

Ontario Hard Red Spring 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 SPRING WHEAT

Quality data for Canada Eastern red spring composites representing Ontario's hard red spring (HRS) wheat are shown in the table on page 2. Wheat protein average of 13.5 per cent is ideal for high volume pan bread, noodles, flat bread, and wheat pasta applications. Gluten strength is good for baking all types of bread products as indicated by its performance in the bake test.

This season's HRS falling number (342 seconds) and flour amylograph peak viscosity values (415 BU) indicates good quality of milling wheat with low levels of sprouting and resulting enzyme activity and good expected shelf life for end products. Milling yield from the 2023 composite samples is 71.5 per cent.

CANADA EASTERN HARD RED SPRING WHEAT - EXPORT GRADE SPECIFICATIONS*

	No. 2 CERS	No. 3 CERS	CE FEED
Minimum test weight, kg/hL	72	69	65
Total foreign material including other cereal grains	1.5	3.5	10
Fusarium damage, %	1	1.5	5
Heated, %	0.8	2	2.5
Shrunken, %	1	12	no limit
Broken, %	10	10	50
Total shrunken & broken, %	11	13	no limit
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/cers-en.html>

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CANADA EASTERN HARD RED SPRING WHEAT

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

WHEAT (13.5% M.B.)

Test Weight	79.3 kg/hL
Weight Per 1000 Kernels	37.0 g
Protein	13.5 %
Protein Loss on Milling	1.48 %
Falling Number	342 sec
Milling Yield - clean basis	71.5 %
Milling Yield - 0.50 % ash basis	73 %

FLOUR (14% M.B.)

Protein	12 %
Amylograph Peak Viscosity	415 BU
Wet Gluten	30.9 %
Dry Gluten	10.5 %
Gluten Index	96.2 %
Ash Content	0.47 %
Colour, CIELAB L*	90.1
Colour, CIELAB a*	-1.28
Colour, CIELAB b*	11.7
Starch Damage	27.5 UCD
Solvent retention capacity - water	72.9 %
Solvent retention capacity - lactic acid 5 %	169.3 %
Solvent retention capacity - sucrose 50 %	109.9 %
Solvent retention capacity - sodium carbonate 5 %	96.9 %

FARINOGRAPH

Absorption	63 %
Dough Development Time	3.3 min
Mixing Tolerance Index	14 BU
Stability	10.5 min

EXTENSOGRAPH (45/90/135 min)

Length (E)	19.5/19.0/20.3 cm
Height at 5 cm (R5)	292/296/292 BU
Max Height (Rmax)	459/458/488 BU
Area (A)	123/90/132 cm ²

ALVEOGRAPH

P	83 mmH ₂ O
Length (L)	127 mm
P/L	0.65
W	346 10 ⁻⁴ J

BAKING (REMIX-TO-PEAK BAKING TEST)

Bake mixing time	3.36 min
Bake mixing energy	7.04 W-h/kg dough
Loaf height	115.1 mm
Loaf volume	1090 cm ³
Bread specific volume	7.4 cm ³ /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.

WHEN YOU NEED TO BE SURE

SGS