Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada

Science and Innovation

Greenhouse and Processing Crops Research Centre

Harrow, Ontario

The Greenhouse and Processing Crops Research Centre (GPCRC), one of Agriculture and Agri-Food Canada's (AAFC) national network of 19 research centres, is located at Harrow, Ontario. The Centre operates the largest greenhouse research complex facility in North America and manages two field sites, one on sandy soils at Harrow and a second one on clay-loam soils at the Honourable Eugene F. Whelan Experimental Farm close to Woodslee, Ontario.

The Centre conducts environmental quality research and develops sustainable land and crop management strategies. Research is focused on breeding, pest management, soil, water and air quality, and crop productivity.

Areas of Research

The GPCRC focuses on new technologies for producing greenhouse crops, including vegetables and ornamentals, and field-grown processing crops, including soybeans, edible beans, corn, winter wheat and tomatoes. The Centre conducts research on the quality and sustainable use of Ontario soils and reduction in greenhouse gas emissions and nutrient losses from agricultural soils to enhance the environmental health of farmlands.

Healthy Crops in Healthy Environments

- Conducting research on ways to improve the efficiency and marketability of crops, while maintaining soil quality and the integrity of the environment (i.e. reduced nutrient losses and greenhouse gas emissions)
- Conducting regional and national studies on conservation tillage (minimal disturbances to the soil through tillage), management of water resources, managing soil nutrients, evaluating crop rotations, cover crops and conditioners to fertilize the soil, including livestock manures and compost
- Optimizing greenhouse crop management through improved production practices, energy conservation and greenhouse environment control
- Conducting research on beans and field vegetables with special emphasis on developing and evaluating varieties for yield, quality and disease resistance
- Developing high-yielding soybeans and edible beans with special quality traits for food processing in order to increase both domestic consumption and marketability to Europe and Pacific Rim countries

Canada

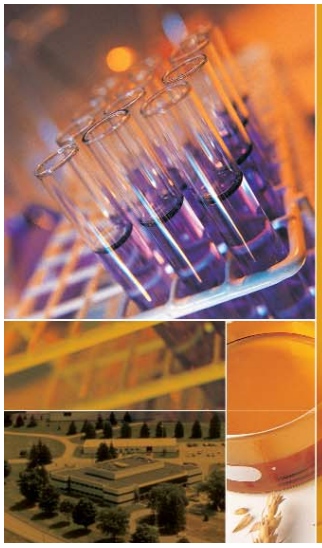
Protecting and Preserving Greenhouse and Field Crops

- Discovering best management practices for greenhouse and field crops to control insect and mite pests, plant diseases, weeds and invasive pests
- Conducting research on alternative methods to control insects including physical, cultural and biological strategies
- Participating in AAFC's Minor Use Pesticide Program for greenhouse crops and field crops in Canadian Climatic Zone 5 with the goal of finding new reduced risk pest management technologies
- Preserving the genetic diversity of Canadian fruit crops by acquiring and maintaining wild plant material and named cultivated varieties in the Canadian Clonal Genebank

Facts, Figures and Facilities

- 25 research scientists and a total staff of 120
- Expertise in plant breeding, crop physiology and management, entomology, plant pathology, weed science and soil science
- 139 hectares of mainly sandy loam soil at Harrow, Ontario
- 77 hectares of Brookston clay loam soil at the Honourable Eugene F. Whelan Experimental Farm at Woodslee, Ontario
- Heritage field plots, maintained since 1959, are of international significance for examining soil and water quality and plant dynamics on clay loam soils
- Largest greenhouse research facility in North America; 0.7 hectares of state-of-the-art greenhouses
- Centre of Excellence for greenhouse and processing crops with specialized facilities
- Located in southwest Ontario in the Great Lakes Basin which is in close proximity to Canada's largest production area for greenhouse and processing crops
- One of 9 Canadian locations collaborating on the Minor Use Pesticide Program
- Site of the Canadian Clonal Genebank, a part of AAFC's Plant Gene Resources of Canada program

Contact us



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