
28. Glossary

This section describes grading factors, procedures and common terms used in grading Canadian grain.

AAFC (AAC)

Agriculture and Agri-Food Canada, the federal department of agriculture.

aeration (*ventilation*)

Aeration is the process of passing air currents through a grain stream. This process is used to preserve grain quality by reducing its temperature or moisture content.

ascochyta blight (*ascochytose*)

Ascochyta blight is a fungal disease that attacks the leaflets, stems, petioles, pods, and seeds of lentil. Heavily infected seeds usually are characterized by a half-moon shaped, light to reddish or reddish brown spot on the edge of the seed. Occasionally it appears as a brown spot on the cheek of the seed.

Ascochyta blight was first reported in Canada in 1978 and has subsequently become a serious problem. It causes yield losses and severe seed discolouration in epidemic years.

attritional material (*impuretés légères*)

Attritional material is material other than small seeds and whole or broken grain passing through the No. 4.5 round-hole sieve.

automatic mechanical sampler (*échantillonneur mécanique*)

An automatic mechanical sampler is a device which extracts a small representative portion from the grain flow at regular intervals.

Berlese funnel (*entonnoir Berlese*)

Berlese funnels are cone-shaped devices with a screen on the bottom used as part of the process for identifying infested grain. Grain suspected of being infested is placed in the funnel. The funnels are placed on a receptacle under lights. Insects move away from the heat of the lights down the funnel and are collected in the receptacles for identification.

binburnt kernels (*grains brûlés en entreposage*)

Binburnt kernels are caused by gradual heating in storage and have not been exposed to temperatures approaching ignition. In a cross section, the binburnt kernel maintains its dense structure and appears smooth and glossy. The weight of a binburnt kernel is similar to that of a sound kernel of comparable size.

Binburnt kernels closely resemble fireburnt kernels in colour, however, a fireburnt kernel looks like charcoal in cross-section, has numerous air holes, and crumbles easily under pressure.

See **fireburnt kernels**

blackpoint (*moucheture*)

Blackpoint is a discolouration on the germ end of kernels of grain caused by numerous species of fungi and bacteria. Blackpoint is found in barley, triticale and wheat, although there is no separate tolerance defined for blackpoint in barley.

Kernels are susceptible during periods of rainfall or humidity above 90%, particularly during filling or maturation.

Blackpoint does not usually reduce yields, but it can reduce grade and quality. Blackpoint is especially troublesome on durum wheat because black specks can appear in the semolina.

Boerner-type divider (*diviseur Boerner*)

A Boerner-type divider is a gravity-operated dividing apparatus that separates a grain sample into two smaller equal portions. The sample is placed in the upper hopper and released by opening the valve in the hopper throat. The sample flows downward and is evenly dispersed over a cone with evenly spaced separations. The divided sample is then directed into two grain streams, which empty into two collecting pans at the bottom.

boll membrane (*membrane de capsule*)

Boll membrane is the lining of the seed pod, or boll, that can at times be adhered to the seed.

brake end (*wagon-frein*)

The brake end is the end of a railway car where the hand brake wheel is located. Compartments or partitions in a railcar are numbered sequentially beginning at the brake end.

***Brassica carinata* (*Brassica carinata*)**

Commonly known as Ethiopian mustard, *Brassica carinata* is a small oilseed that is similar in size and shape to canola and domestic mustard seed. Varieties range in colour from brown to yellow and have high erucic acid content similar to mustard seed or rapeseed. *Brassica carinata* may not be readily distinguishable from other small oilseeds without the use of a microscope.

bunt (*carie du blé*)

Bunt is characterized by the presence of bunt balls or black spores. Infected grain may have a fishy odour. Common bunt is a wheat disease caused by two closely related fungi, *Tilletia caries* and *Tilletia foetida*. The disease is also called stinking or covered smut. In infected plants, kernels on headed plants are replaced with bunt balls containing black powdery spores of the fungus.

Bunt reduces yield of infected crops, and it reduces the value of the crop, even in mildly infected crops. It is not as common as it once was in Canada, because we have developed effective control measures and new cultivars that are resistant to the disease.

Canada Eastern, Canada Western, Canada (*Est canadien, Ouest canadien, Canada*)

These three terms form part of the grade name; for example, Canada Eastern Red Spring wheat, or Canada Western oats. The terms refer to the geographic area (eastern or western Canada) of delivery as defined in the *Canada Grain Act*, or to Canada generally.

Canada Grain Act (*Loi sur les grains du Canada*)

The *Canada Grain Act* is the statutory authority empowering the Canadian Grain Commission to regulate grain handling in Canada and to establish and maintain quality standards for Canadian grain. It was first passed in 1912. The text of the Act can be found at <https://laws-lois.justice.gc.ca/eng/acts/g-10/index.html>

Canada Grain Regulations (*Règlement sur les grains du Canada*)

The Regulations are established by Section 116 of the *Canada Grain Act*. They govern grain-handling procedures and define grades for grain grown in eastern and western Canada. The text of the Regulations can be found at https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._889/

canola (*canola*)

The term ‘canola’ was trademarked in 1978 by the Western Canadian Oilseed Crushers’ Association to differentiate low-erucic acid and low-glucosinolate varieties and their products from rapeseed varieties.

cargo sample (*échantillon de cargaison*)

A cargo sample is a composite of incremental samples taken as a cargo is loaded into a ship for export. Cargo samples are inspected and graded, and portions of them are sent to the Grain Research Laboratory for analysis.

caryopsis (*caryopse*)

The caryopsis is the kernel of cereal grains and grasses with the hull removed.

See **groats**.

cash purchase ticket (*bon de paiement*)

A cash purchase ticket is a ticket issued indicating the grade, weight, price and amount payable to the owner of the grain for each delivery of grain to a primary elevator, process elevator or grain dealer. The ticket is a negotiable instrument and can be cashed at any chartered bank or credit union. It is defined in the *Canada Grain Act*.

cereal grains (*céréales*)

Cereal grains are wheat, rye, barley, oats, triticale and canary seed.

Certificate Final (*Certificat final*)

The Certificate Final is issued by the Canadian Grain Commission for each cargo of export grain. The Certificate Final stipulates the grade and weight of the grain loaded on a vessel.

chitting (*germination en vert*)

Chitting, or pre-germination, is the premature sprouting of grain before harvest. Pre-germination can occur when mature barley is still in the field during prolonged wet weather before harvest.

Malt barley is passed through the barley pearler and the germ is assessed to determine the pre-germination of the sample (chitted barley). This procedure is used by the malt barley industry and is not part of the official grading system.

chlorophyll (*chlorophylle*)

Chlorophyll is a green pigment found in all green plants that is essential for photosynthesis. In canola, the seeds lose their chlorophyll as they ripen, however, the seeds do not ripen all at once therefore when harvested some seeds still contain chlorophyll. Immature canola seeds can contain very high levels of chlorophyll.

class (*classe*)

Classes are defined under the *Canada Grain Act*. Class, in respect of grain, means any variety or varieties of grain designated by order of the Canadian Grain Commission as a class.

coarse vegetable matter (*matières végétales grossières*)

Coarse vegetable matter is plant-based material handpicked from the sample such as pods, stems, straw, thistle tops and wheat heads, but not domestic or wild seeds.

commercially clean (*commerciallement propre*)

Commercially clean shipments are shipments of grain whose dockage components fall within allowed limits and is of a type normally present after standard commercial cleaning.

Commission (*Commission*)

The Canadian Grain Commission may be referred to as the commission or the CGC. The Chief Commissioner of the Canadian Grain Commission reports directly to the Minister of Agriculture.

Commission Order (*arrêté de la Commission*)

A Commission order is a directive of the Canadian Grain Commission consistent with Section 118 of the *Canada Grain Act*. An order remains in effect only until the end of the crop year in which it is issued, at which point it may be renewed. Orders can be viewed from the Canadian Grain Commission web site at <https://grainscanada.gc.ca/en/industry/orders>

composite sample (*échantillon composite*)

A composite sample is composed of a number of distinct portions, each obtained in a prescribed manner from primary samples. The portions are blended to make the composite.

contaminated grain (*grain contaminé*)

▲ **Important:** Wear gloves and a mask to handle any sample that is suspected of containing contaminated grain.

Grain is contaminated for the purposes of the *Canada Grain Act* if the grain contains any substance in sufficient quantity that the grain is either

- (a) adulterated for the purposes of the *Food and Drugs Act*; or
- (b) contaminated within the meaning of the regulations made under section 51 of the *Safe Foods for Canadians Act*.

Determination as to whether grain is contaminated will be made by the Grain Research Laboratory in consultation with the Chief Grain Inspector for Canada. Samples deemed to be contaminated are graded '(Type of Grain), Sample Condemned'.

Paragraph 76. (1) of the *Canada Grain Act* specifies that operators of licensed terminal elevator must inform the Canadian Grain Commission if they find grain to be infested or contaminated, or to have gone or to be likely to go out of condition or otherwise to require treatment. The Canadian Grain Commission may inspect the grain.

The Canadian Grain Commission tells the operator how to treat or dispose of the grain. If the grain has been special binned, the elevator operator may recover the costs of treating or disposing of the grain from the owner of the grain.

Paragraph 90. (1) says that a Canadian Grain Commission inspector who believes on reasonable grounds that grain is contaminated may seize any evidence necessary to support their suspicion.

Paragraph 104 says that an operator of a licensed elevator must not knowingly receive or discharge any grain, grain product or screenings that is infested or contaminated or that may reasonably be regarded as being infested or contaminated

cool and sweet (*frais et odeur agréable*)

Cool and sweet are terms used to describe the condition of grain which is of a normal temperature and is free from any objectionable odour.

cotyledon (*cotylédon*)

The portion of an oilseed or pulse crop seed that is beneath the seed coat or hull. Grading factors may be assessed based upon an examination of the cotyledon surface or a cross-section of the seed.

Cox funnel (*entonnoir Cox*)

A Cox funnel is a cone-shaped device used in determining test weight in conjunction with the 0.5-litre measure to control the flow of grain into the measure.

See Chapter 1, **Test weight**

crop year (*campagne agricole*)

The crop year is from July 1 to June 30 of the following year in Eastern Canada and August 1 to July 31 of the following year in Western Canada, as defined in the *Canada Grain Act*. The Governor in Council may, by order, vary the period of a crop year to another period of not less than three hundred and sixty-five days.

damp (*humide*)

A sample of grain is identified as damp if the moisture content exceeds the tough range defined for that class of grain.

See Chapter 2, **Moisture testing**

dehulled (*décortiqué*)

Occasionally used for hulled.

direct hit shipment (*transbordement direct à l'expédition*)

Direct hit shipments are those shipments where Canadian grains, oilseeds and/or pulses are transferred from trucks and/or railcars directly to a vessel without added processing.

direct export (*exportation directe*)

A direct export is an export movement from a primary or terminal elevator. The grain being loaded will be exported from the country.

dockage (*impuretés*)

According to the *Canada Grain Act*, dockage is material that must be removed from grain by the use of approved cleaning equipment so that the grain can be assigned a grade. Once it has been removed from the grain, dockage is called screenings.

To report the percentage by weight of dockage in a sample,

For . . .	dockage is . . .
grain that is not commercially clean	reported in increments of 0.1%
eastern grains	assessed to the nearest 0.1%
export shipments authorized by the Canadian Grain Commission to contain dockage	reported to the nearest 0.1%
grain graded <i>Sample Salvage</i> , <i>Sample Canada/CW/CE Account Fireburnt</i> , <i>Sample Condemned</i>	not reported
samples of official carlot or trucklot shipments containing dockage within established export limits for commercial cleanliness; for example, domestic buckwheat, 2.5%	what is normally present after ordinary commercial cleaning—there is no minimum canola, 2.5%, or dockage
off-grades	dockage is covered in the section describing the specific class of grain

Allowances are made for finely broken seeds in shipments not for direct export.

Eastern and western grain, mixed (*mélange de grain de l'Est et de l'Ouest*)

Mixtures of eastern and western grain, except for corn, are graded '(class of grain) Sample Eastern and Western Mixed'. When the composition of the samples is known or can be established by analysis, it is recorded on the inspection certificate.

Separate lots of western corn may be loaded to vessels without separation at the request of shippers.

ergot (*ergot*)

Ergot is a fungal disease which occurs on cereals and grasses. It is most prevalent on rye, triticale, wheat, and barley, in decreasing order of occurrence. It is rarely found on oats. The disease produces hard dense fungus bodies, called sclerotia, having a purplish black exterior, a purplish white to off-white interior, and a relatively smooth surface texture.

export ready (*prêt à exporter*)

Export ready refers to carlots of wheat which meet the following criteria:

1. The lot must meet the commercially clean specifications for the grade
2. Wheat of other classes and contrasting classes must meet the export specifications for the grade
3. Total foreign material must meet the export specification for the grade.

Carlots, which are commercially clean but do not meet the export specifications for either wheat of other classes or total foreign material, will be designated as “Not Ready for Export”.

fair average quality (FAQ) (*qualité marchande moyenne [FAQ]*)

FAQ is a term used in grain marketing in some countries to describe the current year’s grain quality on the basis of an average sample. The FAQ is a class of grain which is said to represent the quality of a commodity produced in a given year. FAQ standards of quality may change from year to year.

falling number (*indice de chute*)

The falling number is a measure of alpha-amylase enzyme activity as a result of sprouting. It is a measure of how many seconds it takes for a plunger to sink through a slurry made of ground grain and water.

The test works on the principle that the presence of alpha-amylase causes the gelatinized starch to be reduced to sugars, with a loss of viscosity. The loss in viscosity results in a lower falling number. Grain which is sound and has low levels of alpha-amylase will have a high falling number, for example, over 300 seconds. Samples of grain with higher amounts of alpha-amylase will have a lower falling number.

fireburnt kernels (*grains brûlés*)

Fireburnt kernels are kernels burned or scorched by fire. A cross-section of a fireburnt kernel resembles charcoal, with numerous air holes. These air holes result in a low-weight kernel which crumbles easily under pressure.

The Off-Grades of Grades of Grain and Grades of Screenings Order excludes from any Class I or Class II grade any grain having a fireburnt odour or containing fireburnt kernels in excess of established tolerances, because it is not possible to separate all kernels affected by smoke or heat from samples containing grain damaged by fire.

foreign material (*matières étrangères*)

Foreign material is material other than grain of the same class that remains in the sample after the removal of dockage. Some examples of foreign materials found in grain samples are:

- Cereal grains, sometimes called other cereal grains
- Earth pellets, soft
- Ergot
- Fertilizer pellets, hard
- Large seeds
- Matter other than cereal grains
- Roughage
- Sclerotinia
- Small seeds
- Stones

Many of the materials, such as stones, ergot, and sclerotinia have separate tolerances. Foreign material reduces the value—there is less desired grain for the weight or volume purchased. In addition, the presence of foreign material in grain compromises our reputation for clean grain.

Even the presence of other cereal grains can compromise the quality of the predominant grain. For example, the presence of barley in wheat reduces milling yield. Oats in red spring wheat reduces milling yield and gives the flour a duller colour.

Foreign material is defined for each grain under grading factors in its corresponding chapter in the Official Grain Grading Guide.

free fatty acids (*acides gras libres*)

Free fatty acids are components that reduce the smoke point in frying fats and oils. They oxidize rapidly, giving rancid flavours. High levels of free fatty acids in seeds is a sign of seed degradation.

The free fatty acids test gives a direct measure of the processing qualities of the oil and the amount of lye required to refine oils. Top canola seed usually has less than 0.7% free fatty acids.

glucosinolates (*glucosinolates*)

Glucosinolates are natural components of canola, rapeseed, and mustard seed. These compounds are responsible for the pungent odour and sharp flavour of cabbage, brussels sprouts, radishes, broccoli and cauliflower. They are natural toxicants, associated with goitre and liver damage when consumed in large quantities.

Glucosinolates are desirable in mustard seed destined for condiment use. However, high levels in rapeseed restricted the use of this seed for feed. Breeding programs to reduce the level of glucosinolates in rapeseed produced canola.

grade code (code de grade)

A grade code is a five-digit code used throughout the grain industry to identify each grade of each class of grain.

See also **grain code**.

grades of grain (grades de grain)

Grades of grain are defined by specifications in

- *The Canada Grain Regulations*, schedule 3
- The Official Grain Grading Guide
- Orders of the Canadian Grain Commission

Class	Authority	Example
I	Canada Grain Regulations	Wheat, No. 1 Canada Western Red Spring
II (special grades)	Canada Grain Regulations Orders of the Canadian Grain Commission	experimental grades Brassica Juncea Canola, Canada
III (off-grades)	Off-Grades of Grain and Grades of Screenings Order	tough, damp, rejected and sample grades
IV (screenings)	Off-Grades of Grain and Grades of Screenings Order	Screenings, No. 1 Feed

grading factor (facteur de classement)

A grading factor is a physical condition of grain, the result of growing conditions, handling procedures or storage practices. It is a visual characteristic that indicates a reduction in quality; for example, frost damage, sprouted kernels, or heated kernels. Only relevant grading factors are shown as reasons for a grade.

If a sample of wheat grades No. 3 for one particular reason, there is no need to list other factors that might be acceptable in a higher grade.

grain (grain)

A grain is any seed named in the *Canada Grain Act* or designated by the *Canada Grain Regulations* as a grain.

grain code (code de grain)

A grain code is a two-digit code used throughout the industry for each class of grain. It may also be referred to as a product code.

See also **grade code**.

groats (gruau)

Groats are hulled grains, and refer to the caryopsis of domestic or wild oats; that is, it is the kernel with the hull removed.

See **caryopsis**.

hard vitreous kernels (HVK) (*grains vitreux durs [HVK]*)

Vitreousness is the natural translucence of a kernel that is a visible sign of kernel hardness. Hard vitreous kernels (HVK) are a grade determinant for the amber durum wheat class in Canada and the red spring wheat class in western Canada.

HVK content is related to protein content and milling quality, which are particularly important in durum wheat. Non-vitreous kernels are produced under cool maturation conditions, abundant soil moisture and insufficient nitrogen. Flours milled from non-vitreous wheat have reduced protein content and produce poor loaf volumes. Non-vitreous kernels are not as significant in soft wheats, since low protein is desirable for most soft wheat end-products.

hazardous substance (*substance dangereuse*)

A hazardous substance is defined in the *Canada Grain Regulations* as any pesticide, desiccant or inoculant.

hilum (*hile*)

The scar on a seed marking the point of attachment to its seed pod.

hulled (*déglumé*)

Hulled kernels have the hulls removed, e.g., oat groats, peeled barley and hulled sunflower seeds.

hulless (*à grains nus*)

Hulless kernels have naturally loose hulls or no hulls, e.g., hulless oats and hulless barley.

identity-preserved (*ségrégation [préservation de l'identité]*)

A parcel of grain which is kept separate from the bulk handling system.

- In a primary elevator, identity-preserved or special bin grain is held in a separate bin at the request of the owner.
- Grains with unique properties may be required to keep all production separate from the bulk handling system

imported grain (*grain importé*)

Imported grain means any grain grown outside Canada or the United States and includes screenings from such a grain and every grain product manufactured or processed from such a grain.

If the inspector suspects that a sample or shipment of grain is not of Canadian or American origin, the shipper must provide a letter indicating the country of origin, before official grading occurs.

Unofficial samples

Inspection services may be provided for samples of imported grains. Certificates or letters must clearly indicate that the grade provided is the grade the sample would qualify for if the grain had been of Canadian origin.

Official samples, terminal receipts

Inspection records and certificates specify the class of grain and, in place of the grade, the country of origin. For example, 'Corn, Ukrainian origin'.

insect infestation (*infestation par les insectes*)

According to the *Canada Grain Act*, infested grain is grain that contains any injurious, noxious or troublesome insect or animal pest.

The *Canada Grain Regulations* establish procedures for handling infested grain at primary elevators. Grain found infested at terminal elevators is handled and treated under the direction of an officer of the Canadian Grain Commission.

inspection certificate (*certificat d'inspection*)

See **Certificate Final** and **submitted sample certificate**

iodine value (*indice d'iode*)

Iodine value is a measure of the total amount of unsaturated fatty acids in an oil. In flaxseed, iodine values of 189 or greater are required for the manufacture of paints and inks. Lower values, around 182, are needed for the manufacture of linoleum.

laker (*cargo hors-mer*)

A laker is a long, shallow draft ship designed to transport cargoes within the inland water system of the St. Lawrence Seaway.

large seeds (*grosses graines*)

Large seeds include whole and broken peas, soybeans, lentils, corn, domestic and wild seeds with the exception of cereal grains and wild oats that remain on top of the No. 4.5 round-hole sieve. Large seeds are considered foreign material in some classes of grain.

loading order (*commande de chargement*)

A loading order is given by the terminal elevator operator to the inspector in charge. It indicates the quantity and grade of grain ordered for shipment.

manufactured products (*produits fabriqués*)

Manufactured products are materials other than grain cleanings and includes materials such as malted, crushed, or ground grain which cannot be assigned a grade.

marine leg (*élévateur à godets portuaire*)

A marine leg is a mechanical device used to offload bulk grain from the hold of a vessel, normally from a laker into a terminal elevator along the St. Lawrence.

mineral matter (*matières minérales*)

Mineral matter refers to stones, earth pellets, fertilizer and screening pellets that may be found in samples of grain.

moist (*mouillé*)

A sample of grain is identified as moist if the moisture content exceeds the damp range established for that class of grain.

See Chapter 2, **Moisture testing**

moisture content (*teneur en eau [humidité]*)

Moisture content is a measure of the water content of grain.

Grain that is within acceptable limits of moisture is referred to as a straight grade. With increasing moisture content, grain may be referred to as tough, damp, moist and wet.

See Chapter 2, **Moisture testing**

mycotoxins (*mycotoxines*)

Mycotoxins are poisonous substances produced by some species of fungi.

For example, several fusarium species can cause a disease called fusarium head blight. One of the more important species of fusarium, *Fusarium graminearum*, can produce several mycotoxins, most commonly, deoxynivalenol or vomitoxin, which, when present in feed grain, is distasteful and can reduce the rate of weight gain in some animals.

In corn, *Fusarium graminearum*, also called *Gibberella zeae*, causes the disease gibberella ear rot. Besides deoxynivalenol, another compound known as zearalerone may be formed. This compound has estrogen-like effects, especially in pigs and cattle.

non-vitreous kernels (*grains non vitreux*)

See **hard vitreous kernels (HVK)**.

not commercially clean (*non commercialement propre*)

Shipments of grain whose dockage components exceed commercially clean allowable limits.

See **commercially clean**.

not for direct export (*expédition non destinée à l'exportation directe*)

A shipment not for direct export is a domestic movement from a terminal elevator. The grain will be reloaded at a terminal elevator along the St. Lawrence for export and delivery to the buyer.

objectionable odour (*odeur désagréable*)

An objectionable odour is one not normally associated with grain, such as skunk, sour, musty, oil, or gas. Heated or fireburnt odours are identified specifically and not included in the general category of objectionable odour.

Off-Grades of Grain and Grades of Screenings Order (*Arrêté sur les grades de grain défectueux et les grades de criblures*)

The Off-Grades of Grain and Grades of Screening Order is issued by the Canadian Grain Commission. It provides the authority for the application of the grading terms rejected, sample, tough, damp, moist, and wet, and defines grades of screenings.

The Off-Grades of Grain and Screenings Order is available at this address:
https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._890/index.html

official inspection (*inspection officielle*)

An official inspection is done when an official sample of grain is graded by a Canadian Grain Commission inspector.

See **official sample**

official sample (*échantillon officiel*)

An official sample is a sample of grain taken from a parcel of grain by a person authorized by the Commission to take the sample or by any sampling device authorized by the Commission.

oilseeds (*oléagineux*)

Oilseeds are crops grown for their oil. They include flaxseed, canola and rapeseed, soybeans, safflower and sunflower seed.

Order of Precedence (*Ordre de priorité*)

The following list is used to assign reasons for sample grades.

1. Sample Condemned
 2. Sample Salvage
 3. Sample Account Fireburnt
 4. Sample Account Excreta
 5. Sample Account Fusarium
 6. Sample Account Ergot
 7. Sample Account Odour
 8. Sample Account Rotted
 9. Sample Account Heated
 10. Sample Account Mildewed
 11. Sample Account Damaged
 12. Sample Account Damage and Foreign Material
 13. Sample Account Dehulled
 14. Sample Account Stained Kernels
 15. Sample Account Sprouted
 16. Sample Account Admixture
 17. Sample Account Splits
 18. Sample Account Lightweight
 19. Sample Account Stones
 20. Sample Account Mixed Colours
-

other matter (*autres matières*)

Other matter refers to inseparable material excluding cereal grains, large seeds, wild oats, stones, mineral matter, ergot and sclerotinia.

out of condition (*grain détérioré*)

Grain which is out of condition has deteriorated in storage. Grain that is damp, heating or spoiling in storage requires special treatment such as drying or aeration to preserve its quality or to prevent further deterioration.

Paragraph 76. (1) of the *Canada Grain Act* specifies that operators of licensed terminal elevator must inform the Canadian Grain Commission if they find grain that is or is likely to go out of condition. The Canadian Grain Commission may inspect the grain. The Canadian Grain Commission tells the operator how to treat or dispose of the grain. If the grain has been special binned, the elevator operator may recover the costs of treating or disposing of the grain from the owner of the grain.

primary elevator (*silo primaire*)

A primary elevator is a licensed elevator used to accept deliveries of grain directly from producers for storage or forwarding.

primary sample (*échantillon primaire*)

A sample taken from a lot of grain during one single sampling action.

process elevator (*silo de transformation*)

A process elevator is an elevator which is used principally to receive and store grain for processing directly into other products.

processed sample (*échantillon traité*)

An unofficial sample of grain declared to be conditioned or cleaned to meet end user specifications, and whereas, the determination of dockage and/or determination of commercially clean are not performed or reported..

producer car (*wagon de producteur*)

A producer car is a railcar that is loaded and shipped by a producer to a terminal elevator. Producers apply to the Canadian Grain Commission to have a railcar allocated to them.

pulses (*légumineuses*)

Pulses are the dried edible seeds of certain plants in the legume family. Pulse crops grown in Canada include peas, lentils, chickpeas and beans.

registered variety (*variété enregistrée*)

A variety of grain registered under the authority of the *Canada Seeds Act*.

rejected grades (*grades rejetés*)

Rejected grades are defined in the Off-Grades of Grain and Grades of Screenings Order. The term is not used in grading eastern grain. Numerical grades of western grain may be graded rejected only because of stones. If the stones are removed, the Rejected designation is dropped.

representative sample (*échantillon représentatif*)

A representative sample is a sample that accurately represents a given lot of grain. To ensure samples adequately reflect the entire lot of grain, proper sampling procedures must be used. Official samples are taken using continuous sampling devices. The Canadian Grain Commission publishes a factsheet on sampling procedures, called [Taking a Representative Sample](#).

roughage (*fourrage grossier*)

Roughage is a type of foreign material found in grains. It includes chaff, loose hulls, empty seed pods, knuckles, etc., that are readily removable by aspiration, handpicking, or other cleaning procedures.

saltie (*salé*)

A saltie is a vessel designed for ocean navigation.

sample grades (*grades d'échantillon*)

Sample grades are defined in the Off-Grades of Grain and Grades of Screenings Order. Grain that is not eligible for Class I or II grades under the *Canada Grain Act* is graded Sample. With the exception of sample salvage, reference is made in all sample grades to Canada (CAN), Canada Western (CW) or Canada Eastern (CE); for example, 'Barley, Sample CW Account Heated'.

Only the major grading factor forms part of the grade name. Secondary reasons for a sample grade are noted in remarks; for example, a sample of rye having a strong chemical odour and containing 9.0% by weight of heated kernels might have the following comments:

- The grade is 'Rye, Sample CW/CE, Account Odour'.
- The inspector's remarks include strong chemical odour, 9.0% heated.

The remarks section of the inspection record for samples graded 'Sample CW/CE/Canada' may include the following:

- For wheat, the class or classes of wheat eligible for sample grades
- The nature and concentration of admixture in samples graded 'Sample CW/CE/Canada, Account Admixture'
- The kind of odour in samples graded 'Sample CW/CE/Canada, Account Odour'

When sample grades are assigned, the reason shown for the grade is selected according to the Order of Precedence.

See **Order of Precedence**

sample interval (*pas d'échantillonnage*)

A sample interval is the time between the repeated sample-capturing action of a sample method or device.

sample salvage (*échantillon - grains récupérés*)

Any grain salvaged from a wreck in transit containing over 2.5% by weight of stones or any other conspicuous ground material, removable or not, is graded '(class of grain), Sample Salvage'. For example, 'Wheat, Sample Salvage'.

- Admixtures of inseparable seeds or other grains are disregarded if they do not exceed the tolerances permitted in the lowest grade of that grain.
 - The composition of samples is indicated on inspection certificates
-

sawfly damage (*dommages causés par la tenthrède*)

The wheat stem sawfly has caused serious harvest losses to spring wheat in the prairie region. It attacks the base of stems causing tillers of mature plants to break off. Early swathing can reduce spring wheat harvest losses, but the most effective means of managing this insect pest has been the production of resistant cultivars.

scab damage (*dommages causés par la brûlure de l'épi causée par le fusarium [fusariose]*)

Scab damage refers to kernels of wheat that have been severely affected by fusarium. Scab damage is included in and assessed as fusarium damage for grade assessment. The percentage concentration of scab damage may be recorded for specific markets upon request.

- Scab kernels must be completely dull, lifeless, with a chalky appearance, and
- Must have no semblance of soundness and no visible natural wheat colour, and
- Scab kernels must have a white or pinkish fibrous growth

Note: If there is any natural wheat colour, the kernel is not to be considered as scab damage

Schopper chondrometer (*chondromètre Schopper*)

The Schopper chondrometer is a device used to measure the compacted bulk density of grain also known as its test weight. The grain is dropped inside a metal cylinder along with a heavy disc which pushes air out through the perforated bottom of the cylinder and compacts the grain. The compacted sample is weighed and the resulting bulk density values are used by the Canadian Grain Commission to create charts and calculators that convert the uncompacted weight of grains in a 0.5-L measure to a test weight value in kilograms per hectolitre.

sclerotia (*sclérotés*)

Sclerotia are hard, compact masses of fungal mycelium that serve as resting or survival structures.

One type of sclerotia is the mass of fungal tissue produced by the soil-borne fungus *Sclerotinia sclerotiorum*, which attacks crops such as sunflower and canola. Infections result in yield loss. While it does not attack cereal crops, sclerotia may be found as contaminants in samples of cereal grains from infected fields.

screening pellets (*granulés de criblures*)

Screening pellets are a manufactured product made by compressing dockage material to form hard cylindrical shaped pieces. Screening pellets are used in animal feed rations.

screenings (*criblures*)

Screenings is dockage material that has been removed by cleaning from a parcel of grain. Screenings qualify for Class IV grades.

See [Off-Grades of Grain and Grades of Screenings Order](#).

shrinkage allowances (*marges de perte de poids*)

Shrinkage means the loss in weight of grain that occurs in the handling or treating of grain.

Paragraph 30 of the *Canada Grain Regulations* specifies the maximum shrinkage allowance that may be made on the delivery of grain to any licensed elevator is zero. An [order](#) given by the Canadian Grain Commission provides the calculation of moisture shrinkage allowed for tough, damp, moist or wet grain artificially dried at the producer's request at primary elevators.

sieves (*tamis*)

Sieves are devices used to separate material of different sizes and compositions used in dockage assessment and grading procedures. Sieves may be handheld or machine type. The accuracy of sieves used by the Canadian Grain Commission is regularly monitored.

See Chapter 3 of this guide, **Specifications for sieves**.

small seeds (*petites graines*)

Small seeds are considered foreign material in some classes of grain. It includes all seeds removable through a No. 4.5 round-hole sieve.

smut (*charbon*)

See **bunt**.

soundness (*condition*)

Soundness refers to overall visual grain quality. Sound grain is reasonably well matured and reasonably free from damaged kernels.

special bin grain (*grain en cellule spéciale*)

In a primary elevator, special bin grain is held in a separate bin at the request of the owner. It is sometimes referred to as identity-preserved.

See **identity-preserved**

special cleaning (*nettoyage spécial*)

Special cleaning refers to any cleaning of grain in addition to the usual dockage assessment procedure. Special cleaning is used to improve the grade of the grain.

spiral cleaner (*trieur en spirale*)

The spiral cleaner removes flat seeds from yellow mustard seed.

standards (*échantillons-types*)

The Eastern and Western Standards Committees meet twice annually and recommend to the Canadian Grain Commission standards of grain for use in grading during that crop year.

Standards are prepared for most grades of grain and represent as nearly as possible the minimum quality of each grade, considering the predominant visual grading factors for that class of grain. They are used as visual guides to grading grain before and on delivery at terminal elevators, and on shipments from terminal elevators.

stowage (*arrimage*)

Stowage refers to the location or hold where grain has been loaded to a vessel.

straight (*grades secs*)

Straight grades of grain are those within accepted limits of moisture. With increasing moisture content, grain is graded tough, damp, moist, or wet.

See Chapter 2, **Moisture testing**

submitted sample (*échantillon soumis*)

A submitted sample is an unofficial sample sent in by a grain company or producer for grading or for other tests. The Canadian Grain Commission charges a fee for any analysis on a submitted sample.

submitted sample certificate (*certificat d'échantillon soumis*)

A submitted sample certificate is a certificate issued detailing the grading and analytical results of a sample submitted to the Canadian Grain Commission, including samples submitted through final quality determination.

sweet (*odeur agréable*)

See **cool and sweet**

terminal elevator (*silo terminal*)

A terminal elevator is a licensed elevator used principally to receive grain and condition grain for export.

An inland terminal elevator is an elevator—licensed as a primary elevator—for receiving and conditioning of the grain for direct or indirect export.

terms of delivery (*conditions de livraison*)

Terms of delivery refers to the deductions that will occur when a producer delivers grain in Quebec. All deductions are posted in the delivery points.

test weight (*poids spécifique*)

Test weight is the weight of a known volume of grain expressed in kilograms per hectolitre.

For procedure, see Chapter 1 of this guide, **Test weight**.

tombstone kernels (*grains momifiés*)

Tombstone kernel is an obsolete term for a fusarium-damaged kernel.

tough (*gourd*)

A sample of grain is identified as tough if the moisture content exceeds the straight range established for that class of grain but is not damp.

See Chapter 2, **Moisture testing**

trade memo (*note de service à l'industrie*)

The Canadian Grain Commission issues trade memos to provide grading instructions, information about our procedures or information required to satisfy Canadian Grain Commission orders or regulations.

The current list of trade memos can be found at this address:

<https://grainscanada.gc.ca/en/industry/memos/>

treated seed and other chemical substances (*semence traitée et autres produits chimiques*)**Treated seed**

Treated seed is grain that has been adulterated with an agricultural chemical for agronomic purposes. The types of agricultural chemicals used to treat seed include pesticides, fungicides and inoculants. These seed dressings contain a dye to render the treated seed visually conspicuous. The colour of the dye varies depending upon the type of treatment and the type of grain. The current Canadian colour standard for pesticide and fungicide seed treatments for cereal (including corn) is red or pink. The colour standard for pesticide and fungicide seed treatments for canola is blue; however, green has also been used. Pulse crop (including soybeans) pesticide and fungicide seed treatments are typically blue or green. The coatings or stains may appear greasy or powdery and the surface area covered may range from tiny flecks to complete coverage.

Other chemical substances

Other chemical substances refers to any chemical residues either adhering to the kernel or remaining in the sample and to samples having a chemical odour of any kind.

unofficial sample (*échantillon non officiel*)

An unofficial sample is a sample drawn without the supervision of an employee of the Canadian Grain Commission, or a Canadian Grain Commission accredited sampling service provider.

unregistered variety (*variété non enregistrée*)

An unregistered variety is a variety not registered under the authority of the Canada Seeds Act. It is sometimes referred to as a non-registered variety.

See **registered variety**.

variety (*variété*)

As per the [Seeds Regulations](#) variety has the meaning assigned to cultivar by the International Union of Biological Sciences' Commission for the Nomenclature of Cultivated Plants and denotes an assemblage of cultivated plants, including hybrids constituted by controlled cross-pollination, that

- (a) are distinguished by common morphological, physiological, cytological, chemical or other characteristics, and
 - (b) retain their distinguishing characteristics when reproduced
-

Variety Designation List (*liste des variétés désignées*)

The Variety Designation List is established for wheat classes and for malting and food barley varieties.

The designation lists can be found at this address: <https://grainscanada.gc.ca/en/grain-quality/variety-lists/>

variety name (*nom de variété*)

A variety name include a word, a number or a letter and number combination used to designate a variety.

vomitoxin (*vomitoxine*)

Vomitoxin or deoxynivalenol (DON) is a mycotoxin produced by *Fusarium graminearum*.

weathered (*abîmé par les intempéries*)

Weathered is the deterioration in visual appearance of grain from its natural state, which may impact its end use functionality. Weathering is the result of exposure to environmental conditions such as: freezing temperatures, excessive heat, and rain. The degree of damage that results is dependent upon the length of time grain is exposed to, and the severity of the adverse weather conditions.

weed stain (*tache de mauvaises herbes*)

A weed stain is a type of natural stain. A weed stain refers to

- The blotched or stained appearance of kernels caused by contact with the sap from green foliage of such weeds as Russian thistle
- Kernels with adhered foliage of weeds

wet (*trempé*)

A sample of grain is identified as wet if the moisture content exceeds the moist range established for that class of grain.

See Chapter 2, **Moisture testing**

wild oats (*folle avoine*)

Wild oats is an annual grassy weed. It reduces crop yield, increases dockage and cleaning costs, lowers the grade, and is costly to control. Seeds of wild oats vary in colour from white to black. They are normally more slender than domestic oats and have a slanting, circular, depressed scar—sometimes called a sucker mouth—at their base, and a bent twisted awn.

working tolerance (*tolérance pratique*)

Where specified in this Guide, working tolerances are applied in addition to the established grading tolerances.

