

VARIETAL PURITY

A CORNERSTONE OF CANADA'S MALTING BARLEY VALUE PROPOSITION



Canada is recognized as a premium producer and supplier of barley and malt to the global malting and brewing industries.



Varietal purity is a cornerstone of premium malting barley.



Producers have an important role in ensuring varietal purity in Canadian malting barley.

CANADA'S QUALITY BRAND

Canada's reputation for quality malting and malted barley is our brand. It is based on our world-class malting barley varieties, safe and efficient production methods, and robust quality assurance systems.

The malting barley varieties developed and registered for production in Canada have excellent quality as well as superb malting and brewing performance characteristics. They are recognized around the world as value-added products.

One of the cornerstones of Canada's premium value proposition is our ability to produce, source and deliver malting barley with high-levels of varietal purity (e.g. >95%) to both domestic and international malt processors.

IMPORTANCE OF VARIETAL PURITY TO MALTSTERS

Varietal purity is important to producing high-quality malt.

Each malting barley variety has different barley quality and malting performance characteristics e.g. different size kernels, varied rates of water absorption and processing times during malting. As a result, maltsters require malting barley with a high percentage of varietal purity to make a consistent, high-quality finished product.

Malting and grain companies buying malting barley **require a minimum 95% varietal purity specification** on malting barley deliveries. Most malting barley buyers in international markets include a minimum 95% varietal purity specification in their contracts.

The ability of Canada's malting barley supply chain to assure a high level of varietal purity to end-users is critical to Canada's premium value proposition.



IMPACT OF INSUFFICIENT VARIETAL PURITY ON PRODUCERS

Grain and malting companies are increasingly using genetic testing to confirm varietal purity in samples delivered by producers.

Samples of malting barley that are found to have less than the minimum 95% varietal purity are likely to be discounted, eroding malting premiums over feed, or may be rejected for malt. This can lead to strained relationships between producer and malting barley purchasers.

Lack of varietal purity risks eroding the Canada brand for high-quality malt barley, resulting in reduced market value, sale price, and demand.

MAINTAINING VARIETAL PURITY ON THE FARM

Producers can take steps to ensure the malting barley they are growing meets varietal purity thresholds required by the industry.

Using certified seed is one of the best ways to ensure varietal purity. Canada's pedigreed seed system has a rigorous system of protocols and checks to maintain varietal integrity.

Malting or grain companies contracting barley with growers may require that barley to be grown from certified seed, or only one production cycle past certified seed. Look for the *Blue Tag* when you are buying certified seed. Pedigreed seed growers can be found through provincial seed guides, at seed company websites or using online tools like [Seed Locator](#). Inquire about varietal purity when purchasing seed. Avoid the use of common seed for malting barley production.

CANADA'S PEDIGREED SEED SYSTEM

- Canada's pedigreed seed system helps ensure varietal purity through a rigorous system of checks in relation to planting and production, storage and transportation.
- In addition, the pedigreed seed system that supports the production of certified seed includes field inspections by trained experts to identify and eliminate potential issues with varietal purity. Some seed growers are already using additional tools such as varietal identification using new technologies such as DNA, protein analysis or other varietal recognition techniques.
- Canada's seed companies and seed growers work hard to protect varietal integrity through the strict employment of these protocols. Canada's Seeds Act prohibits the sale of seed by variety name by anyone other than a pedigreed seed grower because the certified seed *Blue Tag* is the only way to ensure variety purity. For more details on certified seed and the *Blue Tag*: [What is Canadian Certified Seed?](#)
- Additional limitations on the production and sale of seed under the [Canadian Plant Breeders' Rights Act \(PBR\)](#) further discourages the sale of seed outside the pedigreed seed system.
- After 20 years, varieties are no longer protected by PBR. When PBR has expired, common seed may be sold, but it cannot be advertised and must be sold by market class, not by variety. Popular varieties will continue to be sold under the pedigreed seed system even after they are no longer protected by PBR.

MAINTAINING VARIETAL PURITY ON THE FARM

(CONTINUED)

Producers can also use farm-saved seed. By employing good practices, producers can maintain the quality and lessen the risk of declining varietal purity of farm-saved seed.

- Producers should know what variety they have, and consider testing farm-saved seed for varietal purity before it goes in the ground. Malting and grain companies will sometimes cover the cost of testing of malting barley seed for things like germination and varietal purity if a grower is signing a contract.
 - > Varietal purity can be confirmed by genetic tests at a cost of \$235-\$600 at SGS Labs. Be sure to enlist appropriate sampling procedures. Testing is also offered by the [Canadian Grain Commission](#) although the CGC uses a more expensive testing procedure.
- Save a sample of seed from each field or seed lot for testing if needed.
- Use crop rotation to eliminate volunteer barley before growing malting barley again (leave at least two years before growing barley on the same field). This is especially important if there are two or more malting barley varieties.
- Clean trucks, augers, seed tanks, grain bins and combines between fields, and especially when changing varieties.
- When transitioning to a new variety, or if multiple varieties are grown on a farm, implement good storage management systems to ensure varieties are kept separate and clearly labelled. These practices are particularly important on farms with multiple staff handling grain.

TAKE AWAY MESSAGE

Producers growing malting barley should take steps to ensure varietal purity by regularly using certified seed, and to avoid contamination through good on farm practices. This will help to optimize market acceptance and achieve the largest premium available.



REFERENCES FOR EXTERNAL LINKS:

CGSA Seed Locator: <https://seedlocator.net/>

CFIA: <https://inspection.canada.ca/> (search "PBR")

SGS: <https://www.sgs.ca/> (search "Barley Testing")

CGC: <https://www.grainscanada.gc.ca/en/> (search "Barley Testing")

CSGA What is Certified Seed?: <https://seedgrowers.ca/seed-growers/what-is-canadian-certified-seed/>

For more information:

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