

Winter 2025 Standards Pre-Consultation

Mechanical Purity in Cereal Seed Crops

Current status: Open

This consultation period opened on January 7, 2025, and will close at 5 p.m. ET on March 4, 2025.

About the consultation

Focus of Consultation:

- Section 2, Cereal Seed Crops, of the [Canadian Regulations and Procedures for Pedigreed Seed Crop Production](#) (Circular 6)
- Maximum impurity standards for mechanical purity, i.e., the presence of plants of one cereal in the seed crop of another (different) cereal, e.g., barley plants in a wheat seed crop
- Species considered difficult to separate from one another.

This consultation's purpose is to obtain feedback from stakeholders on a review of the maximum impurity standards for the presence of other crop kinds in cereal seed crops (one cereal in another) for **Foundation**, **Registered**, and **Certified** status. The review relates to the presence of plants of other crop kinds within the inspected crop as reported during seed crop inspection.

Issue

CSGA is reviewing the maximum impurity standards for cereal seed crops. For certification of **the crop**, it must meet CSGA's maximum impurity standards for other crop kinds. The harvested seed must meet the mechanical purity standards in Schedule I of the *Seeds Regulations* for final certification. Some argue that, in many cases, the seed standard can be met even if plants of another crop kind were present in the field (i.e., seeds of the other crop kind can be cleaned out).

The crux of the issue is that if a seed crop is not certified due to mechanical purity at the time of inspection, it prevents final certification of the seed even if the seed processor has been able to remove enough seeds of the other kind to meet the seed standard, resulting in a financial loss to seed growers and companies.

Background

The current certification requirements for Foundation, Registered and Certified cereal seed crop production include a maximum impurity standard for other crop kinds (i.e., other cereals) where the seeds of the other kinds are considered "difficult-to-separate" (DTS) from one another during seed conditioning. The in-crop maximum impurity standard relates to the number of plants that may be present in the field, as observed during seed crop inspection. The seed standards, set out in the *Seeds Regulations* and summarized in the Grade Tables, relate to the average number of seeds per unit weight (1 kg in the case of cereals) of other crops present in the cleaned seed lot.

The *Seeds Regulations* require CSGA certification of the "crop" for the "seed" from that crop to be eligible for final certification. A seed crop certificate from CSGA confers "pedigreed status" to the seed harvested from a specific field (or fields) and is the first step in certifying a seed lot. Grading the seed based on the

presence of seeds of other crop kinds and other factors is an additional, separate step for which CSGA is not responsible.

Considerations

Many seed conditioners in Canada now use modern, sophisticated, and effective seed-cleaning equipment and technologies that improve the ability to remove one cereal from another during conditioning compared to older methods.

Cereal seed crops containing other cereals may be denied pedigreed status or demoted to a lower class, even if they meet varietal purity standards and could be cleaned to meet grade requirements. This can result in significant costs to seed growers and companies. CSGA's in-field mechanical purity standards may inadvertently discourage the production of pedigreed seed.

International harmonization is another important factor to consider. The Association of Official Seed Certifying Agency's (AOSCA) Seed Certification Handbook includes specifications for "inseparable other crops" and "shall include crop plants, the seed of which cannot be thoroughly removed by the usual methods of conditioning." However, member agencies are not bound by the mechanical purity standards, and it is up to each agency to determine which crop kinds are considered "inseparable." The only specific examples of difficult-to-separate seeds cited in the AOSCA requirements are rye in winter wheat and barley in oats.

The Organisation for Economic Cooperation and Development (OECD) Seed Schemes have field standards for plants with seeds that are "difficult to distinguish in a laboratory test from the seed of the crop." However, each participating country determines which species are difficult to distinguish. In Canada, cereal seeds of other crop kinds are not considered difficult to distinguish.

CSGA's in-crop standards are crop kind specific, with each cereal having a specific number of plants that may be present for each of the other cereals. The standards are not cumulative (i.e., there is a specific number of impurities permitted for each crop kind, and they are not added together). In other words, as soon as there is one more plant than permitted of any one crop kind, the standard has not been met even if there were fewer plants of other crop kinds than would be permitted.

Under the current standards, using a wheat seed crop for Certified status as an example, the wheat crop could include four (4) barley plants, five (5) durum, eight (8) oat, three (3) rye and five (5) triticale for a total of 25 other cereals plants in 10,000 plants of the inspected crop. However, in practice, cereal seed crops rarely contain more than one or two other kinds.

Where the other kind is considered DTS, a two-meter isolation is also required between the adjacent crop and the inspected crop so that the other crop kind is not accidentally harvested with the seed crop. Potential revisions could address concerns that these crop kinds do not require isolation from other crop kinds, especially when the other kind is permitted within the seed crop. Also, seeds from plants of other crop kinds found during inspection can potentially be removed during seed processing. However, some crop kinds may remain truly difficult to separate from one another, such as barley in oat seed, where CSGA should maintain a standard.

Progress To Date – What We Heard So Far

This issue was presented to CSGA’s Cereal Working Group (CWG) in spring 2022 and fall 2024, where there was strong support for a simplified standard for all other crop types and some relaxation of the existing standard. However, certain crop kinds, such as barley in oats, may still need a specific and possibly strict standard. CSGA’s Regulatory Services Committee reviewed and supported the recommendation to seek stakeholder feedback on a range of options.

We invite you to read more about [CSGA’s standard development process](#) and our [Standards Development Policy framework](#).

Potential Options

1. Status quo, i.e., no change in CSGA’s mechanical purity standards for cereals
2. Move towards a single standard for all other cereals combined **but still maintain** certain specific standards (such as barley in oats) where necessary.

Below are **examples**. Actual numbers would need to be determined.

- a. Example A - Foundation & Registered = 10/10,000 or 0.1%, Certified = 20/10,000 or 0.2% (i.e., like the current mechanical purity standards if they were cumulative) **PLUS** individual standards as required (e.g., barley in oats)
 - b. Example B - Foundation = 5/10,000 or 0.05%, Registered = 15/10,000 or 0.15%, Certified = 40/10,000 or 0.40% (i.e., 5 x the current varietal purity standard) **PLUS** individual standards as required (e.g., barley in oats)
3. **Only maintain** mechanical purity standards where necessary for those crop kinds that are truly difficult to separate today (e.g., barley in oats)

In other words, **Option #1** maintains specific standards for each cereal in every other (different) cereal. **Option #2** is a single standard for all other (different) cereals combined while at the same time having a specific standard for certain other (different) cereals. **Option #3** establishes standards for certain cereals in certain other (different) cereals (e.g., barley in oats).

Current Maximum Impurity Standards for Cereals

Inspected Crop	Impurity in Crop												Impurities	
	Barley		Durum		Oats		Rye		Triticale		Wheat		Current totals	
	F&R	C	F&R	C	F&R	C	F&R	C	F&R	C	F&R	C	F&R	C
Barley	n/a	n/a	1	2	2	4	1	3	2	4	2	8	8	21
Durum	1	2	n/a	n/a	4	8	1	3	1	5	1	5	8	23
Oats	1	2	2	4	n/a	n/a	1	3	4	8	4	8	12	25
Rye	2	4	2	4	2	4	n/a	n/a	2	4	2	4	10	20
Triticale	2	4	1	5	4	8	1	3	n/a	n/a	1	5	9	25
Wheat	2	4	1	5	4	8	1	3	1	5	n/a	n/a	9	25

F = Foundation, R = Registered, C = Certified

Who is the focus of this pre-consultation?

This consultation will be of interest to those involved in the seed sector value chain, including but not limited to:

- Seed growers
- Crop certificate assignees and seed companies contracting pedigreed seed production
- registered seed establishments (RSEs) that process pedigreed cereal seed
- Plant breeders
- Seed analysts
- Authorized seed crop inspection services (ASCIS) and licensed seed crop inspectors (LSCI)
- Agriculture organizations, including councils, associations, and commissions with an interest in cereal crops

We also welcome comments and feedback from the broader Canadian agriculture sector, including the grain industry, government, or other organizations or individuals.

How to Participate

Stakeholders are encouraged to complete a [short 5-10 minute survey](#) to provide feedback on the options described above. Written comments can also be emailed to both [Mike Scheffel](#) and [Gail Harris](#) with “Mechanical purity in cereals consultation” as the subject line. The survey is open until **5 pm ET, March 4, 2025**.

Pre-Consultation Activities

CSGA will inform stakeholders about the consultation through this webpage and a series of announcements in the [Seed Scoop](#) newsletter, providing opportunities for feedback. Direct emails will be sent to key consultation stakeholders. Upon request, CSGA staff will meet one-on-one with seed companies that contract pedigreed seed production. If there is sufficient interest, CSGA will host a webinar for interested parties.

Next steps

CSGA will review the survey results and written comments received and provide a report to the CWG in late March 2025. If stakeholders support potential revisions to the standards, the CWG will formulate a proposal for consideration by the Regulatory Services Committee (RSC) in early spring 2025. The RSC reviews the proposed changes and makes recommendations to the Board of Directors for approval prior to implementation.

Related Information

- [Canadian Regulations and Procedures for Pedigreed Seed Crop Production](#)
- [Schedule I](#) (Grade Tables) to the [Seeds Regulations](#)
- Canadian Food Inspection Agency (CFIA) Seed Program Documents
 - [Specific work instructions \(SWI 142.1.1\): Pedigreed seed crop inspection](#)
 - [Appendix VI Other crop kinds to report in counts](#)
 - [Specific work instructions \(SWI 142.1.2-2\): Cereals and minor grains seed crop inspection procedures](#)

Contact Us

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