Seed Certification in Canada

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Canadian Seed Growers’ Association (CSGA)
Canadian Pedigreed Acres 1994-2010

Thousands

Inspected Crop Kinds and Acreage in Canada 2010

Wheat 339,734
Soybeans 234,832
Barley 107,441
Canola 61,164
Peas 61,019
Alfalfa 50,866
Lentil 36,457
Ryegrass 28,102
Timothy 26,454
Flax 33,348
Corn 21,511
Fescue 14,453
Other Crops 50,020
CSGA is designated in the federal Seeds Act and Regulations as the national Association responsible for prescribing varietal purity standards and certifying all agricultural crops except potatoes. The Canadian Food Inspection Agency (CFIA) is the federal body responsible for the Seeds Act and Regulations.
What is Certified seed?

Certified seed is seed produced under stringent production requirements to ensure that quality standards, set by the CSGA, are met.

They guarantee that off-types, weeds and other crop kinds are kept to a minimum to ensure the varietal purity of the seed.

This is especially important to maintain yield, quality, disease resistance and the distinguishing characteristics of a variety.
Certified seed provides:

- High quality seed
- Seed borne disease control
- Germination assurance
- Noxious weed seed control
- Canadian and international markets with reliable access to consistently high quality seed of varieties with specific characteristics
- Domestic and international marketing of Canadian seed supported by officially recognized certification procedures and standards
The Seed Certification Process

• Crops are produced in accordance with regulations and standards set by the CSGA.

• Throughout the season, pedigreed seed crops are inspected by a third-party inspector, to assure that regulations are being met. A crop inspection report is forwarded to the CSGA office for appraisal.

• If the crop meets all certification requirements, the seed grower receives a crop certificate as proof of the pedigree of the seed crop and the field is harvested.
Wheat Certification Example

Seed production standards are specific to each crop kind and in some cases, by variety.

For example, a crop producing Certified wheat must not be grown on land which:
- in the previous year produced a non-pedigreed crop of barley, buckwheat, oat, rye, triticale or wheat, or a crop of a different variety of Wheat, or a crop of durum; or
- in the previous year, produced a non-pedigreed crop of bean, canaryseed, fababean, flax, lentil, lupin, pea, safflower, soybean or sunflower, and which followed a non-pedigreed crop of wheat or a different variety of wheat 2 years prior.

And must have a minimum isolation distance of:
- 1 meter from another inspected pedigreed crop of wheat of the same variety;
- 3 meters from a non-pedigreed crop of wheat, or another crop of barley, buckwheat, durum, oat, rye or triticale.
The Seed Certification Process (cont.)

After harvest, Certified seed is cleaned by a CFIA-registered seed establishment and tested for germination and purity by a CFIA-recognized lab to ensure that all quality assurance requirements are met. This involves three main components:

- Varietal purity
- Germination
- Other impurities
The pedigreed seed will then be labelled with an official blue Certified tag and graded with a Canada pedigreed name, if sold in Canada. The blue Certified tag is a recognized symbol of the quality standards of certification assuring dependable performance.
Seed Certification – Checks and Balances

1. Product quality control entering the seed certification process
   • Recognized Plant Breeder program – unique to Canada
   • Audited Plant Breeder Quality Management System (QMS) Program – unique to Canada

2. Controls and Procedures on the Production Process
   • Circular 6 – CSGA’s Reference Manual on Canadian Regulations and Procedures for Pedigreed Seed Crop Production.

3. Quality Management Systems for Seed Crop Certification
   • ISO Certification
4. Independent, 3rd Party Production Process Audits
   - CFIA field inspections by trained and licensed inspectors
   - CFIA variety verification seed testing audits

5. Independent, 3rd Party Certification Process Audits
   - Annual ISO audits and registration
   - Scheduled, routine ISO internal audits
6. Higher Standards at Parent Seed Generations
   • Seed Plot Grower Manual
   • 3 of 5 previous year pedigreed seed crop experience requirement
   • 3 Year Probationary Period
The Canadian Seed Institute (CSI) accredits and monitors seed testing labs, approved conditioners, bulk storage facilities and authorized importers.

The CSI is audited by the CFIA which conducts random product sampling to complement CSI’s audit program.
Seed Quality Counts

**Farmers demand it**
Producers want assurances that what they buy will perform in the field.

**A suppliers reputation profits by it**
Delivering consistent quality builds a reputation as a reliable supplier.

**Markets demand it**
Delivery depends more and more on maintaining specific end-use traits. For consistency in products, food processors want consistent quality in the grain and oilseeds they buy.
For Canada’s farmers, planting Certified seed provides:

- Clean seed
- Varietal purity
- Guaranteed quality assurance
- Substance behind their word
For Canada’s farmers, planting Certified seed provides (cont.):

• New opportunities
• Access to premium markets
• New genetics
• Traceability
What about common seed?

In contrast, farm-saved or common seed is multiplied without any officially recognized third-party inspections to confirm varietal purity or quality.

In Canada, only pedigreed seed is permitted by law to be sold by variety name.
For Plant Breeders, seed certification ensures the protection of their hard work and years of dedication. It ensures that the variety’s traits and characteristics as described by the Breeder are maintained throughout the entire seed multiplication process, all the way down to Certified seed.

### Pedigree Seed Crop Certification Classes in Canada

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<th>Select Plots</th>
<th>Foundation Crops</th>
<th>Registered Crops</th>
<th>Certified Crops</th>
<th>Origin or Source of Food &amp; Feed Grain &amp; Oilseed Commercial Crop</th>
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For Food Processors

Using grains and oilseeds grown from Certified seed offers end-users and food processors:

- Quality Assurance
- Identity Preservation
- Traceability
- Innovation
Using grains and oilseeds produced from Certified seed provides

- High quality, consistent products
- Product differentiation
- Consistency right from the start
Research and plant breeding are funded through the sales of Certified seed and have provided the ability to continue to develop more productive, higher yielding varieties with specific characteristics required by food processors and end-users. It has also helped meet consumer demand for improved nutrition, appearance and processing characteristics.
Identity preserved agricultural production means that the unique traits or quality characteristics of a variety are maintained from when the crop is seeded through to when the crop is transported, handled, processed and shipped. A trait can be anything that the buyer requires. For example, high colour in durum used to make pasta or a specific barley variety for the Japanese malt and brewing industry.
IP systems that begin with Certified seed provide detailed traceability on the crop and the seed planted to produce that crop. In situations where a specific ingredient is required to deliver specific nutritional requirements, Certified seed ensures those requirements are met.
The Canadian Seed Industry – Pedigreed Seed Crops

• 1.2 million acres of pedigreed seed crops are produced annually.

• 2,300 varieties of 50 different crop kinds are pedigreed in Canada every year.

• Canadian seed valued at over $250 million is exported each year to approximately 70 countries.
Questions or comments?

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For more information, visit:
www.seedgrowers.ca