Canada Western Red Spring (CWRS) wheat
Harvest quality data for No. 1 CWRS, eastern prairie aggregates[1]

Quality parameter [2]	2024	2023
Wheat		
Test weight, kg/hL	82	82
Weight per 1000 kernels, g	35.1	34.6
Protein content, %	13.8	13.8
Protein content, % (dry matter basis)	15.9	16.0
Ash content, %	1.54	1.39
Falling Number, seconds	399	382
Milling flour yield - Bühler laboratory mill		
Clean wheat basis, %	76.5	76.4
Flour, extraction (%) for analysis	**74**	**74**
Protein content, %	12.9	13.0
Protein loss, %	0.9	0.8
Wet gluten content, %	35.3	33.7
Gluten index, %	96.3	98.1
Ash content, %	0.44	0.42
Dough sheet brightness (L*) at 2h [3]	76.4	77.2
Dough sheet redness (a*) at 2h [3]	2.0	1.9
Dough sheet yellowness (b*) at 2h [3]	25.8	25.9
Starch damage, %	8.1	8.2
Amylograph peak viscosity, BU	697	552
Farinogram, 50 g bowl		
Absorption, %	64.5	64.3
Dough development time, minutes	6.5	7.2
Stability, minutes	10.0	11.4
Mixing tolerance index, BU	25	26
Farinogram, 300 g bowl [4]		
Absorption, %	65.4	65.2
Dough development time, minutes	6.9	6.2
Stability, minutes	14.1	13.3
Mixing tolerance index, BU	19	20
Extensogram (135 minutes), standard method [5]		
Maximum resistance, BU	609	696
Extensibility (length), cm	20.2	20.2
Area, cm^2	154	180
Extensogram (90 minutes), pin mixer method [6]		
Maximum resistance, BU	561	625
Extensibility (length), cm	19.0	16.1
Area, cm^2	131	122
Alveogram		
P (maximum over pressure), mm H_2O	116	115
L (length), mm	120	126
P/L	0.97	0.91
W (deformation energy), 10^{-4} joules	469	491
Ie (elasticity index), %	62.9	64.2

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Quality parameter [2]	2024	2023
Baking (Canadian short process)		
Absorption, %	68	68
Mixing time, minutes	5.4	5.6
Mixing energy, Wh/kg	12.0	14.2
Loaf volume, cm^3/100 g flour	947	944

[1] No. 1 CWRS samples were obtained from the Canadian Grain Commission's Harvest Sample Program. Eastern prairies aggregate region includes eastern Saskatchewan and Manitoba (regions 1-4, 6 on crop region map).

[2] Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour, except Alveogram results which are reported on a 15% moisture basis. For more information refer to Methods and tests used by the Canadian Grain Commission to measure the quality of wheat.

[3] Colour measured with Minolta CR-410 with D65 illuminant. For more information refer to our colour – water dough sheet method.

[4] An additional test reported on starting in 2022. Farinograph results were historically generated with only a 50 g bowl.

[5] The Farinograph used to mix dough for the Extensograph was replaced with a new model in 2024. For comparison purposes, the 2023 aggregate samples, which had been stored in freezer, were retested with the 2024 aggregate samples after mixing with the new Farinograph model.

[6] An additional test reported on in 2024. The fully developed dough was prepared using a Swanson-type pin mixer to 10% past peak time with 1% salt (flour weight basis) and Farinograph absorption of plus 4%. For more information refer to our Extensogram - pin mixer method.

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Farinogram and Extensogram Curves

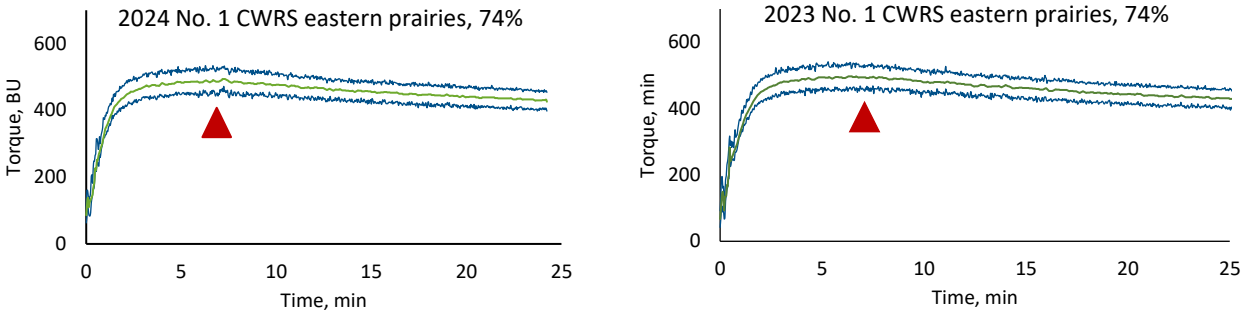

Figure 1. Examples of Farinograms (50 g bowl) generated from flour with extraction rates of 74% for eastern prairies aggregate samples of No. 1 CWRS from the 2023 and 2024 crop years. Minimum and maximum torque values (blue), mean torque values (green) and dough development time (red arrow) are shown.

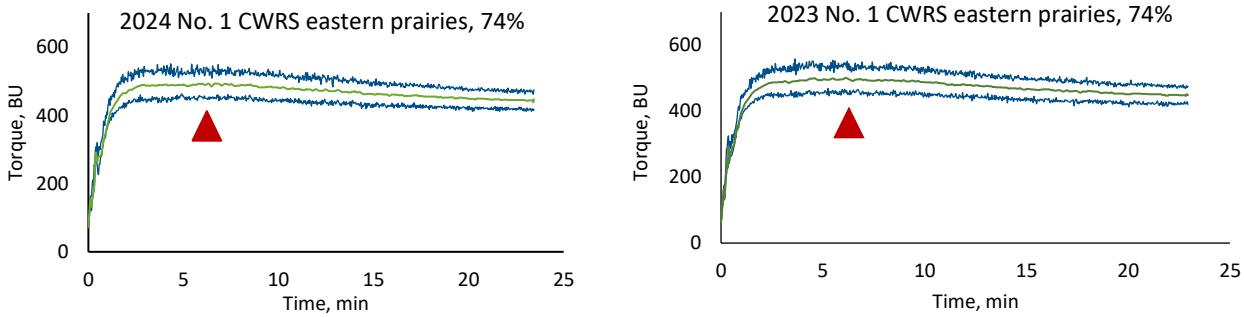

Figure 2. Examples of Farinograms (300 g bowl) generated from flour with extraction rates of 74% for eastern prairies aggregate samples of No. 1 CWRS from the 2023 and 2024 crop years. Minimum and maximum torque values (blue), mean torque values (green) and dough development time (red arrow) are shown.

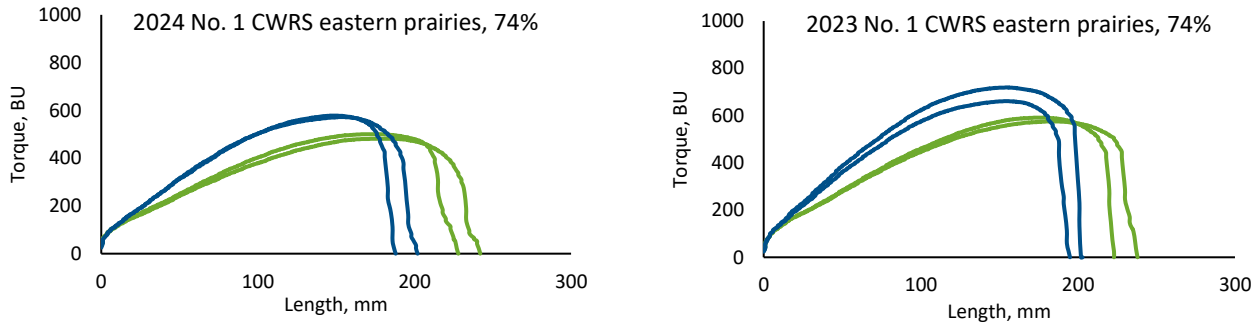

Figure 3. Examples of Extensograms at 45 minutes (green) and 135 minutes (blue) generated from flour with extraction rates of 74% for eastern prairies aggregate samples of No. 1 CWRS from the 2023 and 2024 crop years.