

CWRS Canada Western Red Spring

The most widely grown wheat class in Western Canada, CWRS is regarded for its superior milling and baking quality. This hard wheat has high protein content and high protein quality which means it can improve the quality of a blend if milled with lower-quality wheat.

Top Five CWRS Varieties Grown in 2025

- 1 AAC Brandon
- 2 AAC Wheatland
- 3 AAC Starbuck
- 4 AAC Viewfield
- 5 AAC Hockley

2025 EXECUTIVE SUMMARY

PRODUCTION

(5-year average, 2020-2024)

20.1 million tonnes

% of TOTAL WHEAT GROWN IN CANADA

62%



Advice from an Expert

CWRS from the 2025 crop year has high protein content with a good balance of gluten strength and extensibility. It remains an excellent choice as an improver wheat in blending situations.



Grading Factors

A very high proportion of the 2025 CWRS crop graded No. 1 or No. 2.



Protein

High protein content that is similar to last year.



Milling Quality

CWRS from the 2025 crop year has high test weight and thousand kernel weight, and lower flour ash content compared to last year leading to good milling performance.

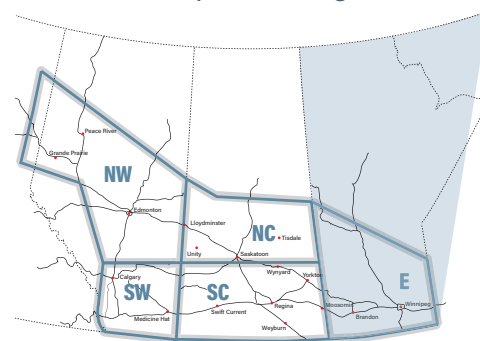


Application Performance

CWRS from the 2025 crop year produced pan bread with very good loaf volume. Noodles had good colour and texture.

FIGURE 1

2025 Western Canada CWRS Composite Regions



WESTERN COMPOSITE

No. 1 CWRS

Canada Western Red Spring

Quality Parameter ^a	Western Composite ^b		
	2025	2024	5 yr avg.
Wheat			
Test Weight, kg/hL	85	83	83
Weight Per 1000 Kernels, g	37.2	33.2	34.3
Protein Content, %	13.8	14.0	14.3
Protein Content, % (dry matter basis)	16.0	16.2	16.5
Wet Gluten Content, %	32.4	33.4	34.1
Gluten Index, %	82	88	84
Ash Content, %	1.45	1.50	1.44
Falling Number, s	403	409	398
Particle Size Index ^c , %	54	54	-
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	74.7	75.5	75.1
0.50% Ash Basis, %	78.7	77.5	78.4

^a Data are reported on a 13.5% moisture basis.

^b Refer to crop region map (Figure 1). Western composite = NW, SW, NC, SC regions (non-shaded area); Eastern composite = E region (shaded area); Prairie composite = all regions.

^c Unable to calculate 5-year average for particle size index due to change in method.

EASTERN COMPOSITE

No. 1 CWRS

Canada Western Red Spring

Quality Parameter ^a	Eastern Composite ^b		
	2025	2024	5 yr avg.
Wheat			
Test Weight, kg/hL	84	84	83
Weight Per 1000 Kernels, g	37.9	33.8	34.9
Protein Content, %	14.0	14.1	14.4
Protein Content, % (dry matter basis)	16.2	16.3	16.6
Wet Gluten Content, %	33.2	34.2	34.4
Gluten Index, %	84	83	84
Ash Content, %	1.46	1.59	1.50
Falling Number, s	387	392	379
Particle Size Index ^c , %	56	54	-
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	76.2	75.7	75.9
0.50% Ash Basis, %	79.7	77.2	78.2

PRAIRIE COMPOSITE

No. 2 CWRS

Canada Western Red Spring

Quality Parameter ^a	Prairie Composite ^b		
	2025	2024	5 yr avg.
Wheat			
Test Weight, kg/hL	82	81	81
Weight Per 1000 Kernels, g	36.9	33.0	34.9
Protein Content, %	13.8	14.0	14.0
Protein Content, % (dry matter basis)	16.0	16.2	16.2
Wet Gluten Content, %	31.5	32.8	32.3
Gluten Index, %	90	90	89
Ash Content, %	1.43	1.58	1.47
Falling Number, s	374	384	358
Particle Size Index ^c , %	56	56	-
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	75.4	75.2	75.5
0.50% Ash Basis, %	78.4	77.7	78.5

Harvest assessment composites represent grain available for export and were prepared from samples received up to October 16, 2025. Composites were graded according to Export Grade Determination Tables in the Official Grain Grading Guide (<https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/>). Milling, analytical and end-product analysis was conducted by Cereals Canada following the Methods of Analysis on Cereals Canada's website (<https://cerealscanada.ca/analytical-methods/>).

Flour ^a	2025			2024			5-Year Average		
Extraction	Straight Grade 74.7%	74%	60%	Straight Grade 75.5%	74%	60%	Straight Grade 75.1%	74%	60%
Protein Content, %	13.1	13.1	12.6	13.3	13.2	12.6	13.6	13.5	13.0
Protein Loss, %	0.7	0.7	1.2	0.7	0.8	1.4	0.7	0.8	1.3
Wet Gluten Content, %	35.7	34.5	34.5	35.0	35.0	33.9	36.4	36.2	35.0
Gluten Index, %	97	97	96	98	97	99	96	95	97
Ash Content, %	0.42	0.42	0.37	0.46	0.44	0.39	0.43	0.42	0.38
Colour, L* (wet)	85.2	85.3	85.8	84.7	85.1	85.5	84.8	85.1	85.6
Starch Damage, UCD	24.0	24.2	24.2	24.0	24.5	24.5	24.2	24.3	24.1
Amylograph Peak Viscosity, BU	616	630	690	690	689	728	613	634	682
Farinograph									
Absorption, %	63.0	63.0	63.0	61.8	62.0	61.8	63.6	63.6	63.2
Dough Development Time, min	7.2	7.8	11.7	8.5	7.7	9.6	8.1	8.2	10.5
Stability, min	19.9	20.0	43.7	24.0	24.7	47.7	24.5	26.6	44.7
Mixing Tolerance Index, BU	13	15	11	12	14	6	15	13	7
Extensograph (135 min)									
Max. Resistance (Rmax), BU	680	685	830	725	780	818	683	726	816
Extensibility (length), cm	21.0	20.6	18.9	21.4	21.2	18.7	21.0	20.9	18.6
Area, cm ²	174	175	190	195	210	183	177	188	184
Alveograph									
P (height x 1.1), mm	106	109	122	100	102	122	109	113	124
L (length), mm	132	118	109	209	214	169	158	155	141
P/L	0.80	0.92	1.12	0.48	0.48	0.72	0.73	0.77	0.90
W, 10 ⁻⁴ J	458	433	453	616	643	648	552	572	584
Ie, %	62.5	62.5	61.6	64.7	65.7	65.6	66.8	66.7	66.8
Baking (No Time Dough)									
Absorption, %	66	-	-	65	-	-	66	-	-
Mixing Time, min	6.1	-	-	7.6	-	-	7.1	-	-
Specific Volume, cm ³ /g	7.1	-	-	7.3	-	-	7.5	-	-
Total Bread Score (out of 10)	9.1	-	-	9.5	-	-	9.2	-	-
Crumb Colour, L*	80.7	-	-	80.5	-	-	80.4	-	-
Baking (Sponge & Dough)									
Absorption, %	65	-	66	64	-	65	66	-	66
Mixing Time, min	7.9	-	7.9	7.9	-	8.5	8.2	-	8.6
Specific Volume, cm ³ /g	7.2	-	7.1	7.1	-	6.9	7.2	-	7.1
Total Bread Score (out of 10)	9.5	-	9.2	9.4	-	9.5	9.4	-	9.6
Crumb Colour, L*	82.2	-	82.7	82.4	-	82.7	81.7	-	82.7
Noodles (Fresh Yellow Alkaline)									
Colour (3h / 24h) L*	-	75.3 / 69.8	76.9 / 72.5	-	75.2 / 70.4	75.7 / 71.6	-	74.1 / 69.2	75.3 / 71.1
a*	-	-0.10 / 0.41	-0.27 / 0.12	-	0.06 / 0.61	-0.09 / 0.32	-	0.11 / 0.64	-0.08 / 0.37
b*	-	26.2 / 25.0	26.7 / 25.8	-	25.3 / 25.2	26.2 / 25.3	-	25.8 / 24.7	26.1 / 25.0
MCS (3.5 min.) ^c , g/mm ²	-	36.6	34.4	-	39.8	35.6	-	37.9	36.1
Noodles (Fresh White Salted)									
Colour (3h / 24h) L*	-	76.9 / 74.0	78.0 / 74.7	-	75.7 / 72.8	76.9 / 74.4	-	75.5 / 72.3	76.5 / 73.6
a*	-	1.57 / 1.97	1.29 / 1.52	-	1.59 / 2.00	1.28 / 1.53	-	1.71 / 2.14	1.41 / 1.66
b*	-	25.9 / 25.6	26.4 / 26.3	-	25.5 / 24.8	25.1 / 24.8	-	25.1 / 24.6	25.3 / 24.9
MCS (3.5 min.) ^c , g/mm ²	-	28.1	26.9	-	29.0	26.3	-	28.2	26.5

^a Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.

^b Refer to crop region map (Figure 1, non-shaded area).

^c Maximum cutting stress of noodles cooked to 3.5 min.

Flour ^a	2025		2024		5-Year Average	
	Straight Grade 76.2%	74%	Straight Grade 75.7%	74%	Straight Grade 75.9%	74%
Extraction						
Protein Content, %	13.2	13.0	13.1	13.0	13.5	13.4
Protein Loss, %	0.8	1.0	1.0	1.1	0.9	1.0
Wet Gluten Content, %	34.8	34.7	34.9	34.6	35.6	35.5
Gluten Index, %	98	97	95	99	96	97
Ash Content, %	0.43	0.40	0.47	0.44	0.45	0.42
Colour, L* (wet)	85.1	85.5	84.6	85.0	84.7	85.1
Starch Damage, UCD	23.0	23.1	23.3	23.6	23.5	23.4
Amylograph Peak Viscosity, BU	663	632	644	691	598	603
Farinograph						
Absorption, %	62.2	61.8	61.8	62.1	62.9	62.7
Dough Development Time, min	8.2	8.6	6.9	8.1	8.0	8.0
Stability, min	18.2	23.1	18.0	18.2	21.8	24.4
Mixing Tolerance Index, BU	16	13	9	16	18	16
Extensograph (135 min)						
Max. Resistance (Rmax), BU	709	775	608	715	639	717
Extensibility (length), cm	21.9	21.0	21.5	20.5	22.2	21.4
Area, cm ²	197	201	164	182	178	188
Alveograph						
P (height x 1.1), mm	102	103	91	95	99	103
L (length), mm	120	122	218	197	167	158
P/L	0.85	0.84	0.42	0.48	0.63	0.68
W, 10 ⁻⁴ J	431	443	577	575	530	539
Ie, %	65.6	65.2	64.7	65.6	66.8	67.5
Baking (No Time Dough)						
Absorption, %	66	-	65	-	66	-
Mixing Time, min	6.6	-	6.9	-	6.9	-
Specific Volume, cm ³ /g	8.1	-	7.8	-	7.8	-
Total Bread Score (out of 10)	9.7	-	9.8	-	9.5	-
Crumb Colour, L*	80.1	-	80.4	-	79.8	-
Baking (Sponge & Dough)						
Absorption, %	65	-	64	-	65	-
Mixing Time, min	8.0	-	7.8	-	8.0	-
Specific Volume, cm ³ /g	7.1	-	7.1	-	7.3	-
Total Bread Score (out of 10)	9.1	-	9.4	-	9.4	-
Crumb Colour, L*	82.0	-	80.8	-	81.2	-
Noodles (Fresh Yellow Alkaline)						
Colour (3h / 24h) L*	-	75.4 / 71.3	-	74.2 / 70.4	-	73.7 / 69.5
a*	-	0.15 / 0.43	-	0.35 / 0.68	-	0.29 / 0.64
b*	-	26.0 / 25.4	-	25.3 / 24.8	-	25.6 / 24.7
MCS (3.5 min.) ^c , g/mm ²	-	34.7	-	34.6	-	35.2
Noodles (Fresh White Salted)						
Colour (3h / 24h) L*	-	76.6 / 72.8	-	76.7 / 73.3	-	75.5 / 72.3
a*	-	1.57 / 1.89	-	1.66 / 2.15	-	1.82 / 2.20
b*	-	25.3 / 24.9	-	25.0 / 24.4	-	24.7 / 24.2
MCS (3.5 min.) ^c , g/mm ²	-	26.8	-	25.9	-	26.1

^a Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.

^b Refer to crop region map (Figure 1, shaded area).

^c Maximum cutting stress of noodles cooked to 3.5 min.

No. 2 CWRS Prairie Composite^b

Flour ^a	2025		2024		5-Year Average	
Extraction	Straight Grade 75.4%	74%	Straight Grade 75.2%	74%	Straight Grade 75.5%	74% ^d
Protein Content, %	12.9	12.9	13.0	13.1	13.1	13.1
Protein Loss, %	0.9	0.9	1.0	0.9	0.9	0.9
Wet Gluten Content, %	33.9	34.1	34.1	34.2	34.5	34.9
Gluten Index, %	98	97	100	100	98	98
Ash Content, %	0.44	0.40	0.45	0.43	0.44	0.41
Colour, L* (wet)	84.9	85.4	84.9	84.6	84.7	84.9
Starch Damage, UCD	22.6	22.5	23.4	23.4	23.5	22.9
Amylograph Peak Viscosity, BU	438	480	675	676	469	497
Farinograph						
Absorption, %	61.7	61.5	61.3	61.5	62.3	61.9
Dough Development Time, min	7.8	7.5	9.4	8.7	7.4	8.0
Stability, min	16.5	17.3	35.8	41.7	19.3	23.9
Mixing Tolerance Index, BU	18	18	14	6	17	15
Extensograph (135 min)						
Max. Resistance (Rmax), BU	705	714	782	826	662	777
Extensibility (length), cm	21.0	21.0	19.3	19.2	21.8	20.4
Area, cm ²	185	190	185	201	180	197
Alveograph						
P (height x 1.1), mm	100	99	95	97	100	103
L (length), mm	139	130	184	188	154	154
P/L	0.72	0.76	0.52	0.52	0.69	0.68
W, 10 ⁻⁴ J	460	441	554	575	506	528
Ie, %	64.7	64.9	66.1	65.9	67.1	67.1
Baking (No Time Dough)						
Absorption, %	66	-	65	-	66	-
Mixing Time, min	6.1	-	7.6	-	6.9	-
Specific Volume, cm ³ /g	7.6	-	7.4	-	7.7	-
Total Bread Score (out of 10)	9.1	-	9.1	-	9.2	-
Crumb Colour, L*	80.1	-	80.6	-	80.2	-
Baking (Sponge & Dough)						
Absorption, %	65	-	64	-	65	-
Mixing Time, min	7.9	-	7.8	-	7.8	-
Specific Volume, cm ³ /g	7.0	-	7.0	-	7.3	-
Total Bread Score (out of 10)	9.4	-	9.5	-	9.5	-
Crumb Colour, L*	82.1	-	81.7	-	81.6	-
Noodles (Fresh Yellow Alkaline)						
Colour (3h / 24h) L*	-	73.5 / 69.0	-	74.1 / 70.1	-	73.5 / 69.3
a*	-	0.19 / 0.54	-	0.17 / 0.59	-	0.16 / 0.61
b*	-	25.3 / 24.5	-	25.4 / 24.5	-	25.0 / 24.2
MCS (3.5 min.) ^c , g/mm ²	-	36.0	-	37.9	-	36.5
Noodles (Fresh White Salted)						
Colour (3h / 24h) L*	-	75.6 / 72.4	-	76.7 / 73.8	-	75.2 / 72.4
a*	-	1.71 / 2.19	-	1.58 / 2.00	-	1.66 / 2.02
b*	-	24.5 / 24.2	-	24.8 / 24.4	-	24.2 / 23.7
MCS (3.5 min.) ^c , g/mm ²	-	26.4	-	28.7	-	26.7

^a Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.

^b Refer to crop region map (Figure 1, all regions).

^c Maximum cutting stress of noodles cooked to 3.5 min.

^d Values represent 4-year average for No. 2 CWRS 74% extraction.