

# Ontario Hard Red Winter Wheat

## 2023 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 high quality winter and spring 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 and the north. 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.

### 2023 CANADA EASTERN HARD RED WINTER WHEAT

Quality data for Canada Eastern red wheat composites representing Ontario's hard red winter (HRW) wheat are shown in the table on page 2. Wheat protein is ideal for many flat bread, noodle, and pizza dough applications at 11.1 per cent for 2023. Gluten strength is good for baking all types of bread products as indicated by its performance in the bake test.

This season's HRW falling number (337 seconds) and flour amylograph peak viscosity values (515 BU) are slightly lower than last year but good. Milling yield from the 2023 composite samples is 70.6 per cent.

### 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, %	0.8	2	2.5
Shrunken, %	10	12	no limit
Broken, %	10	10	50
Total shrunken and 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 the following website:

<https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/04-wheat/primary-grade-determinants/cehrw-en.html>.

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Page 2

### CANADA EASTERN HARD RED WINTER WHEAT

Quality data for 2023 harvest survey grade 2 or better composite samples

#### WHEAT (13.5% M.B.)

Test Weight	79.9 kg/hL
Weight Per 1000 Kernels	36.3 g
Protein	11.1 %
Protein Loss on Milling	1.1 %
Falling Number	337 sec
Milling Yield - clean basis	70.6 %
Milling Yield - 0.50% ash basis	73.1 %

#### FLOUR (14% M.B.)

Protein	9.97 %
Amylograph Peak Viscosity	515 BU
Wet Gluten	23.1 %
Dry Gluten	8 %
Gluten Index	98.9 %
Ash Content	0.45 %
Colour, CIELAB L*	90.5
Colour, CIELAB a*	- 1.14
Colour, CIELAB b*	8.9
Starch Damage	25.1 UCD
Solvent retention capacity - water	64.1 %
Solvent retention capacity - lactic acid 5 %	153.1 %
Solvent retention capacity - sucrose 50 %	107.7 %
Solvent retention capacity - sodium carbonate 5 %	90.9 %

#### FARINOGRAPH

Absorption	57.9 %
Dough Development Time	2.2 min
Mixing Tolerance Index	29 BU
Stability	8.4 min

#### EXTENSOGRAPH (45/90/135 min)

Length (E)	20.2/15.6/15.0 cm
Height at 5 cm (R5)	385/374/384 BU
Max Height (Rmax)	693/527/541 BU
Area (A)	199/111/109 cm <sup>2</sup>

#### ALVEOGRAPH

P	76 mmH <sub>2</sub> O
Length (L)	108 mm
P/L	0.7
W	285 10 <sup>-4</sup> J

#### BAKING (REMIX-TO-PEAK BAKING TEST)

Bake mixing time	3.29 min
Bake mixing energy	5.78 W-h/kg dough
Loaf height	117.9 mm
Loaf volume	1098 cm <sup>3</sup>
Bread specific volume	7.7 cm <sup>3</sup> /g

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 Fraser Gilbert, Senior Business Development Manager at [Fraser.Gilbert@sgs.com](mailto:Fraser.Gilbert@sgs.com).

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