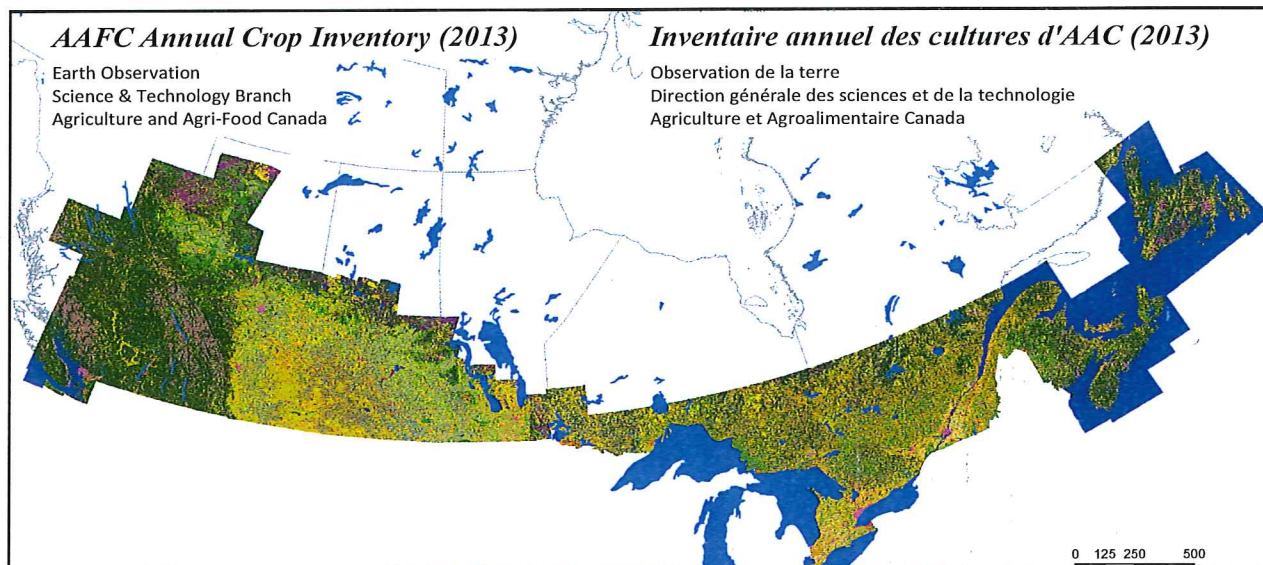
Forages are a major contributor to Canadian agriculture in terms of area.

Tame pasture, forage and seed production	33.8 million acres (39% of total crop land)
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Wheat	20.4 million acres (23% of total crop land)
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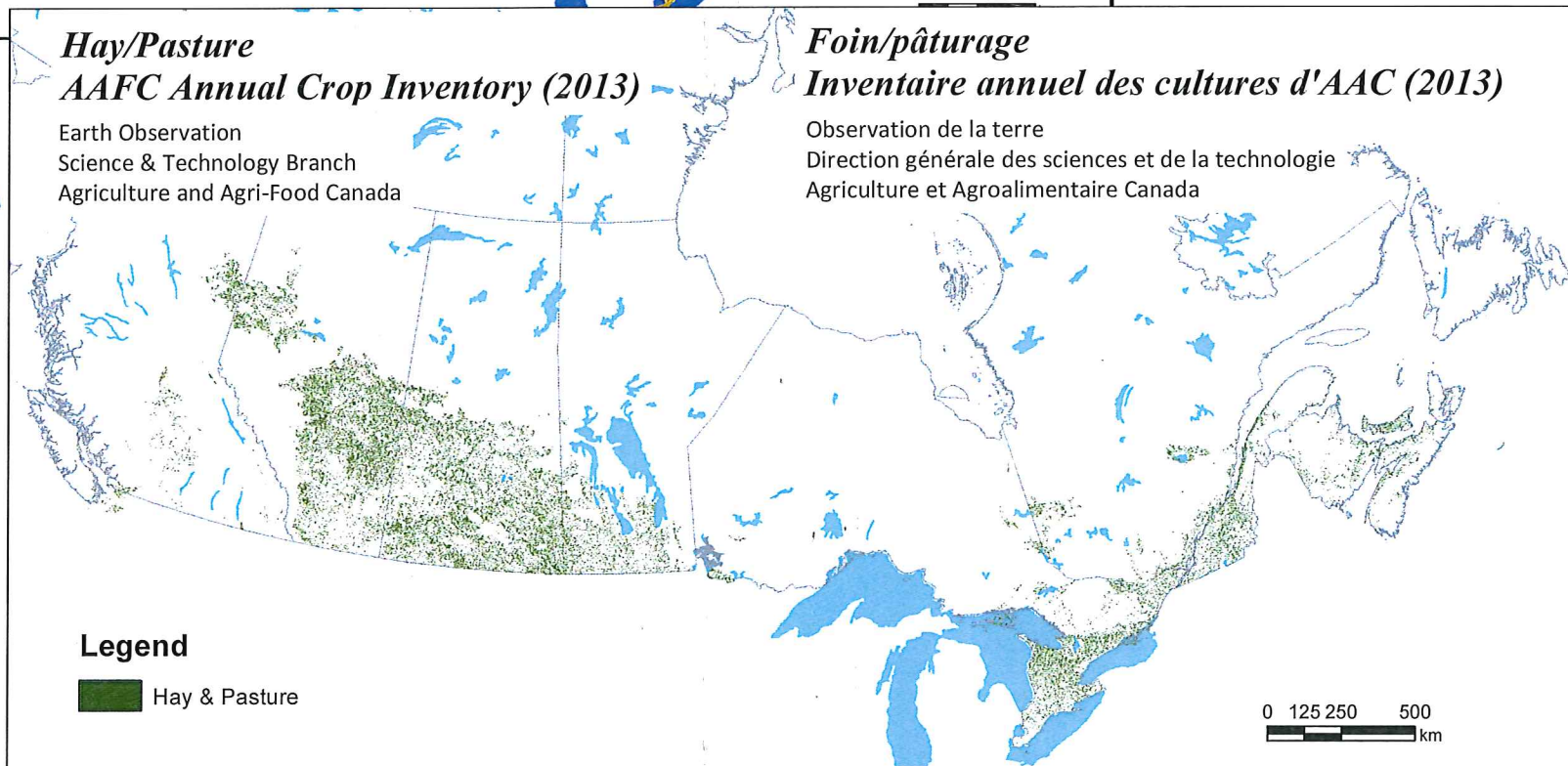
Total crops	87.3 million acres
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**Legend/Légende**

- |   |                                 |
|---|---------------------------------|
| 20_Water/Eau  | 133_Barley/Orge (SK/AB)         |
| 30_Exposed Land/Sols nus  | 135_Millet/Millet (SK/AB)       |
| 34_Developed/Zones développées                                  | 136_Oats/Avoine (SK/AB)         |
| 50_Shrubland/Arbustes   | 137_Rye/Seigle (SK/AB)          |
| 80_Wetland/Terres humides                                       | 139_Triticale/Triticale (SK/AB) |
| 110_Grassland/Prairies  | 140_Wheat/Blé (SK/AB)           |
| 122_Persistent Crops and Pasture/Cultures pérennes et pâturages | 147_Corn/Mais                   |
| 130_Too Wet to be Seeded/Trop humide pour les sems              | 150_Oilseeds/Oléagineux         |
| 131_Fallow/Jachère  | 151_Borage/Bourrache (SK)       |
| 132_Cereals/Céréales  | 152_Canola/Cameline (SK)        |



**Legend**

-  Hay & Pasture

# Agriculture and AgriFood Canada

- Agriculture and Agri-Food Canada (AAFC) is the biggest single player in agricultural research in this country.
- We have a network of research centres and partnerships that allow us to respond to the sector's needs and we link to industry's priorities for market-driven research.

## *AAFC Mission*

*AAFC provides leadership in the growth and development of a competitive, innovative and sustainable Canadian agriculture and agri-food sector.*



# Partnerships

- AAFC works with and invests in partners who are better placed to fill other needs along the innovation continuum:
  - universities, that specialize in training and developing scientists and doing foundational research;
  - industry groups that can mobilize large-scale collaborations and define priorities for their sectors; and
  - individual businesses that can deliver innovations to the marketplace.



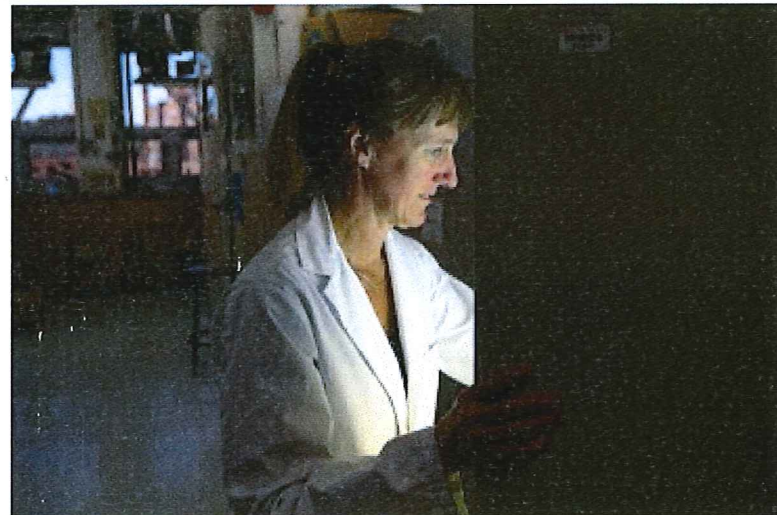
# AAFC Research and Innovation

- We are adjusting the way we support innovation in the sector so that work is coordinated and concentrated on priorities, duplication is eliminated and each partner focuses on what they do best.
- AAFC supports the sector with branches specialized in: Market and Industry Services, Programs, Strategic Policy and the Science and Technology Branch.



# AAFC's Science and Technology Branch

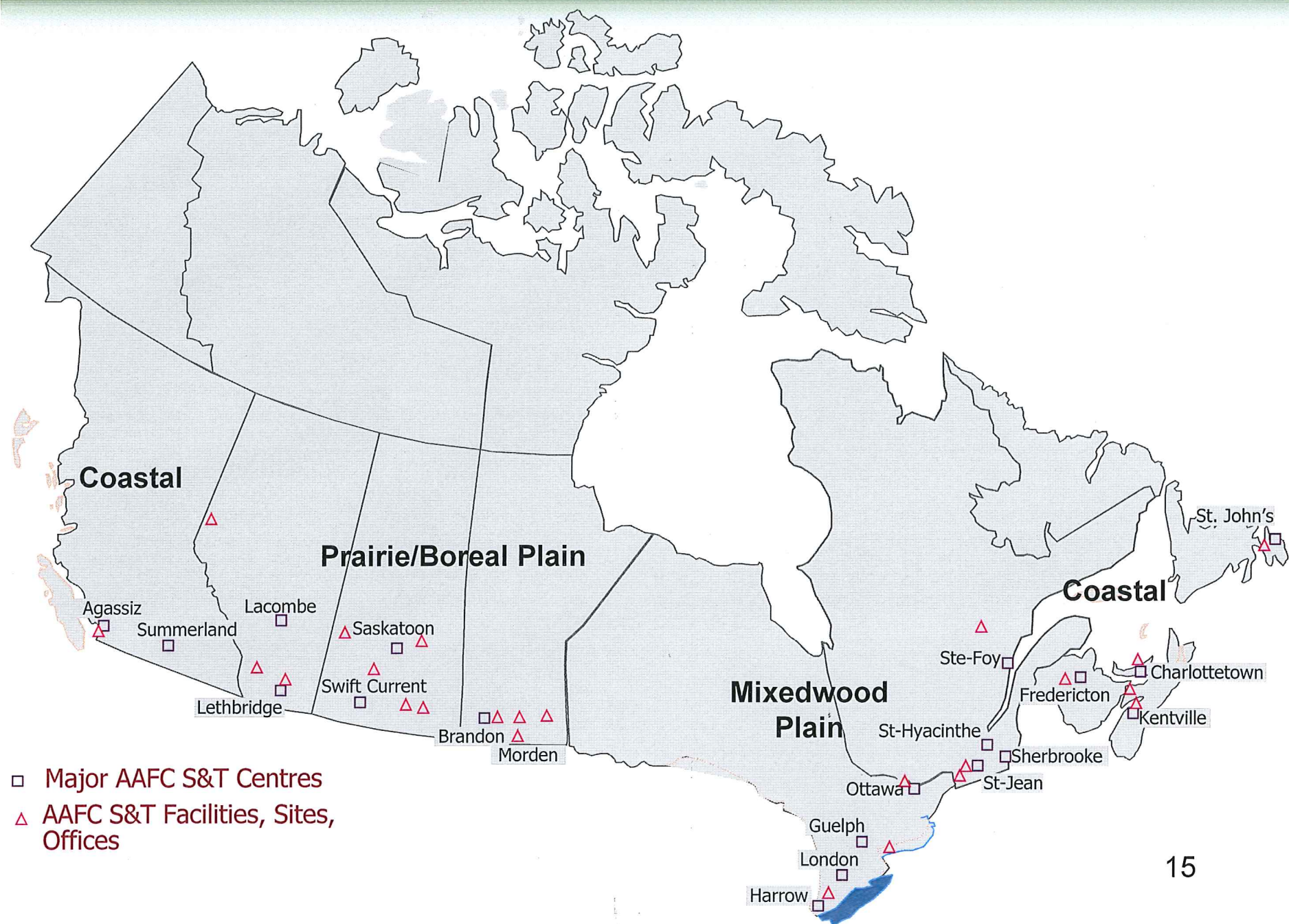
- The Science and Technology Branch ensures:
  - national priorities are tailored to regional needs;
  - complementary partnerships develop with industry;
  - better integration of agronomic and environmental expertise; and
  - a more coordinated interface with industry and other groups.





# Science and Technology Branch Structure

- The organizational structure is **aligned with agriculture ecosystems**, with senior officials in the regions tailoring delivery of national research, development and technology transfer to regional needs:
  - Coastal
  - Prairie/Boreal Plain
  - Mixedwood Plains
- Our science and technology transfer capacity is distributed across the country in a coordinated network of research centres, their farms and labs, and outreach offices.





## Strategic Focus Areas

- High-level direction is elaborated through a series of AAFC sector strategies. Each strategy frames its specific areas of focus within cross-cutting strategic objectives.
- PEAT: PEAT: increase agricultural **productivity**, enhance **environmental** performance, improve **attributes** for food and non-food uses, address **threats** to the value chain.
- Nine Sector Strategies :
  - Forages and Beef; Cereals and Pulses; Oilseeds; Horticulture; Dairy, Swine and Poultry and other Livestock; AgriFood; Bioproducts, and cross cutting themes: Agro-Ecosystem Productivity and Health; and Biodiversity and Bioresource



# Pest Management Centre

- AAFC's Pest Management Centre (PMC) meets growers' needs for minor use pesticides and approaches that reduce the risks caused by pesticide use through:
  - **Minor Use Pesticide program** has partnered with the provinces, pesticide manufacturers, and growers to deliver more than 1100 new minor use registrations.
  - **Pesticide Risk Reduction Program** improves the access of growers to low-risk, environmentally and economically sustainable pest control tools and practices.



## Growing Forward 2

- Growing Forward (GF2) provides a mechanism to deliver on the following priorities:
  - Innovation
  - Competitiveness
  - Market Development
- Total funding available for the AgrilInnovation Program is \$698 million over 5 years (2013-18)
- \$68.5 million has been approved under the Canadian Agri-Science Clusters.



# AAFC Industry Projects in Forages

- **Beef Cluster:** This \$14M AAFC investment into the beef cluster contains a strong focus on forage-related research, and can be credited with raising the profile and importance of forage research.
- **Dairy Cluster:** This AAFC \$12M investment includes \$325K “Towards the eco-efficient management of forage crops and manure” project.
- **Agri-Science Project:** The Peace Region Forage Seed Association is collaborating with AAFC scientists on “Improving the Productivity, Sustainability and Quality of Forage Seed” with AAFC providing \$925K in funding.

# Looking Ahead

- Recognize the need for ongoing engagement to establish and adjust science and technology activities in relation to government and industry priorities
- Open to new partnership models that contribute to sector prosperity





# Canada