

Ontario Hard Red Winter Wheat

Technical Information



ONTARIO WHEAT

Ontario wheat producers have a history of innovation and the experience in wheat production to meet the quality demands of both domestic and international markets. Our producers have been growing high quality wheat for over fifty years.

Ontario wheat is graded by international grade standards that ensure our shipments of grain consistently meet contract specifications for quality, safety, and quantity.

Ontario is situated between the Great Lakes and the St. Lawrence River Basin, and our temperature climate and fertile soils are key components to producing top quality hard red winter wheat.

Because of Ontario's size and varied geography, its producers grow several varieties of wheat: from soft wheat in the southwest to hard wheat in the east. Ontario's wheat production is supported by our proximity to strong transportation infrastructure (highways, rail lines, and river access to ocean ports) and an ample supply of energy sources.

2017 WHEAT, CANADA EASTERN RED - HARD RED WINTER WHEAT

Quality data for Canada Eastern red wheat composites representing Ontario's hard red winter wheat are shown in the table on page 2. Wheat protein is ideal for many flat bread, noodle and pizza dough applications at 10.8% and 13.7% on a dry matter basis for 2017.

This season's wheat falling number (330 seconds) and flour amylograph peak viscosity value (330 BU) is average. This indicates an excellent quality of wheat with low levels of sprouting and enzyme activity, and good expected shelf life for end products. Milling yield from the 2017 composite samples is 78.2%.

CANADA EASTERN HARD RED WINTER WHEAT - EXPORT GRADE SPECIFICATIONS*

	No. 2 CEHRW	No. 3 CEHRW	CE FEED
Minimum test weight, kg/hL	74	69	65
Total foreign material including other cereal grains	1.5	3.5	10
Fusarium damage, %	1.0	1.5	5
Heated, %	0.75	2.00	2.50
Shrunken, %	10	12	no limit
Broken, %	10	10	50
Total shrunken & broken, %	11	13	no limit within broken tolerances
Smudge, %	1	5	no limit
Total smudge and blackpoint, %	20	35	no limit
Sprouted, %	2.5	8	no limit

* abridged from the Canadian Grain Commission's Official Grain Grading Guide
For complete official grain standards, see <http://www.grainscanada.gc.ca/oggg-gocg/04/oggg-gocg-4f-eng.htm#m>.

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CANADA EASTERN HARD RED WINTER WHEAT

Quality data for 2017 harvest survey grade composite samples

WHEAT

Test Weight	79.9 kg/hL
Weight Per 1000 Kernels	39.4 g
Protein C.N.A. ¹	10.8 %
Protein (dry matter basis)	13.7 %
Protein Loss on Milling	0.9 %
Ash Content	1.51 %
Falling Number	330 sec
Particle Size Index	74.0 %
Milling Yield - clean basis	76.0 %
Milling Yield - 0.50% ash basis	78.2 %

FLOUR

Protein C.N.A. ²	9.9 %
Amylograph Peak Viscosity	330 BU
Wet Gluten ²	26.9 %
Dry Gluten ²	8.8 %
Gluten Index ²	71.9 %
Ash Content ²	0.46 %
Colour, CIELAB L*	90.7
Colour, CIELAB a*	-1.40
Colour, CIELAB b*	9.80
Starch Damage	21.8 UCD
Solvent retention capacity - water	64 %
Solvent retention capacity - lactic acid 5%	120 %
Solvent retention capacity - lactic acid after 30 days	- %
Solvent retention capacity - sucrose 50 %	107 %
Solvent retention capacity - sodium carbonate 5%	91 %

FARINOGRAPH

Absorption	57.7 %
Dough Development Time	2.89 min
Mixing Tolerance Index	41 BU
Stability	5.97 min

EXTENSOGRAPH (45/135 min)

Water Absorption	55.0 %
Length (E)	14.9/15.6 cm
Height at 5cm (R5)	192/192 BU
Max Height (Rmax)	243/247 BU
Area (A)	51/55 cm ²

ALVEOGRAPH

P	59 mmH ₂ O
Length (L)	85 mm
P/L	0.69
W	160 10 ⁻⁴ J

BAKING (REMIX-TO-PEAK BAKING TEST)

Long fermentation - Baking Absorption	57.7 %
Long fermentation - Time	2.8 min
Long fermentation - Mixing energy dough (RAR)	6.36 Wh/kg dough
Long fermentation - Loaf Volume/100g flour	883 cm ³
Specific Volume	6.3 cm ³ /g
Loaf height	106.0 mm

1 Data is reported on a 13.5% moisture basis for wheat

2 Data is reported on a 14.0% moisture basis for flour

Testing was conducted at the Grains Analytical Testing Laboratory in Guelph, Ontario, a joint venture between Grain Farmers of Ontario and SGS Canada. For a complete description of methodology used, please contact Paolo Santangelo, Commercial Manager at paolo.santangelo@sgs.com.