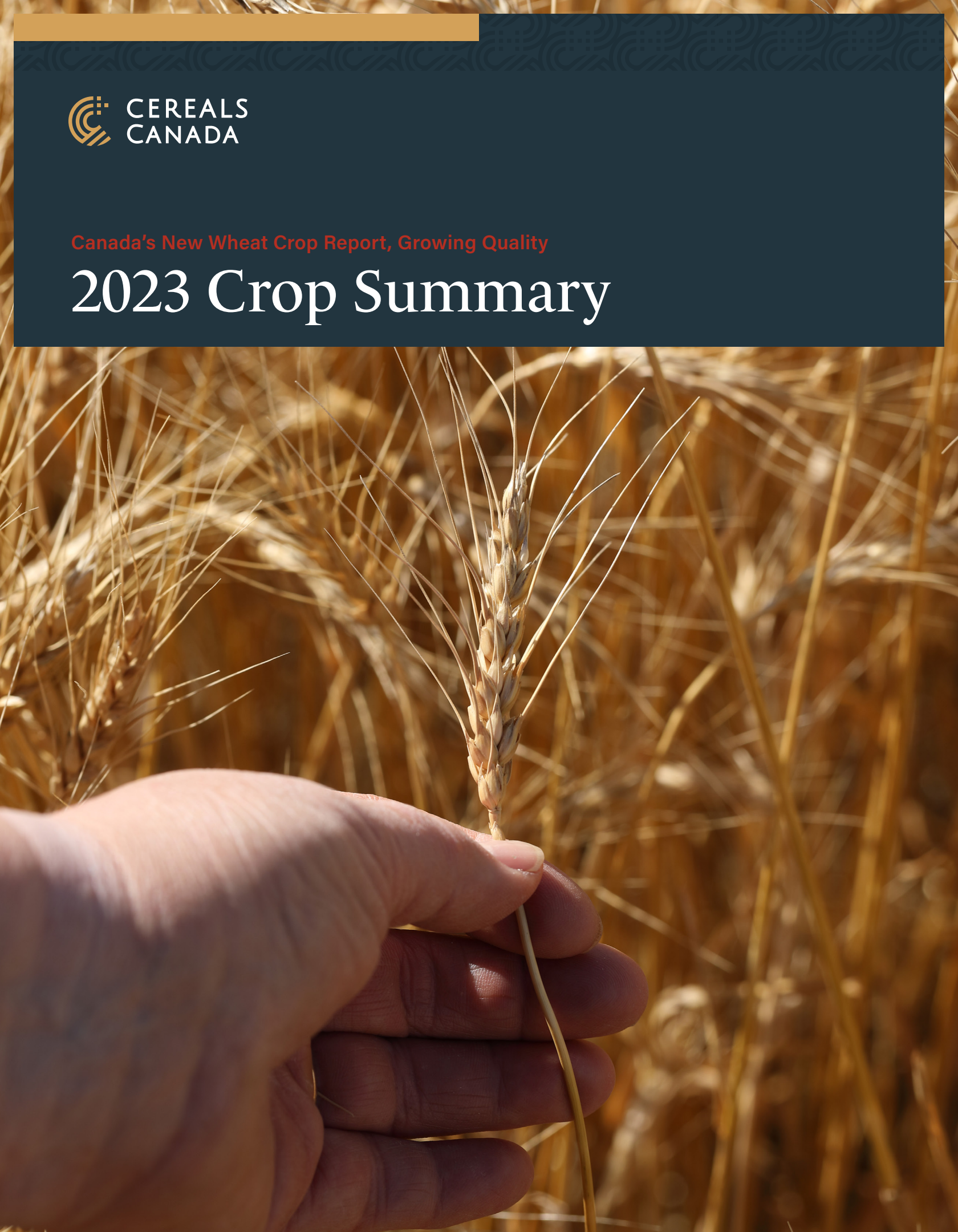
CEREALS CANADA

Canada's New Wheat Crop Report, Growing Quality

2023 Crop Summary



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 2023

1. AAC Brandon
2. AAC Viewfield
3. AAC Wheatland
4. AAC Starbuck
5. CDC Landmark

2023 EXECUTIVE SUMMARY

PRODUCTION
(5-year average, 2018-2022)

19.9 million tonnes

TOTAL WHEAT GROWN IN CANADA

63%

Protein

13.8% protein content, which is similar to the 10-year average of 13.7%.

Advice from an Expert

Sound wheat with a balance of gluten strength and extensibility.

Milling Quality

Sound wheat with good test weight and low ash content.

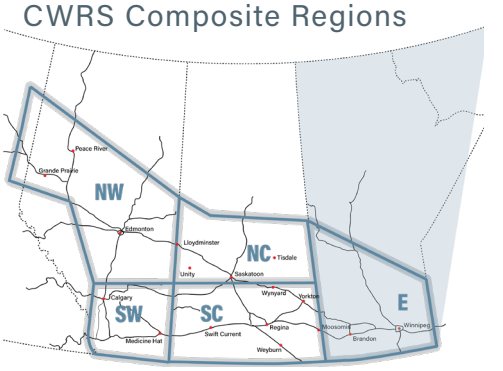
Grading Factors

97% of the 2023 CWRS crop has graded No. 1 and No. 2.

Application Performance

Baking: Very good bread quality. Noodles: Good colour retention and texture.

FIGURE 1
2023 Western Canadian CWRS Composite Regions



WESTERN COMPOSITE

No. 1 CWRS
Canada Western Red Spring

Quality Parameter [a]	Western Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	82.4	83.6
Weight Per 1000 Kernels, g	34.0	33.6
Protein Content, %	14.3	13.9
Protein Content, % (dry matter basis)	16.5	16.0
Ash Content, %	1.36	1.52
Falling Number, s	399	423
Particle Size Index, %	54	49
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	75.1	75.2
0.50% Ash Basis, %	78.6	78.2

EASTERN COMPOSITE

No. 1 CWRS
Canada Western Red Spring

Quality Parameter [a]	Eastern Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	82.9	83.4
Weight Per 1000 Kernels, g	37.2	33.0
Protein Content, %	14.1	14.4
Protein Content, % (dry matter basis)	16.3	16.6
Ash Content, %	1.41	1.60
Falling Number, s	384	393
Particle Size Index, %	53	51
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	75.1	76.3
0.50% Ash Basis, %	77.6	77.3

PRAIRIE COMPOSITE

No. 2 CWRS
Canada Western Red Spring

Quality Parameter [a]	Prairie Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	81.8	81.2
Weight Per 1000 Kernels, g	36.1	34.3
Protein Content, %	13.5	13.8
Protein Content, % (dry matter basis)	15.6	16.0
Ash Content, %	1.36	1.57
Falling Number, s	372	352
Particle Size Index, %	52	53
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	75.8	75.2
0.50% Ash Basis, %	79.8	77.2

[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.

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WESTERN COMPOSITE

No. 1 CWRS

Canada Western Red Spring

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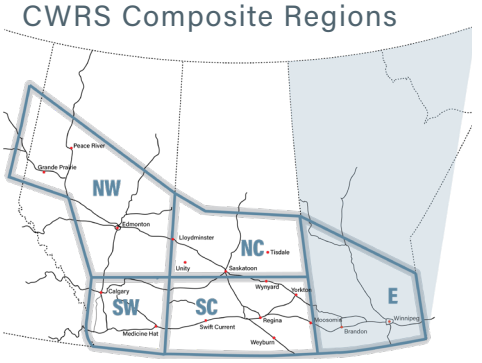
FIGURE 1

2023 Western Canadian CWRS Composite Regions



Quality Parameter [a]	Western Composite [b]			Western Composite [b]		
Flour	2023			2022		
Extraction	Straight Grade 75.1%	74%	60%	Straight Grade 75.2%	74%	60%
Protein Content, %	13.6	13.5	13.1	13.2	13.1	12.7
Protein Loss, %	0.7	0.8	1.1	0.7	0.8	1.2
Wet Gluten Content, %	36.8	36.9	35.5	36.5	36.5	33.5
Gluten Index, %	95	95	97	93	91	97
Ash Content, %	0.43	0.43	0.38	0.44	0.42	0.39
Colour, L*	84.6	85.1	85.4	85.1	85.0	85.7
Starch Damage, UCD	24.2	24.2	23.5	25.3	25.2	24.6
Amylograph Peak Viscosity, BU	584	597	693	710	764	801
Farinograph						
Absorption, %	62.4	62.2	61.8	65.2	65.2	64.4
Dough Development Time (DDT), min	8.4	7.9	10.9	7.5	8.3	9.9
Stability, min	16.7	22.5	48.1	15.2	16.9	35.4
Mixing Tolerance Index (MTI), BU	21	14	9	18	14	8
Extensograph (135 min)						
Maximum Resistance (Rmax), BU	695	801	880	563	632	737
Extensibility (length), cm	21.6	21.0	18.1	21.7	20.0	18.9
Area, cm^2	187	205	190	151	156	172
Alveograph						
P (height x 1.1), mm	108	114	121	118	116	124
L (length), mm	181	169	160	152	143	141
P/L	0.60	0.67	0.76	0.78	0.81	0.88
W, 10^{-4} J	594	607	611	590	561	585
Ie, %	64.7	66.1	65.7	69.0	68.7	68.3
Baking (No Time Dough)						
Absorption, %	64	n/a	n/a	69	n/a	n/a
Mixing Time, min	6.4	n/a	n/a	6.3	n/a	n/a
Specific Volume, cm^3/g	7.7	n/a	n/a	7.9	n/a	n/a
Total Bread Score (out of 10)	9.3	n/a	n/a	9.1	n/a	n/a
Baking (Sponge & Dough)						
Absorption, %	63	n/a	64	68	n/a	67
Mixing Time, min	7.6	n/a	8.5	8.4	n/a	8.6
Specific Volume, cm^3/g	7.1	n/a	6.9	7.2	n/a	7.1
Total Bread Score (out of 10)	9.2	n/a	9.6	9.5	n/a	9.9
Noodles (Fresh Yellow Alkaline)						
Colour (3h / 24h) L*	n/a	72.8 / 68.6	74.6 / 70.2	n/a	74.2 / 69.3	74.8 / 71.0
a*	n/a	0.09 / 0.69	-0.14 / 0.39	n/a	0.15 / 0.69	-0.10 / 0.44
b*	n/a	25.9 / 24.9	26.0 / 25.0	n/a	26.5 / 24.9	26.3 / 25.2
Cooked Noodle Max. Cutting Stress g/mm^2						
Cook Time - 3.5 min	n/a	38.5	38.7	n/a	37.1	36.3
Noodles (Fresh White Salted)						
Colour (3h / 24h) L*	n/a	74.9 / 71.8	75.2 / 72.9	n/a	75.7 / 72.2	76.9 / 73.8
a*	n/a	1.66 / 2.16	1.36 / 1.63	n/a	1.73 / 2.16	1.43 / 1.66
b*	n/a	25.2 / 24.7	25.4 / 24.9	n/a	25.3 / 24.9	25.5 / 25.2
Cooked Noodle Max. Cutting Stress g/mm^2						
Cook Time - 3.5 min	n/a	28.3	28.0	n/a	28.5	26.1

[a] Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour except Alveograph is on a 15.0% moisture basis and starch damage is as is.

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

n/a - Not available (testing will not be conducted).

Harvest assessment composites represent grain available for export. Milling, analytical, and end-product analysis conducted by Cereals Canada following the Methods of Analysis on Cereals Canada's website (https://cerealscanada.ca/analytical-methods/).

2023 CWRS Quality Assessment

EASTERN COMPOSITE

No. 1 CWRS
Canada Western Red Spring

Quality Parameter [a]	Eastern Composite [b]	
Wheat	**2023**	**2022**
Test Weight, kg/hL	82.9	83.4
Weight Per 1000 Kernels, g	37.2	33.0
Protein Content, %	14.1	14.4
Protein Content, % (dry matter basis)	16.3	16.6
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Falling Number, s	384	393
Particle Size Index, %	53	51
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	75.1	76.3
0.50% Ash Basis, %	77.6	77.3

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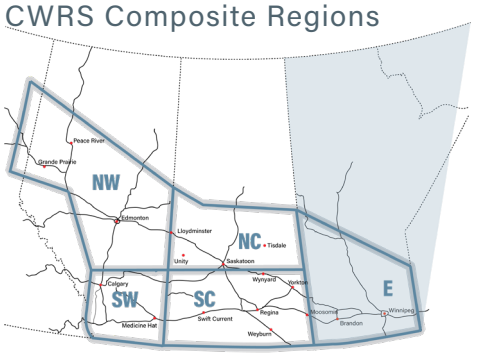
2023 Western Canadian CWRS Composite Regions



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Quality Parameter [a]	Eastern Composite [b]		Eastern Composite [b]	
Flour	**2023**		**2022**	
Extraction	Straight Grade 75.1%	74%	Straight Grade 76.3%	74%
Protein Content, %	13.3	13.3	13.5	13.3
Protein Loss, %	0.8	0.8	0.9	1.1
Wet Gluten Content, %	33.6	34.7	36.3	36.0
Gluten Index, %	96	99	95	95
Ash Content, %	0.45	0.45	0.48	0.43
Colour, L*	84.5	84.7	84.7	85.2
Starch Damage, UCD	23.8	23.3	24.5	24.3
Amylograph Peak Viscosity, BU	562	540	593	592
Farinograph				
Absorption, %	62.0	61.9	64.9	64.5
Dough Development Time (DDT), min	8.5	7.7	7.4	7.1
Stability, min	17.5	17.3	11.6	13.5
Mixing Tolerance Index (MTI), BU	20	15	27	22
Extensograph (135 min)				
Maximum Resistance (Rmax), BU	746	790	523	583
Extensibility (length), cm	20.6	20.3	23.0	22.6
Area, cm^2	190	196	152	167
Alveograph				
P (height x 1.1), mm	101	111	97	102
L (length), mm	183	157	169	178
P/L	0.55	0.71	0.57	0.57
W, 10^{-4} J	555	554	507	572
Ie, %	63.8	65.3	66.9	68.5
Baking (No Time Dough)				
Absorption, %	65	n/a	68	n/a
Mixing Time, min	6.6	n/a	6.6	n/a
Specific Volume, cm^3/g	7.5	n/a	7.5	n/a
Total Bread Score (out of 10)	9.2	n/a	9.4	n/a
Baking (Sponge & Dough)				
Absorption, %	64	n/a	67	n/a
Mixing Time, min	7.1	n/a	7.7	n/a
Specific Volume, cm^3/g	7.2	n/a	7.4	n/a
Total Bread Score (out of 10)	9.4	n/a	9.7	n/a
Noodles (Fresh Yellow Alkaline)				
Colour (3h / 24h) L*	n/a	72.0 / 68.0	n/a	72.7 / 69.0
a*	n/a	0.21 / 0.67	n/a	0.45 / 0.79
b*	n/a	25.7 / 24.8	n/a	26.0 / 25.0
Cooked Noodle Max. Cutting Stress g/mm^2				
Cook Time - 3.5 min	n/a	35.0	n/a	35.0
Noodles (Fresh White Salted)				
Colour (3h / 24h) L*	n/a	74.3 / 71.6	n/a	74.8 / 71.7
a*	n/a	1.72 / 2.15	n/a	2.06 / 2.47
b*	n/a	24.7 / 24.2	n/a	24.9 / 24.4
Cooked Noodle Max. Cutting Stress g/mm^2				
Cook Time - 3.5 min	n/a	25.1	n/a	26.3

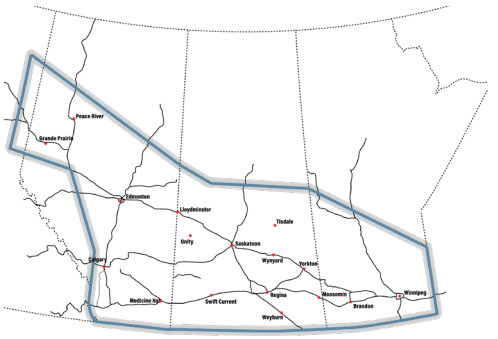
PRAIRIE COMPOSITE

No. 2 CWRS
Canada Western Red Spring

Quality Parameter [a]	Prairie Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	81.8	81.2
Weight Per 1000 Kernels, g	36.1	34.3
Protein Content, %	13.5	13.8
Protein Content, % (dry matter basis)	15.6	16.0
Ash Content, %	1.36	1.57
Falling Number, s	372	352
Particle Size Index, %	52	53
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	75.8	75.2
0.50% Ash Basis, %	79.8	77.2

FIGURE 2

2023 Western Canadian Prairie Composite Region



[a] Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour except Alveograph is on a 15.0% moisture basis and starch damage is as is.

[b] Refer to crop region map (Figure 2)

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Harvest assessment composites represent grain available for export. Milling, analytical, and end-product analysis conducted by Cereals Canada following the Methods of Analysis on Cereals Canada's website (https://cerealscanada.ca/analytical-methods/).

Quality Parameter [a]	Prairie Composite [b]		Prairie Composite [b]
Flour	2023		2022
Extraction	Straight Grade 75.8%	74%	Straight Grade 75.2%
Protein Content, %	12.8	12.7	12.9
Protein Loss, %	0.7	0.8	0.9
Wet Gluten Content, %	32.7	34.0	35.0
Gluten Index, %	98	98	98
Ash Content, %	0.42	0.41	0.46
Colour, L*	84.5	84.8	85.0
Starch Damage, UCD	23.5	23.3	24.6
Amylograph Peak Viscosity, BU	475	497	407
Farinograph			
Absorption, %	61.3	61.0	63.4
Dough Development Time (DDT), min	6.5	8.6	6.3
Stability, min	14.6	17.1	14.0
Mixing Tolerance Index (MTI), BU	18	21	17
Extensograph (135 min)			
Maximum Resistance (Rmax), BU	626	879	612
Extensibility (length), cm	23.4	19.9	21.9
Area, cm^2	187	215	171
Alveograph			
P (height x 1.1), mm	102	111	98
L (length), mm	176	161	169
P/L	0.58	0.69	0.58
W, 10^{-4} J	550	570	536
Ie, %	64.3	66.0	67.9
Baking (No Time Dough)			
Absorption, %	65	n/a	67
Mixing Time, min	6.7	n/a	6.6
Specific Volume, cm^3/g	7.9	n/a	7.7
Total Bread Score (out of 10)	9.2	n/a	9.5
Baking (Sponge & Dough)			
Absorption, %	64	n/a	66
Mixing Time, min	6.5	n/a	8.1
Specific Volume, cm^3/g	7.2	n/a	7.7
Total Bread Score (out of 10)	9.5	n/a	9.6
Noodles (Fresh Yellow Alkaline)			
Colour (3h / 24h) L*	n/a	73.3 / 69.4	n/a
a*	n/a	-0.05 / 0.56	n/a
b*	n/a	24.9 / 24.4	n/a
Cooked Noodle Max. Cutting Stress g/mm^2			
Cook Time - 3.5 min	n/a	36.4	n/a
Noodles (Fresh White Salted)			
Colour (3h / 24h) L*	n/a	74.4 / 71.7	n/a
a*	n/a	1.45 / 1.81	n/a
b*	n/a	24.2 / 23.3	n/a
Cooked Noodle Max. Cutting Stress g/mm^2			
Cook Time - 3.5 min	n/a	26.7	n/a

CWAD Canada Western Amber Durum

Canada is the world's leading exporter of durum wheat. CWAD is recognized for its high protein content and semolina yield. Development of new CWAD varieties has resulted in improvements in yellow colour and gluten strength.

Top Five CWAD Varieties Grown in 2023

1. Transcend
2. CDC Precision
3. AAC Stronghold
4. CDC Defy
5. CDC Alloy

2023 EXECUTIVE SUMMARY

PRODUCTION
(5-year average, 2018-2022)

5.2 million tonnes

TOTAL WHEAT GROWN IN CANADA

17%

Advice from an Expert

Semolina milled from the 2023 CWAD crop has high yellow pigment content, low ash content and good processing quality.

Grading Factors

83% of the 2023 CWAD crop has graded No. 1 and No. 2.

Protein

Protein content remains high at 14.9%, which is higher than the 10-year average of 14.1%.

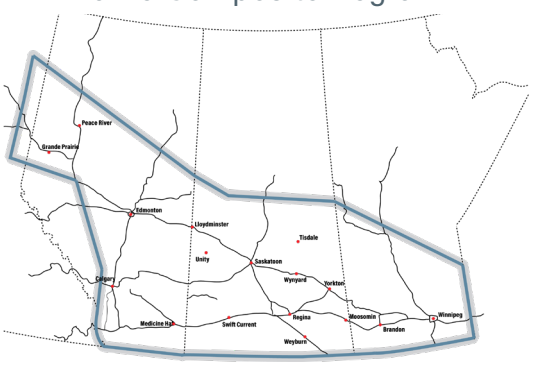
Milling Quality

Lower ash content for both No. 1 and No. 2 CWAD compared to 2022.

Application Performance

Spaghetti has bright, yellow colour with excellent texture and low cooking loss.

FIGURE 2
2023 Western Canadian Prairie Composite Region



PRAIRIE COMPOSITE

No. 1 CWAD
Canada Western Amber Durum

Quality Parameter [a]	Prairie Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	80.7	81.6
Weight Per 1000 Kernels, g	37.9	38.1
Hard Vitreous Kernels, %	95	95
Protein Content, %	15.4	14.7
Protein Content, % (dry matter basis)	17.8	16.9
Ash Content, %	1.52	1.68
Falling Number, s	418	478
Particle Size Index, %	40	37
Milling Semolina Yield Bühler Laboratory Mill		
Total Milling Yield, %	67.0	71.5
Semolina Yield, %	63.1	66.7

PRAIRIE COMPOSITE

No. 2 CWAD
Canada Western Amber Durum

Quality Parameter [a]	Prairie Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	79.1	79.1
Weight Per 1000 Kernels, g	35.7	34.0
Hard Vitreous Kernels, %	92	80
Protein Content, %	15.7	15.1
Protein Content, % (dry matter basis)	18.1	17.4
Ash Content, %	1.51	1.71
Falling Number, s	386	494
Particle Size Index, %	40	35
Milling Semolina Yield Bühler Laboratory Mill		
Total Milling Yield, %	64.9	70.6
Semolina Yield, %	60.9	65.6

[a] Data are reported on a 13.5% moisture basis for wheat.
[b] Refer to crop region map (Figure 2).

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PRAIRIE COMPOSITE

No. 1 CWAD

Canada Western Amber Durum

Quality Parameter [a]	Prairie Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	80.7	81.6
Weight Per 1000 Kernels, g	37.9	38.1
Hard Vitreous Kernels, %	95	95
Protein Content, %	15.4	14.7
Protein Content, % (dry matter basis)	17.8	16.9
Ash Content, %	1.52	1.68
Falling Number, s	418	478
Particle Size Index, %	40	37
Milling Semolina Yield Bühler Laboratory Mill		
Total Milling Yield, %	67.0	71.5
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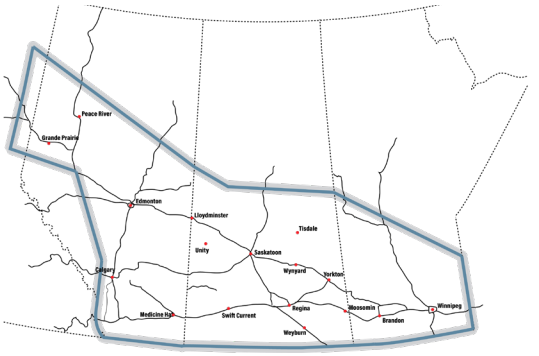
2023 Western Canadian Prairie Composite Region



Quality Parameter [a]	Prairie Composite [b]	
Semolina	2023	2022
Protein Content, %	14.5	13.9
Protein Loss, %	0.9	0.8
Wet Gluten Content, %	35.6	36.5
Gluten Index, %	80	75
Ash Content, %	0.70	0.79
Yellow Pigment Content, ppm	11.3	11.4
Colour, b* (yellowness)	32.6	32.3
Granulation		
> 425 µm, %	1.1	1.2
> 250 µm, %	52.7	49.9
> 180 µm, %	30.3	30.9
> 150 µm, %	7.7	9.0
< 150 µm, %	8.1	9.0
Semolina Speck Count per 50 cm^2		
Total Specks	5	8
Dark Specks	1	2
Large Specks (≥0.06 mm^2)	3	4
Alveograph		
P (height x 1.1), mm	110	98
L (length), mm	91	107
P/L	1.21	0.92
W, 10^{-4} J	316	322
Ie, %	53.8	57.4
Spaghetti		
Firmness @ 9 min cook time, g	790	800
Cooking Loss, %	4.83	4.87
Colour L*	71.3	71.5
a*	4.04	5.31
b*	64.1	64.9

[a] Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for semolina except Alveograph is reported on a 15.0% moisture basis.

[b] Refer to crop region map (Figure 2).

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PRAIRIE COMPOSITE

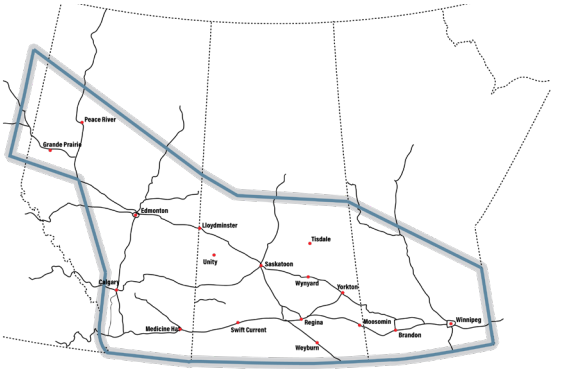
No. 2 CWAD

Canada Western Amber Durum

Quality Parameter [a]	Prairie Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	79.1	79.1
Weight Per 1000 Kernels, g	35.7	34.0
Hard Vitreous Kernels, %	92	80
Protein Content, %	15.7	15.1
Protein Content, % (dry matter basis)	18.1	17.4
Ash Content, %	1.51	1.71
Falling Number, s	386	494
Particle Size Index, %	40	35
Milling Semolina Yield Bühler Laboratory Mill		
Total Milling Yield, %	64.9	70.6
Semolina Yield, %	60.9	65.6

FIGURE 2

2023 Western Canadian Prairie Composite Region



Quality Parameter [a]	Prairie Composite [b]	
Semolina	2023	2022
Protein Content, %	14.8	14.1
Protein Loss, %	0.9	1.0
Wet Gluten Content, %	37.4	36.7
Gluten Index, %	72	82
Ash Content, %	0.69	0.81
Yellow Pigment Content, ppm	11.3	12.2
Colour, b* (yellowness)	32.4	32.7
Granulation		
> 425 µm, %	0.5	1.0
> 250 µm, %	54.5	49.1
> 180 µm, %	29.0	31.9
> 150 µm, %	7.4	9.1
< 150 µm, %	8.6	8.9
Semolina Speck Count per 50 cm^2		
Total Specks	6	9
Dark Specks	2	2
Large Specks (≥0.06 mm^2)	3	5
Alveograph		
P (height x 1.1), mm	106	99
L (length), mm	96	109
P/L	1.10	0.91
W, 10^{-4} J	314	337
Ie, %	53.5	59.0
Spaghetti		
Firmness @ 9 min cook time, g	753	773
Cooking Loss, %	4.63	5.15
Colour L*	71.3	71.5
a*	4.12	5.89
b*	64.3	66.3

[a] Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for semolina except Alveograph is reported on a 15.0% moisture basis.

[b] Refer to crop region map (Figure 2).

Harvest assessment composites represent grain available for export. Milling, analytical, and end-product analysis conducted by Cereals Canada following the Methods of Analysis on Cereals Canada's website (https://cerealscanada.ca/analytical-methods/).

CPSR Canada Prairie Spring Red

With medium kernel hardness and protein content, CPSR has high milling yields with low flour ash resulting in flour with bright colour. Flour milled from CPSR can be used to produce high-quality baked goods and noodles.

Top Five CPSR Varieties Grown in 2023

1. AAC Penhold
2. Accelerate
3. AAC Goodwin
4. 5700PR
5. AAC Foray

2023 EXECUTIVE SUMMARY

PRODUCTION
(5-year average, 2018-2022)

1.7 million tonnes

TOTAL WHEAT GROWN IN CANADA

5%

Protein

12.7% protein content which is similar to the 10-year average of 12.5%.

Advice from an Expert

CPSR offers a balance of strength and extensibility resulting in high quality end-products.

Milling Quality

CPSR from the 2023 crop year has milling performance typical of CPSR quality with good test weight.

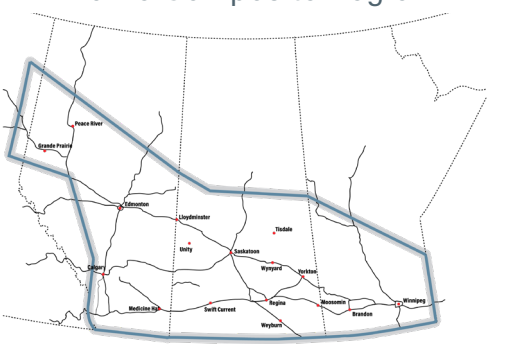
Grading Factors

94% of the 2023 CPSR crop graded No. 1 and No. 2.

Application Performance

Flour milled from CPSR has good processing quality resulting in high-quality bread and noodles.

FIGURE 2
2023 Western Canadian Prairie Composite Region



PRAIRIE COMPOSITE

No. 1 CPSR
Canada Prairie Spring Red

Quality Parameter [a]	Prairie Composite [b]	
Wheat	2023	2022
Test Weight, kg/hL	83.0	83.6
Weight Per 1000 Kernels, g	37.7	40.8
Protein Content, %	12.9	12.7
Protein Content, % (dry matter basis)	14.9	14.6
Ash Content, %	1.41	1.50
Falling Number, s	376	431
Particle Size Index, %	56	52
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	74.8	75.8
0.50% Ash Basis, %	76.3	78.3

[a] Data are reported on a 13.5% moisture basis for wheat.
[b] Refer to crop region map (Figure 2).

CEREALS CANADA
Commission canadienne des grains
Canadian Grain Commission
Canada

PRAIRIE COMPOSITE

No. 1 CPSR

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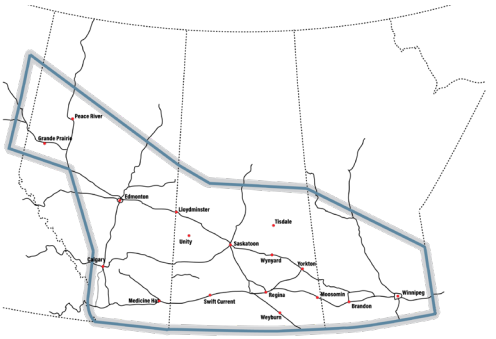
2023 Western Canadian Prairie Composite Region



Quality Parameter [a]	Prairie Composite [b]		Prairie Composite [b]	
Flour	2023		2022	
Extraction	Straight Grade 74.8%	74%	Straight Grade 75.8%	74%
Protein Content, %	12.1	12.0	11.9	11.6
Protein Loss, %	0.8	0.9	0.8	1.1
Wet Gluten Content, %	28.7	31.1	30.0	30.4
Gluten Index, %	98	98	98	97
Ash Content, %	0.47	0.44	0.45	0.41
Colour, L*	84.7	85.0	84.5	85.2
Starch Damage, UCD	23.6	23.2	24.9	24.6
Amylograph Peak Viscosity, BU	411	427	713	744
Farinograph				
Absorption, %	60.5	60.4	63.1	62.8
Dough Development Time (DDT), min	4.7	5.4	7.1	7.2
Stability, min	14.6	14.8	12.8	16.2
Mixing Tolerance Index (MTI), BU	17	19	27	18
Extensograph (135 min)				
Maximum Resistance (Rmax), BU	668	755	585	643
Extensibility (length), cm	20.0	18.7	19.6	18.7
Area, cm^2	168	175	143	153
Alveograph				
P (height x 1.1), mm	116	113	121	122
L (length), mm	136	160	120	138
P/L	0.85	0.71	1.01	0.88
W, 10^{-4} J	498	537	487	542
Ie, %	62.3	61.9	65.3	65.6
Baking (No Time Dough)				
Absorption, %	64	n/a	67	n/a
Mixing Time, min	6.3	n/a	6.3	n/a
Specific Volume, cm^3/g	7.3	n/a	7.3	n/a
Total Bread Score (out of 10)	8.9	n/a	9.3	n/a
Baking (Sponge & Dough)				
Absorption, %	63	n/a	66	n/a
Mixing Time, min	6.6	n/a	7.7	n/a
Specific Volume, cm^3/g	7.1	n/a	7.0	n/a
Total Bread Score (out of 10)	9.4	n/a	9.6	n/a
Noodles (Fresh White Salted)				
Colour (3h / 24h) L*	n/a	74.3 / 69.3	n/a	76.0 / 71.6
a*	n/a	1.32 / 1.87	n/a	1.24 / 1.65
b*	n/a	23.4 / 22.0	n/a	25.6 / 24.2
Cooked Noodle Max. Cutting Stress g/mm^2				
Cook Time - 3.5 min	n/a	28.2	n/a	24.2

[a] Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour except Alveograph is on a 15.0% moisture basis and starch damage is as is.

[b] Refer to crop region map (Figure 2)

n/a - Not available (testing will not be conducted).

Harvest assessment composites represent grain available for export. Milling, analytical, and end-product analysis conducted by Cereals Canada following the Methods of Analysis on Cereals Canada's website (https://cerealscanada.ca/analytical-methods/).

CESRW Canada Eastern Soft Red Winter

Grown largely in Ontario, with additional production in Quebec and the Atlantic provinces, CESRW is a soft, low protein wheat ideal for cakes, pastry, cereals, crackers, biscuits, and fillings. It is easy to mill and typically has a high flour yield resulting in flour that is bright and creamy in colour.

2023 EXECUTIVE SUMMARY

ONTARIO PRODUCTION

2.4 million tonnes

TOTAL WHEAT GROWN IN CANADA

8%

WINTER WHEAT GROWN IN CANADA

76%

Advice from an Expert

Very strong, consistent quality this year with the vast majority of the crop in milling grades. Mildew was the primary downgrading factor between No. 1 and No. 2 and no presence of fusarium. Acceptable falling number across all grades with an average of 318 seconds.

Grading Factors

94% graded No. 2 or above.

Protein

9.5% protein content. Protein levels are ideal for this class and slightly higher than last year, exactly in line with the five-year protein average.

Milling Quality

Milling yields, as well as those corrected to a 0.50% ash basis are slightly lower when compared to last year, but are still at acceptable levels and within the expected range. Starch damage is slightly lower from 2022.

Application Performance

Good protein content coupled with good amylograph peak viscosity led to acceptable cookie bake test results in terms of cookie width to thickness ratio, resulting in a good cookie spread factor. These values are slightly lower than last year but are still very acceptable.

FIGURE 3

2023 Eastern Canadian CESRW Composite Region

No. 2 or better
Canada Eastern Soft Red Winter

Quality Parameter [a]	CESRW Composite[b]	
Wheat	2023	2022
Test Weight, kg/hL	78.8	80.6
Weight Per 1000 Kernels, g	34.2	34.9
Protein Content, %	9.5	9.4
Protein Content, % (dry matter basis)	11.0	10.9
Ash Content, %	1.39	1.42
Falling Number, s	318	347
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	70.2	71.5
0.50% Ash Basis, %	76.2	76.5

[a] Data are reported on a 13.5% moisture basis for wheat.

[b] Refer to blue outlined area in crop region map (Figure 3).

No. 2 or better
Canada Eastern Soft Red Winter

Quality Parameter [a]	CESRW Composite[b]	
Wheat	2023	2022
Test Weight, kg/hL	78.8	80.6
Weight Per 1000 Kernels, g	34.2	34.9
Protein Content, %	9.5	9.4
Protein Content, % (dry matter basis)	11.0	10.9
Ash Content, %	1.39	1.42
Falling Number, s	318	347
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	70.2	71.5
0.50% Ash Basis, %	76.2	76.5

FIGURE 3
2023 Eastern Canadian CESRW Composite Region

Quality Parameter [a]	CESRW Composite[b]	
Flour	2023	2022
Extraction	Straight Grade 70.2%	Straight Grade 71.5%
Protein Content, %	7.9	8.1
Protein Loss, %	1.6	1.3
Ash Content, %	0.38	0.40
Colour L*	91.3	91.8
a*	-1.39	-1.23
b*	8.08	9.00
Starch Damage, UCD	16.3	18.5
Amylograph Peak Viscosity, BU	447	720
Farinograph		
Absorption, %	51.3	51.2
Dough Development Time (DDT), min	1.1	1.2
Stability, min	1.5	1.6
Mixing Tolerance Index (MTI), BU	114	108
Alveograph		
P (height x 1.1), mm	25	24
L (length), mm	133	141
P/L	0.19	0.17
W, 10^{-4} J	79	66
Solvent Retention Capacity		
Distilled Water, %	54.4	54.6
Sucrose, %	87.0	82.3
Lactic Acid, %	108.9	100.9
Sodium Carbonate, %	75.9	76.0
Bake (Sugar Snap Cookie Method)		
Cookie Width (w), mm	82.6	82.5
Cookie Thickness (t), mm	9.5	9.0
w/t Ratio	8.7	9.2
Cookie Spread Factor	87	92

[a] Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour except Alveograph is on a 15.0% moisture basis.

[b] Refer to blue outlined area in crop region map (Figure 3).

Analysis carried out by the SGS Grains Analytical Testing Laboratory. Methods used at SGS are available upon request.