



Canada's New Wheat Crop Report, Growing Quality

# 2022 Crop Summary

2022-23

# CWRS Canada Western Red Spring

 **CWRS**  
Major Grading Factors

	No. 1	No. 2	No. 3	All Grades
Number of Samples Graded	2207	362	41	2876
% of all grades	79.3	13.6	1.6	100
<b>Grading Factors*</b>				
	% of grade			
Fusarium Damage				
Ergot				
Hard Vitreous Kernels				

## Top Five CWRS Varieties Grown in 2022

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

Source: Canadian Grain Commission

\*A sample can be downgraded for more than one factor

 **CWRS**  
Protein Content, %

Province	Mean	Standard Deviation
<b>No. 1 CWRS</b>		
Manitoba	14.3	0.9
Saskatchewan	14.2	1.3
Alberta and British Columbia	13.5	1.3
Western Canada	14.0	1.3
<b>No. 2 CWRS</b>		
Manitoba	14.0	0.9
Saskatchewan	13.5	1.5
Alberta and British Columbia	13.2	1.8
Western Canada	13.6	1.5
<b>All Grades</b>		
Manitoba	14.3	0.9
Saskatchewan	14.1	1.4
Alberta and British Columbia	13.5	1.4
Western Canada	13.9	1.3

Grading factor and protein content analysis conducted by Canadian Grain Research Laboratory as of 11/03/2022, basis the Harvest Sample Program.

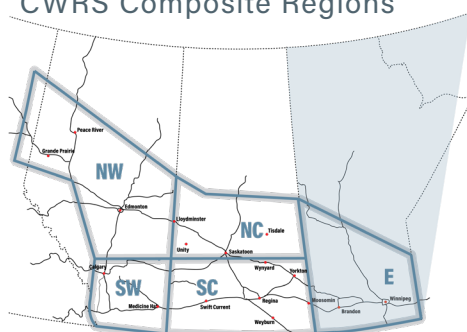
WESTERN COMPOSITE

**No. 1 CWRS**  
Canada Western Red Spring

Quality Parameter <sup>a</sup>	2022	2021
	Western Composite <sup>b</sup>	
Wheat		
Test Weight, kg/hL	83.6	82.6
Weight Per 1000 Kernels, g	33.6	33.5
Protein Content, %	13.9	15.3
Protein Content, % (dry matter basis)	16.0	17.6
Ash Content, %	1.52	1.39
Falling Number, s	423	354
Particle Size Index, %	49	48
Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	75.2	75.0
0.50% Ash Basis, %	78.2	79.0

FIGURE 1

2022 Western Canadian CWRS Composite Regions



<sup>a</sup> 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.

<sup>b</sup> Refer to crop region map (Figure 1, non-shaded area).

<sup>c</sup> Break and shred received a higher score (+) as it was bigger compared to the 2020 composite.

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.

2022

2021

Quality Parameter <sup>a</sup>	Western Composite <sup>b</sup>			Western Composite <sup>b</sup>		
	Flour					
	Straight Grade 75.2%	74%	60%	Straight Grade 75.0%	74%	60%
Extraction						
Protein Content, %	13.2	13.1	12.7	14.7	14.5	14.0
Protein Loss, %	0.7	0.8	1.2	0.6	0.8	1.3
Wet Gluten Content, %	36.5	36.5	33.5	38.0	38.3	37.5
Gluten Index, %	93	91	97	97	96	96
Ash Content, %	0.44	0.42	0.39	0.42	0.40	0.38
Colour - L*	85.1	85.0	85.7	84.5	84.8	85.5
Starch Damage, UCD	25.3	25.2	24.6	23.6	23.4	23.6
Amylograph Peak Viscosity, BU	710	764	801	466	491	497
Farinograph						
Absorption, %	65.2	65.2	64.4	65.6	65.5	65.0
Dough Development Time (DDT), min	7.5	8.3	9.9	8.8	9.3	10.7
Stability, min	15.2	16.9	35.4	46.9	48.8	48.7
Mixing Tolerance Index (MTI), BU	18	14	8	10	10	2
Extensograph (135 min)						
Maximum Resistance (Rmax), BU	563	632	737	754	733	817
Extensibility (length), cm	21.7	20.0	18.9	19.5	21.5	18.3
Area, cm <sup>2</sup>	151	156	172	179	193	183
Alveograph						
P (height x 11), mm	118	116	124	112	126	129
L (length), mm	152	143	141	115	132	125
P/L	0.78	0.81	0.88	0.97	0.95	1.03
W, 10-4 J	590	561	585	504	614	621
Ie, %	69.0	68.7	68.3	73.1	70.6	72.6
Baking (No Time Dough)						
Absorption, %	69	n/a	n/a	69	n/a	n/a
Mixing Time, min	6.3	n/a	n/a	7.8	n/a	n/a
Specific Volume, cm <sup>3</sup> /g	7.9	n/a	n/a	8.3	n/a	n/a
Total Bread Score (out of 10)	9.1	n/a	n/a	9.2+ <sup>c</sup>	n/a	n/a
Baking (Sponge & Dough)						
Absorption, %	68	n/a	67	68	n/a	67
Mixing Time, min	8.4	n/a	8.6	9.1	n/a	9.5
Specific Volume, cm <sup>3</sup> /g	7.2	n/a	7.1	7.3	n/a	7.6
Total Bread Score (out of 10)	9.5	n/a	9.9	9.5	n/a	9.7+ <sup>c</sup>
Noodles (Fresh Yellow Alkaline)						
Colour (3h / 24h) L*	n/a	74.2 / 69.3	74.8 / 71.0	n/a	72.8 / 68.2	74.5 / 70.2
a*	n/a	0.15 / 0.69	-0.10 / 0.44	n/a	0.34 / 0.80	0.20 / 0.56
b*	n/a	26.5 / 24.9	26.3 / 25.2	n/a	25.1 / 23.5	25.2 / 23.9
Cooked Noodle Max. Cutting Stress g/mm <sup>2</sup>						
Cook Time - 3.5 min	n/a	37.1	36.3	n/a	37.7	35.4
Noodles (Fresh White Salted)						
Colour (3h / 24h) L*	n/a	75.7 / 72.2	76.9 / 73.8	n/a	74.4 / 70.9	75.6 / 72.5
a*	n/a	1.73 / 2.16	1.43 / 1.66	n/a	2.00 / 2.41	1.71 / 1.95
b*	n/a	25.3 / 24.9	25.5 / 25.2	n/a	23.7 / 23.1	23.9 / 23.3
Cooked Noodle Max. Cutting Stress g/mm <sup>2</sup>						
Cook Time - 3.5 min	n/a	28.5	26.1	n/a	27.0	25.1

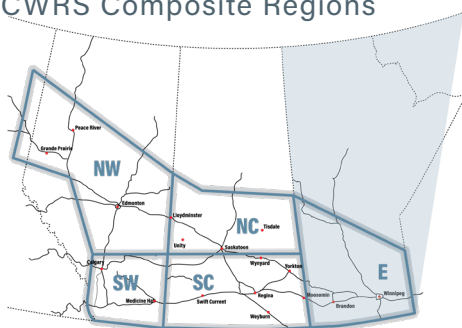
**EASTERN COMPOSITE**

**No. 1 CWRS**  
Canada Western Red Spring

Quality Parameter <sup>a</sup>	2022	2021
	Eastern Composite <sup>b</sup>	
Wheat		
Test Weight, kg/hL	83.4	81.4
Weight Per 1000 Kernels, g	33.0	32.7
Protein Content, %	14.4	15.3
Protein Content, % (dry matter basis)	16.6	17.7
Ash Content, %	1.60	1.43
Falling Number, s	393	340
Particle Size Index, %	51	49

Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	76.3	76.0
0.50% Ash Basis, %	77.3	79.0

**FIGURE 1**  
2022 Western Canadian CWRS Composite Regions



<sup>a</sup> 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.

<sup>b</sup> Refer to crop region map (Figures 1, shaded area)

<sup>c</sup> Break and shred received a higher score (+) as it was bigger compared to the 2020 composite.

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.

Quality Parameter <sup>a</sup>	2022 Eastern Composite <sup>b</sup>		2021 Eastern Composite <sup>b</sup>	
	Flour			
Extraction	Straight Grade 76.3%	74%	Straight Grade 76.0%	74%
Protein Content, %	13.5	13.3	14.3	14.2
Protein Loss, %	0.9	1.1	1.0	1.1
Wet Gluten Content, %	36.3	36.0	38.2	37.6
Gluten Index, %	95	95	97	98
Ash Content, %	0.48	0.43	0.44	0.39
Colour - L*	84.7	85.2	84.5	85.0
Starch Damage, UCD	24.5	24.3	23.1	22.6
Amylograph Peak Viscosity, BU	593	592	526	558
Farinograph				
Absorption, %	64.9	64.5	63.5	63.4
Dough Development Time (DDT), min	7.4	7.1	8.7	8.7
Stability, min	11.6	13.5	43.8	50.1
Mixing Tolerance Index (MTI), BU	27	22	17	16
Extensograph (135 min)				
Maximum Resistance (Rmax), BU	523	583	608	720
Extensibility (length), cm	23.0	22.6	24.1	22.7
Area, cm <sup>2</sup>	152	167	188	196
Alveograph				
P (height x 1.1), mm	97	102	106	105
L (length), mm	169	178	143	134
P/L	0.57	0.57	0.74	0.78
W, 10-4 J	507	572	578	552
Ie, %	66.9	68.5	73.1	73.0
Baking (No Time Dough)				
Absorption, %	68	n/a	67	n/a
Mixing Time, min	6.6	n/a	7.8	n/a
Specific Volume, cm <sup>3</sup> /g	7.5	n/a	8.2	n/a
Total Bread Score (out of 10)	9.4	n/a	9.6	n/a
Baking (Sponge & Dough)				
Absorption, %	67	n/a	66	n/a
Mixing Time, min	7.7	n/a	9.6	n/a
Specific Volume, cm <sup>3</sup> /g	7.4	n/a	7.7	n/a
Total Bread Score (out of 10)	9.7	n/a	9.6+ <sup>c</sup>	n/a
Noodles (Fresh Yellow Alkaline)				
Colour (3h / 24h) L*	n/a	72.7 / 69.0	n/a	74.1 / 69.1
a*	n/a	0.45 / 0.79	n/a	0.30 / 0.65
b*	n/a	26.0 / 25.0	n/a	25.0 / 23.5
Cooked Noodle Max. Cutting Stress g/mm <sup>2</sup>				
Cook Time - 3.5 min	n/a	35.0	n/a	36.9
Noodles (Fresh White Salted)				
Colour (3h / 24h) L*	n/a	74.8 / 71.7	n/a	75.2 / 72.0
a*	n/a	2.06 / 2.47	n/a	2.11 / 2.36
b*	n/a	24.9 / 24.4	n/a	23.8 / 23.0
Cooked Noodle Max. Cutting Stress g/mm <sup>2</sup>				
Cook Time - 3.5 min	n/a	26.3	n/a	26.5

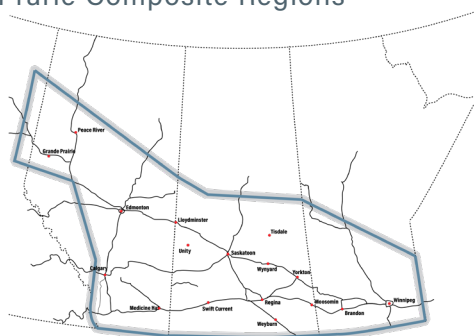
**PRAIRIE COMPOSITE**

**No. 2 CWRS**

**Canada Western Red Spring**

Quality Parameter <sup>a</sup>	2022	2021
	Prairie Composite <sup>b</sup>	
<b>Wheat</b>		
Test Weight, kg/hL	81.2	80.7
Weight Per 1000 Kernels, g	34.3	34.0
Protein Content, %	13.8	14.8
Protein Content, % (dry matter basis)	16.0	17.1
Ash Content, %	1.57	1.42
Falling Number, s	352	308
Particle Size Index, %	53	48
<b>Milling Flour Yield Bühler Laboratory Mill</b>		
Total Products Basis, %	75.2	75.7
0.50% Ash Basis, %	77.2	79.2

**FIGURE 2**  
2022 Western Canadian Prairie Composite Regions



<sup>a</sup> 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.

<sup>b</sup> Refer to crop region map (Figure 2).

<sup>c</sup> Break and shred received a higher (+) as it was bigger compared to the 2020 composite.

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.

Quality Parameter <sup>a</sup>	2022	2021
	Prairie Composite <sup>b</sup>	
<b>Flour</b>		
Extraction	Straight Grade 75.2%	Straight Grade 75.5%
Protein Content, %	12.9	13.9
Protein Loss, %	0.9	0.9
Wet Gluten Content, %	35.0	36.8
Gluten Index, %	98	97
Ash Content, %	0.46	0.43
Colour - L*	85.0	84.1
Starch Damage, UCD	24.6	23.5
Amylograph Peak Viscosity, BU	407	350
<b>Farinograph</b>		
Absorption, %	63.4	64.0
Dough Development Time (DDT), min	6.3	7.0
Stability, min	14.0	15.7
Mixing Tolerance Index (MTI), BU	17	16
<b>Extensograph (135 min)</b>		
Maximum Resistance (Rmax), BU	612	510
Extensibility (length), cm	21.9	25.1
Area, cm <sup>2</sup>	171	161
<b>Alveograph</b>		
P (height x 1.1), mm	98	107
L (length), mm	169	100
P/L	0.58	1.07
W, 10-4 J	536	431
Ie, %	67.9	72.3
<b>Baking (No Time Dough)</b>		
Absorption, %	67	67
Mixing Time, min	6.6	7.4
Specific Volume, cm <sup>3</sup> /g	7.7	8.0
Total Bread Score (out of 10)	9.5	9.0+ <sup>c</sup>
<b>Baking (Sponge &amp; Dough)</b>		
Absorption, %	66	66
Mixing Time, min	8.1	8.7
Specific Volume, cm <sup>3</sup> /g	7.7	7.8
Total Bread Score (out of 10)	9.6	9.3+ <sup>c</sup>
<b>Noodles (Fresh Yellow Alkaline)</b>		
Colour (3h / 24h) L*	n/a	n/a
a*	n/a	n/a
b*	n/a	n/a
<b>Cooked Noodle Max. Cutting Stress g/mm<sup>2</sup></b>		
Cook Time - 3.5 min	n/a	n/a
<b>Noodles (Fresh White Salted)</b>		
Colour (3h / 24h) L*	n/a	n/a
a*	n/a	n/a
b*	n/a	n/a
<b>Cooked Noodle Max. Cutting Stress g/mm<sup>2</sup></b>		
Cook Time - 3.5 min	n/a	n/a

2022-23

# CWAD Canada Western Amber Durum



CWAD

## Major Grading Factors

	No. 1	No. 2	No. 3	No. 4	No. 5	All Grades
Number of Samples Graded	523	169	100	17	37	870
% of all grades	61.8	20.0	11.8	2.0	4.4	100
<b>Grading Factor* % of grade</b>						
Hard Vitreous Kernels	0.0	21.9	13.0	5.9	2.7	
Ergot	0.0	0.6	24.0	0.0	59.5	
Test Weight	0.0	58.0	22.0	23.5	8.1	

### Top Five CWAD Varieties Grown in 2022

- 1 Transcend
- 2 CDC Precision
- 3 Brigade
- 4 AAC Stronghold
- 5 AAC Spitfire

Source: Canadian Grain Commission

\*A sample can be downgraded for more than one factor



CWAD

## Protein Content, %

Province	Mean	Standard Deviation
<b>No. 1 CWAD</b>		
Saskatchewan	14.4	1.9
Alberta and British Columbia	13.9	1.3
Western Canada	14.3	1.8
<b>No. 2 CWAD</b>		
Saskatchewan	15.1	2.4
Alberta and British Columbia	14.9	2.1
Western Canada	15.0	2.3
<b>No. 3 CWAD</b>		
Saskatchewan	14.4	1.8
Alberta and British Columbia	NS	NS
Western Canada	14.5	1.8
<b>All Grades</b>		
Saskatchewan	14.6	2.0
Alberta and British Columbia	14.5	1.8
Western Canada	14.5	2.0

NS = Not sufficient. Insufficient number of samples to generate a representative value

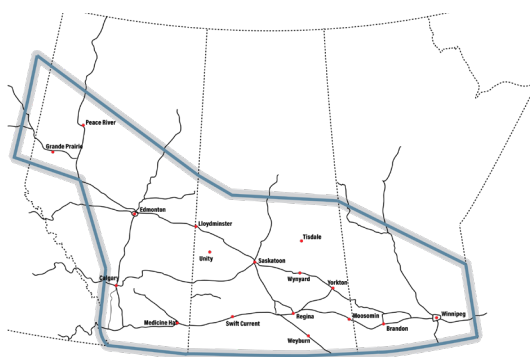
Grading factor and protein content analysis conducted by Canadian Grain Research Laboratory as of 11/03/2022, basis the Harvest Sample Program.



PRAIRIE COMPOSITE

**No. 1 CWAD**  
Canada Western Amber Durum

**FIGURE 2**  
2022 Western Canadian  
Prairie Composite Regions



Quality Parameter <sup>a</sup>	2022	2021
	Prairie Composite <sup>b</sup>	
<b>Wheat</b>		
Test Weight, kg/hL	81.6	81.0
Weight Per 1000 Kernels, g	38.1	38.8
Vitreous Kernels, %	95	90
Protein Content, %	14.7	15.8
Protein Content, % (dry matter basis)	16.9	18.3
Ash Content, %	1.68	1.59
Falling Number, s	478	469
Particle Size Index, %	37	37
<b>Milling Semolina Yield Bühler Laboratory Mill</b>		
Total Milling Yield, %	71.5	67.8
Semolina Yield, %	66.7	63.2
<b>Semolina</b>		
Protein Content, %	13.9	15.0
Protein Loss, %	0.8	0.9
Wet Gluten Content, %	36.5	37.8
Gluten Index, %	75	76
Ash Content, %	0.79	0.71
Yellow Pigment Content, ppm	11.4	11.3
Colour - b* (yellowness)	32.3	33.6
<b>Granulation</b>		
> 425 µm, %	1.2	1.0
> 250 µm, %	49.9	52.6
> 180 µm, %	30.9	32.2
> 150 µm, %	9.0	7.5
< 150 µm, %	9.0	6.7
<b>Semolina Speck Count per 50 cm<sup>2</sup></b>		
Total Specks	8	6
Dark Specks	2	1
Large Specks (≥0.06 mm <sup>2</sup> )	4	3
<b>Alveograph</b>		
P (height x 1.1), mm	98	105
L (length), mm	107	70
P/L	0.92	1.50
W, 10-4 J	322	273
le, %	57.4	57.4
<b>Spaghetti</b>		
Firmness @ 9 min cook time, g	800	1058
Cooking Loss, %	4.87	4.73
Colour L*	71.5	72.7
a*	5.31	5.16
b*	64.9	65.8

<sup>a</sup> 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.

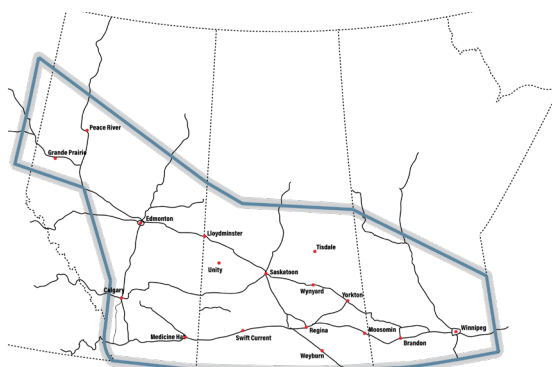
<sup>b</sup> Refer to crop region map (Figure 2).

Harvest assessment composites represent grain available for export. Milling, analytical, and end product analysis conducted by Cereals Canada.

PRAIRIE COMPOSITE

**No. 2 CWAD**  
Canada Western Amber Durum

**FIGURE 2**  
2022 Western Canadian  
Prairie Composite Regions



Quality Parameter <sup>a</sup>	2022	2021
	Prairie Composite <sup>b</sup>	
<b>Wheat</b>		
Test Weight, kg/hL	79.1	79.3
Weight Per 1000 Kernels, g	34.0	37.6
Vitreous Kernels, %	80	84
Protein Content, %	15.1	16.1
Protein Content, % (dry matter basis)	17.4	18.6
Ash Content, %	1.71	1.60
Falling Number, s	494	358
Particle Size Index, %	35	35
<b>Milling Semolina Yield Bühler Laboratory Mill</b>		
Total Milling Yield, %	70.6	67.2
Semolina Yield, %	65.6	62.2
<b>Semolina</b>		
Protein Content, %	14.1	15.2
Protein Loss, %	1.0	0.9
Wet Gluten Content, %	36.7	38.1
Gluten Index, %	82	80
Ash Content, %	0.81	0.71
Yellow Pigment Content, ppm	12.2	11.4
Colour - b* (yellowness)	32.7	33.0
<b>Granulation</b>		
> 425 µm, %	1.0	0.6
> 250 µm, %	49.1	49.7
> 180 µm, %	31.9	32.7
> 150 µm, %	9.1	8.2
< 150 µm, %	8.9	8.8
<b>Semolina Speck Count per 50 cm<sup>2</sup></b>		
Total Specks	9	6
Dark Specks	2	1
Large Specks (≥0.06 mm <sup>2</sup> )	5	3
<b>Alveograph</b>		
P (height x 1.1), mm	99	101
L (length), mm	109	78
P/L	0.91	1.29
W, 10-4 J	337	288
le, %	59.0	59.3
<b>Spaghetti</b>		
Firmness @ 9 min cook time, g	773	1201
Cooking Loss, %	5.15	4.48
Colour L*	71.5	73.3
a*	5.89	5.38
b*	66.3	65.9

<sup>a</sup> 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.

<sup>b</sup> 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.

2022-23

# CPSR Canada Prairie Spring Red



CPSR

## Major Grading Factors

	No. 1	No. 2	CW Feed	All Grades
Number of Samples Graded				123
% of all grades	85.4	4.9	8.9	100
Grading Factor*	% of grade			
Ergot				
Total Foreign Materials				
Frost				

### Top Five CPSR Varieties Grown in 2022

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

Source: Canadian Grain Commission

\*A sample can be downgraded for more than one factor



CPSR

## Protein Content, %

Province	Mean	Standard Deviation
No. 1 CPSR		
Manitoba	NS	NS
Saskatchewan	NS	NS
Alberta and British Columbia	12.0	1.2
Western Canada	12.2	1.3
No. 2 CPSR		
Manitoba	NS	NS
Saskatchewan	NS	NS
Alberta and British Columbia	NS	NS
Western Canada	NS	NS
All Grades		
Manitoba	NS	NS
Saskatchewan	NS	NS
Alberta and British Columbia	12.1	1.2
Western Canada	12.3	1.2

NS = Not Sufficient.  
Insufficient number of samples to generate a representative sample

Grading factor and protein content analysis conducted by Canadian Grain Research Laboratory as of 11/03/2022, basis the Harvest Sample Program.

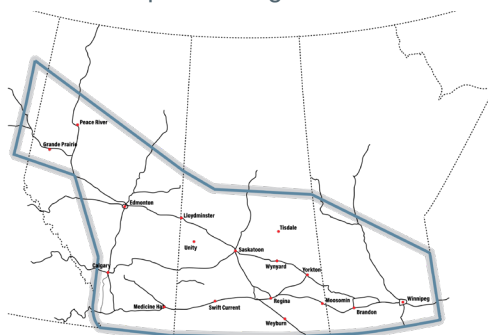
**PRAIRIE COMPOSITE**

**No. 1 CPRS**  
Canada Prairie Spring Red

Quality Parameter <sup>a</sup>	2022 Prairie Composite <sup>b</sup>	2021
<b>Wheat</b>		
Test Weight, kg/hL	83.6	82.0
Weight Per 1000 Kernels, g	40.8	40.8
Protein Content, %	12.7	14.1
Protein Content, % (dry matter basis)	14.6	16.3
Ash Content, %	1.50	1.38
Falling Number, s	431	401
Particle Size Index, %	52	50

Milling Flour Yield Bühler Laboratory Mill		
Total Products Basis, %	75.8	74.8
0.50% Ash Basis, %	78.3	75.8

**FIGURE 2**  
2022 Western Canadian  
Prairie Composite Regions



<sup>a</sup> Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour except Alveograph is at 15.0% moisture basis and starch damage is as is.

<sup>b</sup> Refer to crop region map (Figure 2).

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

<sup>c</sup> Break and shred received a higher score (+) as it was bigger compared to the 2020 composite.

Harvest assessment composites represent grain available for export. Milling, analytical, and end product analysis conducted by Cereals Canada.

Quality Parameter <sup>a</sup>	2022 Prairie Composite <sup>b</sup>		2021 Prairie Composite <sup>b</sup>	
	Flour <sup>c</sup>			
Extraction	Straight Grade 75.8%	74%	Straight Grade 74.8%	74%
Protein Content, %	11.9	11.6	13.5	13.3
Protein Loss, %	0.8	1.1	0.6	0.8
Wet Gluten Content, %	30.0	30.4	34.9	34.6
Gluten Index, %	98	97	98	98
Ash Content, %	0.45	0.41	0.48	0.45
Colour - L*	84.5	85.2	84.3	84.6
Starch Damage, UCD	24.9	24.6	23.6	23.9
Amylograph Peak Viscosity, BU	713	744	562	606
<b>Farinograph</b>				
Absorption, %	63.1	62.8	64.4	64.2
Dough Development Time (DDT), min	7.1	7.2	9.0	9.1
Stability, min	12.8	16.2	18.8	26.3
Mixing Tolerance Index (MTI), BU	27	18	19	12
<b>Extensograph (135 min)</b>				
Maximum Resistance (Rmax), BU	585	643	703	717
Extensibility (length), cm	19.6	18.7	20.7	20.7
Area, cm <sup>2</sup>	143	153	188	186
<b>Alveograph</b>				
P (height x 1.1), mm	121	122	115	113
L (length), mm	120	138	111	119
P/L	1.01	0.88	1.04	0.95
W, 10-4 J	487	542	480	504
le, %	65.3	65.6	69.5	70.1
<b>Baking (No Time Dough)</b>				
Absorption, %	67	n/a	67	n/a
Mixing Time, min	6.3	n/a	7.0	n/a
Specific Volume, cm <sup>3</sup> /g	7.3	n/a	7.5	n/a
Total Bread Score (out of 10)	9.3	n/a	9.4	n/a
<b>Baking (Sponge &amp; Dough)</b>				
Absorption, %	66	n/a	66	n/a
Mixing Time, min	7.7	n/a	7.8	n/a
Specific Volume, cm <sup>3</sup> /g	7.0	n/a	7.4	n/a
Total Bread Score (out of 10)	9.6	n/a	9.6+ <sup>c</sup>	n/a
<b>Noodles (Fresh White Salted)</b>				
Colour (3h / 24h) L*	n/a	76.0 / 71.6	n/a	73.9 / 69.5
a*	n/a	1.24 / 1.65	n/a	1.55 / 1.93
b*	n/a	25.6 / 24.2	n/a	24.1 / 22.4
<b>Cooked Noodle Max. Cutting Stress g/mm<sup>2</sup></b>				
Cook Time - 3.5 min	n/a	24.2	n/a	28.4

2022-23

# CESRW Canada Eastern Soft Red Winter

## No. 2 or better Canada Eastern Soft Red Winter

Quality Parameter <sup>a</sup>	2022	2021
	Ontario	Ontario
<b>Wheat<sup>b</sup></b>		
Test Weight, kg/hL	80.6	78.3
Weight Per 1000 Kernels, g	34.9	32.6
Protein Content, %	9.4	9.5
Protein Content, % (dry matter basis)	10.9	11
Ash Content, %	1.41	1.35
Falling Number, s	347	267
Particle Size Index, %	n/a	n/a
<b>Milling Flour Yield Bühler Laboratory Mill</b>		
Total Products Basis, %	71.5	74.4
0.50% Ash Basis, %	76.5	77.9

Quality Parameter <sup>a</sup>	2022	2021
	Ontario	Ontario
<b>Flour</b>		
Extraction	<b>Straight Grade 71.5%</b>	<b>Straight Grade 74.4%</b>
Protein Content, %	8.1	8.3
Protein Loss, %	1.3	1.2
Ash Content, %	0.35	0.43
Starch Damage, %	18.5	16.7
Amylograph Peak Viscosity, BU	720	248
<b>Farinogram</b>		
Absorption, %	51.2	51.1
Dough Development Time (DDT), min	1.2	1.0
Stability, min	1.6	1.3
Mixing Tolerance Index (MTI), BU	108	116
<b>Alveogram</b>		
P (height x 11), mm	24	25
L (length), mm	141	113
P/L	0.17	0.22
W, 10-4 J	66	64
<b>Solvent Retention Capacity</b>		
Distilled Water, %	54.6	55.5
Sucrose, %	82.3	87.7
Lactic Acid, %	100.9	107.9
Sodium Carbonate, &	76	78.1
<b>Bake (Sugar Snap Cookie Method)</b>		
Cookie Width (w), mm	82.5	81.3
Cookie Thickness (t), mm	9.0	10.8
w/t Ratio	9.2	7.5
Cookie Spread Factor	91.5	75.3

<sup>a</sup> Data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour.

<sup>b</sup> Analysis carried out by the SGS Grains Analytical Testing Laboratory, methods used at SGS are available upon request.

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