

The Value of PLANT BREEDING

There has been a 50% increase in productivity of the major agricultural crops during the last 30 years. This hasn't happened by itself. Trained and experienced plant breeders working under dedicated conditions have made great scientific strides to improve the crops you grow.

You are the beneficiary of plant breeding. Innovation in plant breeding delivers higher yielding varieties with better agronomic traits, disease resistance, and stress tolerance to benefit your farm and bottom line.

Consider how plant breeding has **touched your farm**:

- Plant breeding **brought wheat to the west** in 1906 with the variety Marquis, paving the way for even further improved varieties.
- **Higher yields** with hybrid corn and many vegetable crops. Over the last 60 years, the efforts of North American corn breeders have been rewarded by a 400-fold increase in corn yields.
- **New cropping options** with canola. Canola didn't exist prior to 1974; it now contributes between \$1.5 and \$2 billion to Canada's ag economy.
- **Improved time management** and erosion control on-farm with herbicide tolerance.
- **New high-value markets** in Japan with specialty soybeans.
- **Global competitiveness** through better yields and high quality.

Keeping up with international efforts on plant breeding is essential to Canada's long-term role as a supplier of food, fibre, and industrial products to the world. Heavy investments in Australia, China, and America make it essential for Canada to support innovation.

Plant Breeding Affects the World

- Plant breeding made India and other Asian countries food self-sufficient, introducing wheat and rice varieties that helped feed over one billion people.
- Improved plant varieties have improved the health and well-being of people by making fruits and vegetables more available.
- Agriculture underpins the economy, providing food, feed, and fibre from which other industries grow.

Plant breeders are working on solving even more problems that **affect your farm**:

- Fusarium head blight could soon be a non-issue for wheat growers.
- Improved canola seeds with increased seed vigour could help reduce crop establishment risk and ensure more stable crops.
- Drought resistance is being developed in crops such as canola, corn, and soybeans.
- Increased markets with specialty crops developed to supply industrial products like hydraulic oils, bio-diesel, and plastics – creating biodegradable products from renewable resources.
- Value-added opportunities with crops that have increased nutritional content or healthier qualities.



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