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# Official Grain Grading Guide

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## 23. Screenings

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## Composition of screenings

Screenings consist of dockage material that qualifies only for Class IV grades. Screenings are graded in accordance with the specifications in the *Off-grades of Grain and Grades of Screenings* order.

Show the composition of screenings in detail on all records for carlots and cargoes. The composition determines the market value of the screenings.

### Whole grain in screenings

Whole grain in screenings includes wheat, rye, barley, oats, triticale, flaxseed, rapeseed, canola, domestic mustard seed and pulses.

At a terminal, process, or transfer elevator, show the percentage by weight and the grade of whole grain in screenings on all inspection records and grade certificates and as part of the grade name, if

- Shipments contain 6.0% or over by weight of whole grain which can be separated by the usual cleaning methods
- The grain qualifies for an official, special or off-grade

For example,

Grade: <i>Refuse Screenings, less 15.0% Wheat, CW/CE Feed</i>	
Composition	10.0% chaff
	15.0% Wheat CW/CE Feed
	8.0% large seeds
	67.0% small seeds and dust
Total	100.0%

Report the percentage by weight and the kinds of whole grain in the sample for samples representing shipments from primary elevators or unlicensed warehouses to destinations other than terminal or transfer elevators.

For example,

Grade: <i>Refuse Screenings, less 15.0% Wheat</i>	
Composition	10.0% chaff
	15.0% Wheat
	8.0% large seeds
	67.0% small seeds and dust
Total	100.0%

### **Canola, rapeseed or domestic mustard seed in screenings**

Record the percentage by weight of whole seeds of small oilseeds, canola, rapeseed or domestic mustard seed, that can be separated from samples of screenings by approved sieves.

Include small, shrivelled or broken seeds which pass through the slotted sieve in the total percentage by weight of small seeds and dust.

### **Dockage**

Dockage is not assessed for screenings except for *Mixed Feed Oats*.

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## Grading factors

### Ergot (ERG)

Ergot is a disease that attacks cereal grains and results in a fungus growth in place of the kernel of grain. The disease produces elongated fungal bodies that have a purplish-black exterior, a purplish-white to off white interior, and a relatively smooth surface texture.

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### Excreta (EXCR)

▲ **Important:** Wear gloves and a mask to handle any samples that you suspect may contain excreta.

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### Heated, fireburnt and odour (HTD, FBNT, ODOR)

Screenings that are not sweet are graded according to their composition with the condition included in the grade name.

If odour is the grade determinant and there is . . .	Then the grade is . . .
An excessive objectionable odour not associated with the quality of the grain, but not heated or fireburnt	<i>Screenings, (Grade Name) Account Odour</i>
An excessive heated odour	<i>Screenings, (Grade Name) Account Heated</i>
An excessive fireburnt odour	<i>Screenings, (Grade Name) Account Fireburnt</i>

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### Injurious seeds

The following seeds are designated by the Feeds Regulations as detrimental to animal health:

bird rape	cockle, cow
cockle, purple	darnel
false flax, flat-seeded	false flax, small-seeded
false flax, western (large seeded)	mustard, black
mustard, Indian	mustard, hare's-ear
mustard, tumble	mustard, wild
mustard, wormseed	stinkweed

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### Knuckles and straw, (KNKLS STRAW)

Knuckles include empty wheat heads, nodes of stems and short pieces of straw up to approximately 2.5 cm in length.

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### Mustard seed (MUS)

Common wild mustard and hare's ear mustard seed are designated as injurious in the Canada Feed Regulations.

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### Other domestic grains

Other domestic grains are any grains other than wheat, rye, barley, oats, triticale, flaxseed, solin, rapeseed, canola, domestic mustard seed and pulses.

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**Other large seeds (OLSDS)**

Other large seeds are seeds not designated as injurious in the Canada Feed Regulations. They include lady's thumb and pale smartweed.

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**Sclerotinia sclerotiorum (SCL)**

*Sclerotinia sclerotiorum* is a fungus producing hard masses of fungal tissue, called *sclerotia*. The sclerotia vary in size and shape, have a coarse surface texture, vary in exterior color from dark black to gray to white and have a pure white interior.

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**Soft earth pellets (SEP)**

Soft earth pellets include soft fertilizer pellets and any other non-toxic material of a similar consistency.

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**Stones (STNS)**

Stones include hard shale, coal, hard earth pellets, fertilizer pellets and other non-toxic materials of similar consistency.

**Other factors****By-products of a manufacturing process**

By-products of a manufacturing process are materials such as malt sprouts, oat hulls, ground and pelleted material. They do not qualify as grain screenings.

If inspection is requested on material that is wholly or partly processed grain screenings, it is graded *Sample* according to the dominant product, for example, *Sample Malt Sprouts*, *Sample Screenings*, *Ground*; *Sample Oat Hulls*.

**Pelleted screenings**

When official weighing or inspection of pellets made from Canadian grain screenings is requested, the official description is *Canadian ground and pelleted screenings*.

At the request of a shipper, you may show the prime source of screenings in parentheses following the description, for example, *Canadian ground and pelleted screenings (flaxseed)*.

If you are in doubt about the source, you may request a letter of certification from the shipper certifying the source of the screenings. Shippers may also request to have the word *grain* included in the description of the pellets, for example, *Canadian ground and pelleted grain screenings*.

Pellets received into terminal elevators made from processing residues of agricultural products are described as simply as possible, for example, *Canadian canola extraction pellets*, *Canadian wheat bran pellets*, *Canadian beet pulp pellets*. You must be reasonably certain of the source or country of origin.

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## Cleaning screenings

### Feed screenings

1. Divide a representative portion of approximately 500 g from the sample.
2. Sift the portion over the No. 4.5 round-hole sieve to assess the percentage of small weed seeds, chaff, hulls, dust, etc.
3. Handpick a representative portion of at least 10 g to determine the components of the sample.
4. Show the composition in detail in all records and endorse the backs of certificates.

### Uncleaned screenings

Uncleaned screenings do not meet the specifications for No. 1 or No. 2 Feed screenings because of their content of weed seeds, hulls, chaff or dust. Uncleaned screenings must contain at least 35.0% of material that if separated would meet the grade requirements for No. 1 Feed screenings.

1. Divide a representative portion of not less than 750 g from the uncleaned sample.
2. Sift the portion over the No. 4.5 round-hole sieve to assess the percentage by weight of small weed seeds and dust.
3. Handpick a representative portion not less than 10 g to determine the components of the sample.
4. Show the composition of the sample in detail on all records and endorse the backs of certificates.

### Refuse screenings

Refuse screenings do not meet the grade requirements for *Uncleaned screenings* because of their content of weed seeds, chaff or dust.

1. Divide a representative portion of not less than 250 g from the uncleaned sample.
2. Sift the representative portion over the No. 5 buckwheat and the No. 4.5 round-hole sieves nested to determine the percentage by weight of seeds.
3. Class as large seeds those that pass through the No. 5 buckwheat sieve but remain on top of the No. 4.5 round-hole.
4. Class as small seeds material that passes through the No. 4.5 round-hole sieve.
5. Handpick a representative portion of at least 25 g of the material remaining on top of the 5 buckwheat sieve.

### Notation as to kind

When no written request is received for a notation as to kind, such a notation is entered on the records only and it is stated that the notation does not appear on the certificate, for example, *Canola—not shown on certificate*.



## Grade determinants tables

### Screenings

Grade name	Standard of quality	Minimum quantity of shrunken or broken grain %	Maximum tolerances, including canola, rapeseed, wild and domestic mustard seed						
			Hare's ear or wild mustard seed %	Maximum tolerances, including weed seeds which pass through a No. 4.5 round-hole sieve, chaff, dust				Total %	Total %
				Hulls %	Soft earth pellets %	Knuckles and straw			
Straw %	Total %	Total %	Total %						
No. 1 Feed Screenings	Must be cool and sweet	35	2	1	1	0.25	3	3	6
No. 2 Feed Screenings	Must be cool and sweet	No minimum	2	1	1	0.25	3	3	10
Uncleaned	No requirements	*	*	*	3	5	5	*	*
Refuse	No requirements	No minimum	No limit	No limit	3	No limit	No limit	No limit	No limit
Grade, if specs not met	<i>(Grade name)*, Account Heated, or Fireburnt, or Odour</i>				<i>Sample Screenings, Account Soft Earth Pellets</i>				

Grade name	Ergot %	Excreta %	Injurious seeds		Other domestic grains %	Other large seeds %	Sclerotinia %	Stones %	Wild buckwheat %	Wild oats %	Wild oat hulls %
			Other than hare's ear or wild mustard seed %	Total %							
No. 1 Feed Screenings	0.1	0.02	1	2	Nil	10	0.25	0.3	65	8	N/a
No. 2 Feed Screenings	0.1	0.02	1	2	5	No limit	0.25	0.3	No limit	49	N/a
Uncleaned	0.1	0.1	*	*	10	*	0.25	0.5	*	49	1
Refuse	0.1	0.1	No limit	No limit	10	No limit	0.25	0.5	No limit	No limit	No limit
Grade, if specs not met	<i>(Grade name) Screenings, Ergoly</i>	<i>Sample Screenings, Account Excreta</i>			<i>Sample Screenings, with composition in remarks</i>		<i>Sample Screenings, Account Sclerotinia</i>	<i>Sample Screenings, Account Stones</i>		<i>See Mixed feed oats</i>	

\* Sample must contain 35% of material that qualifies for No. 1 Feed Screenings

## Mixed Feed Oats

### Cleaning

1. Divide a representative portion of at least 750 g from the uncleaned sample.
2. Sift the representative portion over the No. 4.5 round-hole sieve to remove up to 1% by weight of small weed seeds, chaff and dust.

If more than 1% of small seeds, chaff and dust passes through the No. 4.5 round hole sieve,

1. Assess dockage.
  2. Record dockage to the nearest 0.1%.
3. Handpick soft earth pellets from the cleaned sample.
    - For samples containing up to 10% by weight of soft earth pellets, assess earth pellets as dockage.
    - For samples containing over 10% soft earth pellets by weight, grade *Sample Screenings, Account Earth Pellets*.
  4. Show the composition in detail on all records for carlots and cargoes.

### Composition

Samples must contain at least 50% by weight of wild oats.

Grade name	Material through No. 4.5 round-hole sieve %	Wild buckwheat, wheat heads, knuckles, straw and chaff			
		Knuckles, straw and chaff %	Wheat heads %	Wild buckwheat %	Total %
Mixed Feed Oats	1	4	5	5	5
No. 2 Mixed Feed Oats	1	4	5	5	10
Grade, if No. 2 specs not met	Report as dockage to the nearest 0.5%				

Grade name	Ergot %	Excreta %	Flaxseed %	Heated %	Other domestic grains %	Sclerotinia %	Stones %
Mixed Feed Oats	<u>0.25</u>	0.02	5	5	5	<u>0.25</u>	0.1
No. 2 Mixed Feed Oats	<u>0.33</u>	0.02	5	10	5	<u>0.25</u>	0.2
Grade, if No. 2 specs not met	<i>Mixed Feed Oats, Ergoty</i>	<i>Mixed Feed Oats, Excreta</i>		<i>Mixed Feed Oats, Heated</i>		<i>Sample Screenings Account Sclerotinia</i>	<i>Sample Screenings Account Stones</i>