



AAFC MISSION CRITICAL AREAS FOR RESEARCH



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Canada



AAFC identified three strategic outcome priorities to guide the alignment of departmental efforts...

■ **Security of the Food System**

Making Canada the world leader in producing, processing and distributing safe and reliable food to meet the needs and preferences of consumers

■ **Health of the Environment**

Making Canada the world leader in using environmental resources in a manner that ensures their quality and availability for present and future generations

■ **Innovation for Growth**

Making Canada the world leader in innovation to develop food and other agricultural related products and services that capture opportunities in diversified domestic and global markets



... and identified key elements within each of these strategic outcomes for focused attention

■ **Security of the Food System**


- Risk management
- Secure market access
- Consumer confidence in food safety and quality

■ **Health of the Environment**

- Awareness of environmental issues and options
- Stewardship through improved management practices

■ **Innovation for Growth**

- Discovery science
- Skills development and continuous learning
- Market development



AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

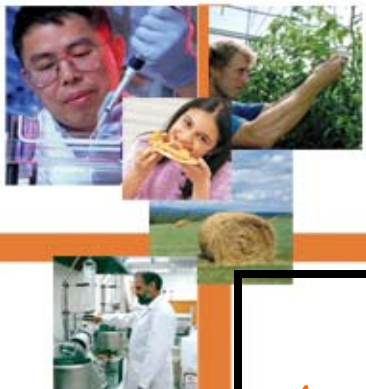


1. Bio-resources

- The objective is to enhance the ability of the agriculture and agri-food sector and government to respond quickly and effectively to:
 - biosecurity,
 - environmental, and
 - health and food safety risks
 - as well as economic opportunities

through bioresource information systems and authoritative knowledge of bioresources.

- Biosystematics and Bioinformatics are key elements of enhancing the capacity to analyze and understand the potential of the bioresources in Canada.

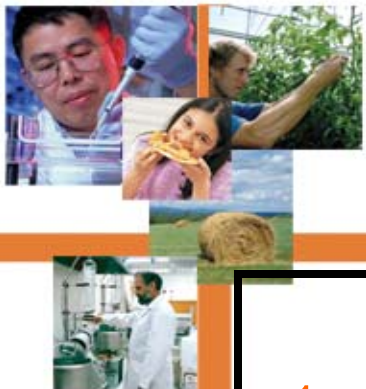
A collage of five small images: a man in a lab coat, a woman holding a piece of food, a person in a field, a close-up of a plant, and a person in a lab coat working with equipment.

AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

1. Bio-resources

2. Crop production and health


- The objective is to prevent catastrophic losses in agriculture from weeds, diseases, pests and climate change through the development of risk management strategies including:
 - enhanced germplasm,
 - beneficial management practices
 - and integrated pest management

A collage of five small images: a man in a lab coat, a woman holding a piece of food, a person in a field, a close-up of a plant, and a person in a lab coat.

AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

1. Bio-resources
2. Crop production and health
- 3. Animal production and health**

- The objective is to enhance livestock health and welfare through innovative
 - nutrition,
 - stress management and
 - disease control strategies for livestock production



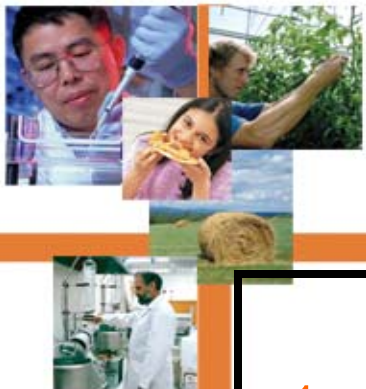
AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

1. Bio-resources
2. Crop production and health
3. Animal production and health
4. **Environmentally sound crop production**

- The objective is to advance Canada's environmental agenda and the environmental performance of the Canadian agriculture and agri-food sector in

- Soil quality
- Water quality
- Air quality
- Biodiversity

through innovative crop production strategies and systems


A collage of images related to agriculture and research, including a man in a lab coat, a woman eating a pizza, a person working in a field, a close-up of a plant, and a person in a lab setting.

AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

1. Bio-resources
2. Crop production and health
3. Animal production and health
4. Environmentally sound crop production
- 5. Environmentally sound animal production**

- The objective is to advance Canada's environmental agenda and the environmental performance of the Canadian agriculture and agri-food sector in
 - Soil quality
 - Water quality
 - Air quality
 - Biodiversity

through innovative animal production strategies and systems

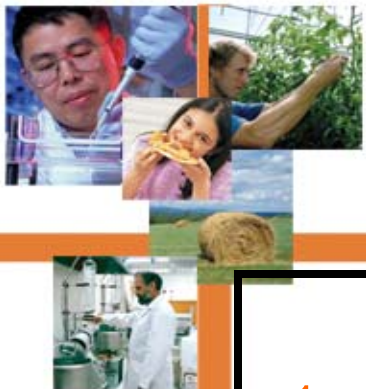


AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

1. Bio-resources
2. Crop production and health
3. Animal production and health
4. Environmentally sound crop production
5. Environmentally sound animal production
6. **Food safety**

- The objective is to enhance food safety through
 - detection,
 - characterization and
 - control


of food borne hazards including toxins, pathogens, contaminants, residues and allergens



AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

1. Bio-resources
2. Crop production and health
3. Animal production and health
4. Environmentally sound crop production
5. Environmentally sound animal production
6. Food safety
7. **Food quality**

- The objective is improved human nutrition and wellness through
 - conservation of the composition
 - and functional properties of foodthroughout the value chain

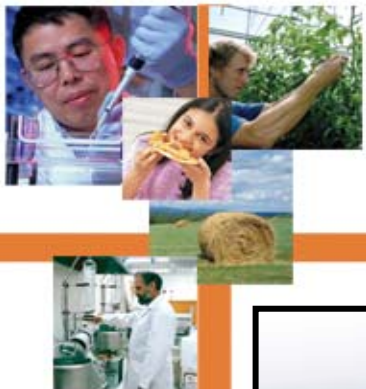


AAFC has identified eight Mission Critical Areas for departmental research to help producers and the sector overcome challenges and capture opportunities

- 
1. Bio-resources
 2. Crop production and health
 3. Animal production and health
 4. Environmentally sound crop production
 5. Environmentally sound animal production
 6. Food safety
 7. Food quality
 8. **Bio-agro processes and products**

- The objective is to capture market opportunities for the Canadian agriculture and agri-food system through
 - development of innovative uses of biomass
 - for bio-industry and food sectors and
 - through innovative production and processing systems

*Science and innovation efforts
are aligned with strategic priorities*



**BEST QUALITY OF LIFE
FOR ALL CANADIANS**



AAFC MANDATE



AAFC VISION

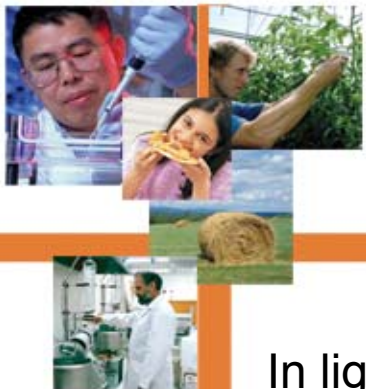


AAFC STRATEGIC OUTCOMES



AAFC MISSION CRITICAL AREAS SCIENCE AND RESEARCH

Question 3: Research Needs Exercise



In light of the drivers for change, the challenges and opportunities facing the agriculture and agri-food sector in your region, what are the priority issues and opportunities that should be addressed through **research** in each of the identified eight critical areas for AAFC research action?

Mission Critical Areas

Research Priorities

- **Research on Bioresources** ?
- **Research on Crop Production and Health** ?
- **Research on Animal Production and Health** ?
- **Research on Environmentally Sound Crop Production** ?
- **Research on Environmentally Sound Animal Production** ?
- **Research on Food Safety** ?
- **Research on Food Quality** ?
- **Research on Bio-agro Processes and Products** ?



AAFC MISSION CRITICAL AREAS FOR RESEARCH



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Canada