



Harvest quality of Ontario wheat – 2015

Canada Eastern White Winter wheat

Quality data for 2015 harvest sample grade composite samples - Milling Flour Yield - Allis-Chalmers Mill – Regionals

Quality parameter ¹	No. 2 CEWW or better (SW)
Wheat	
Test weight, kg/hL	80.8
Weight per 1000 kernels, g	34.5
Protein content, %	9.8
Protein content, % (dry matter basis)	11.4
Ash content, %	1.53
Alpha-amylase activity, units/g	6.5
Falling number, seconds	330
Particle size index, %	71
Milling Flour Yield - Allis-Chalmers Mill	
Clean wheat basis, %	76.5
0.50% ash basis, %	76.0
Flour	
Protein content, %	8.8
Wet gluten content, %	23.0
Ash content, %	0.51
Brightness, L*	91.9
Redness, a*	0.26
Yellowness, b*	10.87
Starch damage, %	3.5
Alpha-amylase activity, units/g	2.5
Amylograph peak viscosity, BU	370
SRC, water, %	55
SRC, lactic acid, %	83
SRC, lactic acid after 30 days, %	77
SRC, sucrose, %	94
SRC, sodium carbonate, %	75
Farinogram	
Absorption, %	51.7
Development time, minutes	1.25
Mixing tolerance index, BU	125
Stability, minutes	1.5
Alveogram	
P (height x 1.1), mm	79
Length, mm	27
P/L	0.34
W, x 10 ⁻⁴ joules	46
Cookie test	

Sugar-snap, width, mm	82.0
Sugar-snap, ratio (width/thickness)	9.0
Macro wire-cut, width, mm	78.9
Macro wire-cut, ratio (width/thickness)	8.0

**Quality data for 2015 harvest sample grade composite samples - Milling Flour Yield - Buhler Mill
– Regionals**

Quality parameter ¹	No. 2 CEWW or better (SW)
Wheat	
Test weight, kg/hL	80.8
Weight per 1000 kernels, g	34.5
Protein content, %	9.8
Protein content, % (dry matter basis)	11.4
Ash content, %	1.53
Alpha-amylase activity, units/ g	6.5
Falling number, seconds	330
Particle size index, %	71
Milling Flour Yield - Buhler Mill	
Clean wheat basis, %	76.6
0.50% ash basis, %	75.6
Flour	
Protein content, %	8.5
Wet gluten content, %	23.0
Ash content, %	0.52
Brightness, L*	91.6
Redness, a*	0.31
Yellowness, b*	10.89
Starch damage, %	4.3
Alpha-amylase activity, units/ g	2.5
Amylograph peak viscosity, BU	350
SRC, water, %	59
SRC, lactic acid, %	83
SRC, lactic acid after 30 days, %	80
SRC, sucrose, %	98
SRC, sodium carbonate, %	78
Farinogram	
Absorption, %	53.2
Development time, minutes	1.25
Mixing tolerance index, BU	135
Stability, minutes	1.0
Alveogram	
P (height x 1.1), mm	78
Length, mm	30
P/L	0.38
W, x 10 ⁻⁴ joules	51
Cookie test	
Sugar-snap, width, mm	81.5
Sugar-snap, ratio (width/thickness)	8.9

Macro wire-cut, width, mm	78.0
Macro wire-cut, ratio (width/thickness)	7.9

Canada Eastern Soft Red Winter wheat

Quality data for 2015 harvest sample grade composite samples - Milling Flour Yield - Allis-Chalmers Mill – Regionals

Quality parameter ¹	No. 2 CESRW			No. 3 CESRW
	Niagara	NW	SW	Overall
Wheat				
Test weight, kg/hL	80.1	79.7	80.4	79.3
Weight per 1000 kernels, g	39.1	37.6	37.8	36.1
Protein content, %	10.0	9.6	10.0	9.9
Protein content, % (dry matter basis)	11.6	11.1	11.6	11.5
Ash content, %	1.51	1.49	1.52	1.52
Alpha-amylase activity, units/g	4.0	4.5	3.5	6.5
Falling number, seconds	350	370	380	345
Particle size index, %	72	72	73	73
Milling Flour Yield - Allis-Chalmers Mill				
Clean wheat basis, %	76.0	76.1	75.9	75.6
0.50% ash basis, %	77.0	77.1	76.4	76.6
Flour				
Protein content, %	8.8	8.4	8.8	8.8
Wet gluten content, %	23.3	23.2	24.3	24.2
Ash content, %	0.48	0.48	0.49	0.48
Brightness, L*	91.8	91.9	91.9	91.8
Redness, a*	0.26	0.26	0.30	0.30
Yellowness, b*	9.40	9.33	9.33	9.78
Starch damage, %	3.6	3.5	3.5	3.4
Alpha-amylase activity, units/g	2.0	1.5	1.5	2.5
Amylograph peak viscosity, BU	400	440	425	410
SRC, water, %	56	58	57	57
SRC, lactic acid, %	97	96	93	98
SRC, lactic acid after 30 days, %	91	92	89	93
SRC, sucrose, %	97	99	96	97
SRC, sodium carbonate, %	77	79	77	77
Farinogram				
Absorption, %	52.6	52.3	52.7	52.5
Development time, minutes	1.50	1.25	1.50	1.50
Mixing tolerance index, BU	115	110	105	100
Stability, minutes	1.0	1.5	1.5	2.0
Alveogram				
P (height x 1.1), mm	75	99	94	105
Length, mm	34	34	34	34
P/L	0.45	0.34	0.36	0.32
W, x 10 ⁻⁴ joules	63	70	69	74
Cookie test				
Sugar-snap, width, mm	82.8	82.5	82.0	82.2

Sugar-snap, ratio (width/thickness)	9.3	9.1	9.2	9.2
Macro wire-cut, width, mm	79.1	79.0	79.4	79.5
Macro wire-cut, ratio (width/thickness)	8.0	7.7	7.8	8.0

Quality data for 2015 harvest sample grade composite samples - Milling Flour Yield - Buhler Mill – Regionals

Quality parameter ¹	No. 2 CESRW			No. 3 CESRW
	Niagara	NW	SW	Overall
Wheat				
Test weight, kg/hL	80.1	79.7	80.4	79.3
Weight per 1000 kernels, g	39.1	37.6	37.8	36.1
Protein content, %	10.0	9.6	10.0	9.9
Protein content, % (dry matter basis)	11.6	11.1	11.6	11.5
Ash content, %	1.51	1.49	1.52	1.52
Alpha-amylase activity, units/ g	4.0	4.5	3.5	6.5
Falling number, seconds	350	370	380	345
Particle size index, %	72	72	73	73
Milling Flour Yield - Buhler Mill				
Clean wheat basis, %	76.7	76.4	76.4	75.8
0.50% ash basis, %	76.2	76.9	76.4	75.3
Flour				
Protein content, %	8.6	8.3	8.6	8.6
Wet gluten content, %	23.9	22.9	23.8	23.7
Ash content, %	0.51	0.49	0.50	0.51
Brightness, L*	91.4	91.6	91.4	91.4
Redness, a*	0.37	0.38	0.41	0.40
Yellowness, b*	9.42	9.26	9.43	9.77
Starch damage, %	4.1	3.9	4.1	4.2
Alpha-amylase activity, units/ g	2.0	1.0	1.5	2.5
Amylograph peak viscosity, BU	410	495	395	360
SRC, water, %	60	60	59	59
SRC, lactic acid, %	96	95	93	98
SRC, lactic acid after 30 days, %	92	92	89	94
SRC, sucrose, %	101	100	98	100
SRC, sodium carbonate, %	79	79	79	80
Farinogram				
Absorption, %	53.2	53.1	53.0	53.6
Development time, minutes	1.25	1.00	1.50	1.50
Mixing tolerance index, BU	100	110	85	95
Stability, minutes	1.5	1.0	1.5	1.5
Alveogram				
P (height x 1.1), mm	92	67	90	88
Length, mm	35	37	37	37
P/L	0.38	0.55	0.41	0.42
W, x 10 ⁻⁴ joules	72	65	76	78
Cookie test				
Sugar-snap, width, mm	81.5	81.8	81.2	81.5

Sugar-snap, ratio (width/thickness)	9.0	8.7	8.8	9.0
Macro wire-cut, width, mm	78.7	78.5	78.2	77.7
Macro wire-cut, ratio (width/thickness)	8.1	8.0	7.8	8.0

Canada Eastern Hard Red Winter wheat

Quality data for 2015 harvest sample grade composite samples - Milling Flour Yield - Allis-Chalmers Mill – Regionals

Quality parameter ¹	No. 2 CEHRW or better (Overall)
Wheat	
Test weight, kg/hL	80.5
Weight per 1000 kernels, g	40.3
Protein content, %	10.6
Protein content, % (dry matter basis)	12.2
Ash content, %	1.50
Alpha-amylase activity, units/ g	6.5
Falling number, seconds	375
Particle size index, %	58
Milling Flour Yield - Allis-Chalmers Mill	
Clean wheat basis, %	76.8
0.50% ash basis, %	77.3
Flour	
Protein content, %	9.6
Wet gluten content, %	25.9
Ash content, %	0.49
Brightness, L*	91.4
Redness, a*	0.43
Yellowness, b*	10.03
Starch damage, %	7.8
Alpha-amylase activity, units/g	3.5
Amylograph peak viscosity, BU	270
SRC, water, %	70
SRC, lactic acid, %	132
SRC, lactic acid after 30 days, %	128
SRC, sucrose, %	113
SRC, sodium carbonate, %	100
Farinogram	
Absorption, %	60.1
Development time, minutes	1.75
Mixing tolerance index, BU	50
Stability, minutes	3.5
Extensogram	
Absorption, %	57.6
Length, cm	17.3
Height at 5 cm, BU	228
Maximum height, BU	313
Area, cm ²	74

Alveogram	
P (height x 1.1), mm	82
Length, mm	87
P/L	1.06
W, x 10 ⁻⁴ joules	223
Baking (Remix-to-peak baking test)	
Absorption, %	57
Remix time, minutes	2.2
Mixing energy, W-h/kg	3.1
Loaf volume, cm ³ /100 g	710

Quality data for 2015 harvest sample grade composite samples - Milling Flour Yield - Buhler Mill – Regionals

Quality parameter ¹	No. 2 CEHRW or better (Overall)
Wheat	
Test weight, kg/hL	80.5
Weight per 1000 kernels, g	40.3
Protein content, %	10.6
Protein content, % (dry matter basis)	12.2
Ash content, %	1.50
Alpha-amylase activity, units/ g	6.5
Falling number, seconds	375
Particle size index, %	58
Milling Flour Yield - Buhler Mill	
Clean wheat basis, %	76.6
0.50% ash basis, %	77.6
Flour	
Protein content, %	9.5
Wet gluten content, %	25.6
Ash content, %	0.48
Brightness, L*	90.8
Redness, a*	0.54
Yellowness, b*	10.68
Starch damage, %	7.5
Alpha-amylase activity, units/g	4.0
Amylograph peak viscosity, BU	285
SRC, water, %	70
SRC, lactic acid, %	132
SRC, lactic acid after 30 days, %	127
SRC, sucrose, %	109
SRC, sodium carbonate, %	101
Farinogram	
Absorption, %	58.3
Development time, minutes	2.00
Mixing tolerance index, BU	55
Stability, minutes	4.0
Extensogram	

Absorption, %	56.1
Length, cm	17.3
Height at 5 cm, BU	224
Maximum height, BU	296
Area, cm ²	72
Alveogram	
P (height x 1.1), mm	89
Length, mm	74
P/L	0.83
W, x 10 ⁻⁴ joules	195
Baking (Remix-to-peak baking test)	
Absorption, %	55
Remix time, minutes	2.0
Mixing energy, W-h/kg	3.0
Loaf volume, cm ³ /100 g	695

¹ Unless otherwise specified, data are reported on a 13.5% moisture basis for wheat and a 14.0% moisture basis for flour.