# 2017

## Ontario Winter Wheat Performance Trials

Data collected 2013-2017 <u>www.gocereals.ca</u>



**Conducted by the Ontario Cereal Crop Committee** 

Current as of December 25, 2017 (version 2)

#### **Ontario Winter Wheat Performance Trials**

This report has been prepared by the Ontario Cereal Crop Committee and contains the most recent varietal information on winter wheat that was planted in 2016 and harvested in 2017

#### **ADDITIONAL INFORMATION**

Additional information is available at www.gocereals.ca, including

- Map with area and individual locations
- Head to Head comparisons which give multi-year data
- Historical Performance reports

For more information contact:

Ellen Sparry
Trial Coordinator
C&M Seeds
519-343-2126
esparry@redwheat.com

### 2017

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Table 1 - Ontario Winter Wheat Performance Trial; Cumulative Yield Summary for Area I & II Combined<sup>2</sup>, OCCC, August 2017

Class <sup>3</sup>	Variety	5 year	4 year	3 year	2 year	2017
sww	25W31 (awned) 🐠			95 <sup>4</sup>	92	89
	Ava					103
srw	Emmit	96	92	90	88	86
	Branson	108	107	109	110	112
	Wave	99	96	96	95	91
	CM614	104	104	105	105	104
	WB425 (awned) 🀽	103	103	103	103	102
	CM249 (awned)	104	103	103	104	101
	25R34 (awned)	109	108	108	110	109
	25R40 (awned)	111	111	112	114	115
	HY 412-SRW 🐽	101	101	101	100	101
	Emperor 🖭	99	97	96	94	90
	OAC Flight (awned) 🐽	92	89	85	81	81
	Marker	105	105	105	106	105
	UGRC Ring (awned)	105	106	106	108	106
	25R46 (awned)		89	86	83	82
	Cruze (awned)			103	104	99
	DS572SRW 🖭			101	100	98
	Drew (awned)				91	88
	DS654SRW 🗐				111	112
	DS743SRW 🗐				109	110
	25R61 (awned) 🗐					93
	25R74 (awned) 🐽					112
hrw	AC Morley	96	95	95	93	99
	AC Sampson	92	91	90	87	85
	Princeton	99	99	99	101	101
	Priesley	105	106	106	109	106
	Gallus (awned) 🐽	102	102	103	105	104
	JDC78 (awned)				104	102
Means (t	-	5.86	6.05	6.00	6.18	5.72
Means (b	•	87	90	89	92	85
Location-	years	30	23	19	14	7

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

<sup>&</sup>lt;sup>2</sup> Area I and II combined: see map of areas on www.gocereals.ca website.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

Table 1a - Ontario Winter Wheat Performance Trial - Cumulative Yield Indices<sup>1</sup>, Intensive trials Summary for Area I & II Combined<sup>2</sup>, OCCC, August 2017

			5-Year Index Fungicides		ar Index gicides		ar Index gicides		r Index gicides		Index gicides
Class <sup>3</sup>	Variety	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
SWW	Ava									95 <sup>4</sup>	106
	25W31 (awned) 👵					91	105	88	103	84	106
srw	Emmit	91	106	89	104	86	106	84	105	80	107
	Branson	102	109	102	109	103	109	103	109	104	111
	Wave	94	103	92	101	91	102	90	102	84	103
	CM614	99	108	99	106	99	107	98	107	96	109
	WB425 (awned) 💿	98	104	97	104	96	104	96	103	93	104
	CM249 (awned)	99	109	98	107	97	109	98	110	94	111
	25R34 (awned)	103	112	102	110	101	109	102	108	101	110
	25R40 (awned)	105	113	105	112	105	112	106	112	107	117
	HY 412-SRW 🐽	96	105	95	104	95	104	94	102	92	104
	Emperor 🕦	94	106	92	106	91	106	90	106	83	107
	OAC Flight (awned) 🐽	90	107	88	106	84	105	82	107	79	111
	Marker	99	109	101	109	100	109	101	109	98	111
	UGRC Ring (awned)	100	111	100	111	100	111	102	111	98	113
	25R46 (awned)					83	106	80	107	76	110
	Cruze (awned)					97	107	97	108	93	109
	DS572SRW 🐠					96	112	95	114	92	116
	Drew (awned)							87	106	81	109
	DS654SRW							105	111	105	113
	DS743SRW 🕦							102	108	102	110
	25R61 (awned)									87	110
	25R74 (awned)									104	111
hrw	AC Morley	93	101	92	99	92	99	90	96	92	101
	AC Sampson	87	96	87	95	85	95	83	95	78	94
	Princeton	93	103	93	102	92	101	94	102	94	104
	Priesley	99	105	100	105	99	105	100	106	98	107
	Gallus (awned)	95	101	96	100	96	101	98	102	94	100
B.A	JDC78 (awned)	F 65	6.22	F 05	6.50	F = 4	C 45	98	107	95	109
Means (t/		5.65 84	6.30	5.85	6.50	5.74	6.45	5.99	6.71	5.59	6.53
Means (bu	•	_	94 25	87	97 19	85	96 15	89	100	83	97 6
Location-y	/edis		25		19		12	11		6	

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

The OCCC thanks the Grain Farmers of Ontario, BASF, Bayer and Syngenta for their financial support towards the intensive trials.

<sup>&</sup>lt;sup>2</sup> Area I and II combined: see map of areas on www.gocereals.ca website.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hww = hard white winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years. Fungicide treatments included a T1 application of foliar fungicide at Zadoks Growth Stage 30 to 31, followed by a T3 application of fusarium fungicide during flowering.

Table 2 - Ontario Winter Wheat Performance Trial; Cumulative Yield Index<sup>1</sup>
Summary for Area I <sup>2</sup>, OCCC, August 2017

Class <sup>3</sup>	Variety	5 year	4 year	3 year	2 year	2017
sww	25W31 (awned) 🕚			101 4	99	101
	Ava					98
	E0028W					96
srw	Emmit	97	95	93	91	94
	Branson	103	103	104	104	102
	Wave	99	97	96	97	100
	CM614	104	103	104	103	105
	WB425 (awned) 🕛	100	101	102	101	98
	CM249 (awned)	105	104	104	104	104
	25R34 (awned)	108	107	107	108	103
	25R40 (awned)	110	111	111	114	110
	HY 412-SRW 🕦	100	98	98	98	98
	Emperor 🖤	98	98	97	97	97
	OAC Flight (awned)	96	95	91	87	96
	Marker	103	104	103	105	103
	UGRC Ring (awned)	105	106	106	107	104
	25R46 (awned)		96	93	90	92
	Cruze (awned)			107	108	104
	DS572SRW 🕦			102	102	107
	Drew (awned)				96	95
	DS654SRW (9)				108	103
	DS743SRW (9)				106	104
	25R61 (awned) (9) 25R74 (awned) (9)					98
	,	0.5	0.4	0.2	00	104
hrw	AC Sampson	95 01	94	93	90 97	96 86
	AC Sampson Princeton	91 99	90 97	88 97	87 97	86
	Princeton Priesley	99 103	97 103	97 104	97 106	100 100
	Gallus (awned)	98	98	99	100	96
	JDC78 (awned)	30	30	ככ	100	96 105
Means (t/	· ·	6.00	6.19	6.08	6.24	6.25
Means (bu	•	89	92	91	93	93
Location-\	/ears	13	10	8	6	3

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

<sup>&</sup>lt;sup>2</sup> Area I : see map of areas on www.gocereals.ca website

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

PBR Status; indicates varieties protected under PBR 91. Visit pbrfacts.ca to learn more.

Table 2a - Ontario Winter Wheat Performance Trial - Cumulative Yield Indices<sup>1</sup>, Intensive trials Summary for Area I<sup>2</sup>, OCCC, August 2017

			ar Index gicides		ar Index gicides		ar Index gicides		ar Index gicides		7 Index gicides
Class <sup>3</sup>	Variety	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
SWW	Ava									944	100
	E0028W									91	106
	25W31 (awned) 🕦					99	106	97	102	98	103
srw	Emmit	94	103	91	102	89	102	89	102	90	102
	Branson	99	105	99	105	100	106	100	104	99	104
	Wave	96	102	94	100	94	100	95	100	96	103
	CM614	100	107	99	105	100	106	99	104	101	106
	WB425 (awned) 👵	95	103	96	104	96	104	95	100	94	100
	CM249 (awned)	102	107	100	106	100	106	101	106	101	106
	25R34 (awned)	104	111	102	109	102	109	103	106	100	105
	25R40 (awned)	106	112	106	111	106	110	108	110	107	110
	HY 412-SRW 🗐	96	103	94	100	93	100	94	101	95	102
	Emperor 🕦	94	104	94	104	93	105	94	105	94	106
	OAC Flight (awned)	94	107	93	106	89	104	86	103	92	108
	Marker	100	106	100	107	99	108	103	107	101	107
	UGRC Ring (awned)	101	109	101	109	101	109	103	108	101	109
	25R46 (awned)			94	107	91	106	89	106	89	105
	Cruze (awned)					101	107	103	108	101	106
	DS572SRW 🗐					99	111	99	109	102	110
	Drew (awned)							93	107	91	105
	DS654SRW							103	105	100	103
	DS743SRW							101	105	100	104
	25R61 (awned)									95	108
	25R74 (awned) 🗓									101	106
hrw	AC Morley	93	99	91	97	92	98	89	93	92	96
	AC Sampson	87	95	87	95	85	94	85	95	83	94
	Princeton	95	100	93	99	92	99	93	97	97	100
	Priesley	99	103	99	102	100	102	102	102	96	98
	Gallus (awned) 🕦	94	99	94	99	94	99	96	99	93	95
	JDC78 (awned)							104	109	102	106
Means (t/		5.87	6.41	6.03	6.57	5.86	6.43	5.99	6.47	6.25	6.80
Means (b		87	95	90	98	87	96	89	96	93	101
Location-	Years		12		9		7	5			3

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

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<sup>2</sup> Area I: see map of areas on www.gocereals.ca website.

<sup>3</sup> sww = soft white winter, srw = soft red winter, hww = hard white winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years. Fungicide treatments included a T1 application of foliar fungicide at Zadoks Growth Stage 30 to 31, followed by a T3 application of fusarium fungicide during flowering.

Table 3 - Ontario Winter Wheat Performance Trial; Cumulative Yield Index<sup>1</sup> Summary for Area II <sup>2</sup>, OCCC, August 2017

Class <sup>3</sup>	Variety	5 year	4 year	3 year	2 year	2017
sww	Ava	105 <sup>4</sup>	106	106	106	106
	25W31 (awned) 🐠			91	86	81
srw	Emmit	95	91	89	86	80
	Branson	111	111	112	114	119
	Wave	99	96	95	94	85
	CM614	104	105	105	106	103
	WB425 (awned) 🐚	106	104	104	106	105
	CM249 (awned)	103	102	102	104	99
	25R34 (awned)	110	109	109	111	113
	25R40 (awned)	111	111	113	114	119
	HY 412-SRW 🐠	103	103	104	101	103
	Emperor 🐠	99	95	94	92	85
	OAC Flight (awned)	89	84	82	77	71
	Marker	106	107	106	107	106
	UGRC Ring (awned)	105	106	106	109	107
	25R46 (awned)		82	82	78	73
	Cruze (awned)			100	101	95
	DS572SRW 💯			99	98	92
	Drew (awned)				87	83
	DS654SRW (9)				114	120
	DS743SRW 🕦				112	116
	25R61 (awned) (9)					90
	25R74 (awned) 🕦					118
hrw	AC Morley	97	96	96	96	101
	AC Sampson	92	92	91	87	84
	Princeton	99	100	101	105	102
	Priesley	107	109	107	111	112
	Gallus (awned)	104	105	105	109	109
	HY 301-HRW	100	101	100	103	103
	JDC78 (awned)				101	100
Means (t/	•	5.76	5.94	5.94	6.14	5.34
Means (bu	· · · · · ·	86	88	88	91	79 4
Location-\	rears	17	13	11	8	4

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

<sup>2</sup> Area II: see map of areas on www.gocereals.ca website.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of

Table 3a - Ontario Winter Wheat Performance Trial - Cumulative Yield Indices<sup>1</sup>, Intensive Trials

Summary for Area II <sup>2</sup>, OCCC, August 2017

			ır Index gicides		r Index gicides		ar Index gicides		ar Index gicides	_	Index gicides
Class <sup>3</sup>	Variety	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
SWW	Ava 25W31 (awned) 🗓	99⁴	109	101	109	100 85	109 104	98 80	108 104	95 70	111 109
srw	Emmit Branson	89 104	108 113	86 105	107 113	83 106	108 113	80 106	108 112	70 108	113 119
	Wave	92	103	90	101	88	103	86	104	72	102
	CM614 WB425 (awned) 🕦	97 100	108 106	99 98	107 104	98 96	109 104	97 96	110 106	92 92	112 108
	CM249 (awned) 25R34 (awned)	96 103	110 112	95 102	109 110	95 101	111 109	96 102	113 111	88 101	116 115
	25R40 (awned)	104	114	104	113	105	114	105	114	107	124
	HY 412-SRW (9) Emperor (9)	96 94	107 108	96 91	106 107	97 89	107 107	93 86	104 106	90 72	106 107
	OAC Flight (awned) 💿 Marker	87 99	107 112	84 101	106 112	81 100	106 110	78 98	110 111	66 95	114 116
	UGRC Ring (awned)	98	113	100	112	100	112	101	114	95	116
	25R46 (awned) Cruze (awned)					77 93	106 107	73 93	109 108	62 84	114 112
	DS572SRW (1) Drew (awned)					94	114	93 82	117 106	81 71	122 112
	DS654SRW 🗓							107	116	110	123
	DS743SRW (9) 25R61 (awned) (9) 25R74 (awned) (9)							102	109	104 80 107	117 112 117
hrw	AC Morley AC Sampson	92 87	103 97	92 88	101 96	92 86	101 96	91 81	99 95	92 74	107 95
	Princeton Priesley	92 99	106 107	93 101	105 108	92 98	104 107	96 99	107 109	92 100	107 116
	Gallus (awned) 99 HY 301-HRW 99	97 94	102 97	97 95	101 97	97 93	107 103 98	99 96	104 100	95 93	105 101
D.4 (1.7)	JDC78 (awned)	5.45	6.24	5.70	6.42	F. C.A.	6.46	92	106	88	113
Means (bu)	Means (t/ha) Means (bu/ac) Location-Years		6.21 92 13	5.70 85	6.43 96 10	5.64 84	6.46 96 8	6.00 89	6.90 103 6	4.94 74	6.27 93 3

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

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<sup>2</sup> Area II: see map of areas on www.gocereals.ca website.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hww = hard white winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years. Fungicide treatments included a T1 application of foliar fungicide at Zadoks Growth Stage 30 to 31, followed by a T3 application of fusarium fungicide during flowering.

Table 4 - Ontario Winter Wheat Performance Trial; Cumulative Yield Index<sup>1</sup> Summary for Area III <sup>2</sup>, OCCC, August 2017

Class <sup>3</sup>	Variety	5 year	4 year	3 year	2 year	2017
SWW	Ava 25W31 (awned)	102 4	101	101	99	94 96
srw	Emmit	102	101	102	104	98
	Branson	104	104	104	107	111
	CM614	106	105	105	104	94
	WB425 (awned)	99	98	98	94	101
	CM249 (awned)	103	102	102	102	102
	HY 412-SRW 🕦	103	101	102	101	99
	Emperor 🗐	96	96	95	96	96
	OAC Flight (awned) 🕚	95	96	96	95	98
	Marker	103	104	104	105	103
	UGRC Ring (awned)	107	107	108	109	106
	Cruze (awned)			99	99	107
	DS572SRW 🕚			104	106	101
	Drew (awned)				99	100
	DS654SRW 🗐				106	112
	DS743SRW 🕦				105	103
	25R34 (awned)					97
	25R40 (awned)					107
	25R46 (awned)					100
	25R61 (awned) (9)					102
	25R74 (awned) (9)					109
hrw	AC Morley	96	95	95	95	89
	AC Sampson	93	92	90	88	85
	Princeton	94	96	95	96	89
	Priesley	101	101	99	96	96
	Gallus (awned)	99	98	97	101	104
	HY 301-HRW (9)	93	94	95	94	100
D.4 /1 /	JDC78 (awned)	F 44	5.25	5.22	96	104
Means (t/ Means (bu	-	5.44 81	5.25 78	5.22 78	5.58 83	6.84
Location-Y	•	10	78 9	78 7	83 4	102 2
LUCATION-1	cars	10	9	,	4	۷

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

<sup>2</sup> Area III : see map of areas on www.gocereals.ca website.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

Table 4a - Ontario Winter Wheat Performance Trial - Cumulative Yield Indices<sup>1</sup>, Intensive Trials Summary for Area III <sup>2</sup>, OCCC, August 2017

			Index gicides
Class <sup>3</sup>	Variety	No	Yes
SWW	Ava 25W31 (awned) 📵	87 <sup>4</sup> 98	102 101
srw	Emmit Branson CM614	105 106 76	113 112 91
	WB425 (awned) CM249 (awned)	97 95	118 102
	25R34 (awned) 25R40 (awned) HY 412-SRW	92 99 96	106 112 104
	Emperor (9) OAC Flight (awned) Marker	97 101 105	104 103 109
	UGRC Ring (awned) 25R46 (awned)	103 102 104	111 110
	Cruze (awned) DS572SRW	108 108	108 104
	Drew (awned) DS654SRW  DS743SRW	98 103 93	103 112 106
	25R61 (awned) (1) 25R74 (awned) (1)	105 109	113 104
hrw	AC Morley AC Sampson	89 81	88 102
	Princeton Priesley Callus (aumed)	84 88 99	108 100 103
	Gallus (awned) (1) HY 301-HRW (1) JDC78 (awned)	99 92 97	95 104
Means (t/ha) Means (bu/ac Location-Year	:)	6.74 100	7.28 108 1

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

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<sup>2</sup> Area II: see map of areas on www.gocereals.ca website.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hww = hard white winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years. Fungicide treatments included a T1 application of foliar fungicide at Zadoks Growth Stage 30 to 31, followed by a T3 application of fusarium fungicide during flowering.

Table 5a - Ontario Winter Wheat Performance Trials; Varietal Characteristics Based on Data from Area I OCCC, August 2017

	Fusar	ium Dat	a	Test Weight	Protein	1000 Kernel Weight	Height	Heading Date <sup>3</sup>	Leaf Rust	Leaf Septoria	Stripe Rust
Variety	Combined Fusarium Rating <sup>1</sup>	Don Rating <sup>1</sup>	Years	(kg/hL)	(%)	(g)	(cm)	(JD)	(0-9) <sup>2</sup>	(0-9) <sup>2</sup>	(0-9) <sup>2</sup>
Ava	MR	MR	9	75.0	9.7	34.9	101	150	2.3	2.1	0.5
E0028W	HS	HS	8	72.6	10.4	39.5	89	146	3.0	2.3	5.0
25W31 🐠	MS	S	3	76.3	10.7	32.4	93	148	1.7	2.1	2.8
Emmit	MS	MS	9	73.4	10.3	34.2	92	148	2.3	2.4	4.4
Branson	S	MS	9	74.5	10.7	36.1	88	145	2.3	2.1	0.9
Wave	S	MS	9	75.8	10.7	33.3	100	146	2.3	2.8	3.2
CM614	MS	MS	8	77.3	10.2	37.4	99	146	1.7	2.5	1.3
WB425 👱	MS	MS	7	76.0	10.2	32.6	90	145	4.3	1.7	0.0
CM249	S	MS	7	74.9	10.4	37.3	98	147	2.3	2.7	1.1
25R34	MS	MR	6	74.5	9.8	38.4	89	147	2.3	2.3	0.5
25R40	S	S	6	75.9	10.3	38.4	85	146	4.0	2.0	0.7
HY 412-SRW 🙍	S	S	6	78.0	10.4	36.4	95	152	1.3	3.0	1.3
Emperor	MS	MR	6	74.6	10.5	35.0	99	145	2.3	2.2	4.5
OAC Flight 🚇	S	S	7	73.6	10.0	32.6	92	147	2.3	2.3	5.1
Marker	MR	MR	5	72.9	9.8	30.8	97	147	2.0	1.9	1.5
UGRC Ring	MS	MR	5	74.2	10.0	37.4	95	146	2.3	2.5	1.2
25R46	MS	MS	4	74.3	10.5	32.1	85	147	1.7	1.8	6.7
Cruze	MS	MR	3	77.1	10.3	35.5	89	146	2.3	3.1	2.6
DS572SRW 🖗	S	HS	3	76.6	9.9	41.1	105	148	2.3	2.0	2.3
Drew	MS	MR	2	74.5	10.7	31.7	90	145	1.7	2.4	4.4
DS654SRW 🐽	S	S	2	74.4	9.5	36.0	97	147	1.0	2.5	0.5
DS743SRW 🐽	MS	MS	2	78.1	10.1	35.8	99	148	1.3	1.9	0.1
25R61 🚇	MR	MR	1	72.2	10.7	31.5	89	145	3.0	2.5	3.5
25R74 👱	MR	MR	1	74.8	10.6	31.7	81	145	2.7	2.0	0.6
AC Morley	MR	MR	9	77.9	11.3	34.5	119	148	1.3	1.9	2.1
AC Sampson	S	S	9	74.7	10.6	35.3	96	150	4.7	2.5	2.3
Princeton	S	S	9	78.2	10.8	44.3	105	148	1.3	2.4	1.4
Priesley	S	MS	8	75.1	11.1	38.5	84	148	2.0	2.0	0.1
Gallus 🌘	MS	S	7	77.4	11.0	43.2	93	147	1.7	1.6	0.0
JDC78	S	S	2	73.9	11.1	36.5	87	147	4.7	1.6	1.2
Means				75.3	10.4	35.8	94	147	2.4	2.2	2.1
Locations				3	3	3	3	2	1	3	2

For traits not reported on this table see other area trait tables or previous year's performance trials. Not all traits are expressed in any given year or area. Head to Head comparisons on GoCereals.ca website give multi-year data for trait characteristics.

 $\label{eq:main_moderately} \textit{MR=moderately resistant (best)}; \ \textit{MS=moderately susceptible}; \ \textit{S=susceptible}; \ \textit{HS=highly susceptible (worst)}.$ 

<sup>1</sup> Combined Fusarium Ratings are based on BOTH Fusarium head blight ratings and deoxynivalenol (DON) levels from inoculated provincial trials.

DON Ratings are based only on DON levels from inoculated provincial trials.

<sup>2</sup> For ratings 0-9, a high score is undesirable.

<sup>3</sup> Heading may vary from year to year and should only be used to indicate relative differences.

n= PBR Status; indicates varieties protected under PBR 91. Visit pbrfacts.ca to learn more.

Table 5b - Ontario Winter Wheat Performance Trials; Varietal Characteristics Based on Data from Area II OCCC, August 2017

					occc, Aug						
Variety	Fusar	ium Dat	a	Test Weight	Protein	1000 Kernel Weight	Height	Heading Date <sup>3</sup>	Powdery Mildew	Leaf Septoria	Stripe Rust
variety	Combined Fusarium Rating <sup>1</sup>	Don Rating <sup>1</sup>	Years	(kg/hL)	(%)	(g)	(cm)	(JD)	(0-9) <sup>2</sup>	(0-9) <sup>2</sup>	(0-9) <sup>2</sup>
Ava	MR	MR	9	73.1	9.1	36.7	100	159	2.6	2.4	2.3
25W31 🌘	MS	S	3	73.6	10.1	29.1	90	158	4.4	1.9	3.4
Emmit	MS	MS	9	73.6	9.6	34.2	91	159	3.3	2.5	5.8
Branson	S	MS	9	75.2	9.2	38.5	89	155	2.7	1.5	0.8
Wave	S	MS	9	74.7	10.6	33.5	96	157	3.4	3.0	4.5
CM614	MS	MS	8	75.1	10.1	38.4	96	157	2.6	1.9	2.8
WB425 🐽	MS	MS	7	75.1	9.0	34.7	90	157	1.0	1.6	2.0
CM249	S	MS	7	73.4	9.6	38.2	95	157	3.3	3.0	4.0
25R34	MS	MR	6	74.5	9.5	40.2	90	157	4.6	2.3	1.1
25R40	S	S	6	74.9	9.0	41.2	84	157	1.4	1.9	0.9
HY 412-SRW 📵	S	S	6	75.6	9.8	36.5	93	161	2.4	2.2	2.9
Emperor 🖗	MS	MR	6	71.4	10.2	34.7	97	156	4.1	3.4	5.8
OAC Flight 👱	S	S	7	70.4	9.9	32.5	94	158	3.0	2.5	6.3
Marker	MR	MR	5	74.3	9.4	33.8	94	158	3.8	1.9	2.4
UGRC Ring	MS	MR	5	72.7	9.0	39.8	97	157	3.1	2.2	2.6
25R46	MS	MS	4	70.4	9.4	32.2	84	157	3.3	2.1	6.4
Cruze	MS	MR	3	75.1	10.0	38.7	89	156	3.3	1.9	3.2
DS572SRW 📵	S	HS	3	74.7	9.1	42.5	105	157	1.4	2.2	4.5
Drew	MS	MR	2	70.7	10.2	29.5	86	156	2.3	2.4	4.9
DS654SRW 🚇	S	S	2	75.5	8.5	41.7	98	157	4.3	2.3	1.0
DS743SRW 👱	MS	MS	2	77.4	9.4	38.9	99	158	3.8	1.9	1.8
25R61 🚇	MR	MR	1	72.5	9.6	34.1	93	157	3.9	2.2	3.7
25R74 🐠	MR	MR	1	73.3	9.5	34.1	80	156	2.1	1.1	0.5
AC Morley	MR	MR	9	77.4	10.5	38.2	116	159	2.1	1.9	3.2
AC Sampson	S	S	9	72.8	10.7	38.0	99	162	2.4	2.8	4.3
Princeton	S	S	9	77.3	10.2	45.9	102	158	4.8	2.5	1.6
Priesley	S	MS	8	74.2	9.6	41.6	85	158	0.7	1.8	0.6
Gallus 📵	MS	S	7	77.5	10.4	47.2	95	157	2.6	1.4	0.6
HY 301-HRW 👰	S	MS	6	77.3	10.9	35.9	93	158	1.1	3.6	1.4
JDC78	S	S	2	72.5	10.5	39.9	86	158	5.1	2.3	1.2
Means				74.2	9.8	37.3	93	157	3.0	2.2	2.9
Locations				4	2	4	4	4	3	3	4

For traits not reported on this table see other area trait tables or previous year's performance trials. Not all traits are expressed in any given year or area. Head to Head comparisons on GoCereals.ca website give multi-year data for trait characteristics.

<sup>1</sup> Combined Fusarium Ratings are based on BOTH Fusarium head blight ratings and deoxynivalenol (DON) levels from inoculated provincial trials.

DON Ratings are based only on DON levels from inoculated provincial trials.

MR=moderately resistant (best); MS=moderately susceptible; S=susceptible; HS=highly susceptible (worst).

<sup>2</sup> For ratings 0-9, a high score is undesirable.

<sup>3</sup> Heading may vary from year to year and should only be used to indicate relative differences.

<sup>🌆 =</sup> PBR Status; indicates varieties protected under PBR 91. Visit pbrfacts.ca to learn more.

Table 5c - Ontario Winter Wheat Performance Trials; Varietal Characteristics Based on Data from Area III OCCC, August 2017

Variety	Fusa	rium Data	1	Test Weight	Protein	1000 Kernel Weight	Winter Survival	Height	Heading Date <sup>3</sup>	Leaf Rust	Leaf Septoria	Straw Yield Index
variety	Combined Fusarium Rating <sup>1</sup>	Don Rating <sup>1</sup>	Years	(kg/hL)	(%)	(g)	(%)	(cm)	(DI)	(0-9) <sup>2</sup>	(0-9) <sup>2</sup>	
Ava	MR	MR	9	75.0	10.6	33.0	96	98	161	3.0	2.0	86
25W31 🗓	MS	S	3	74.0	11.7	26.9	93	87	158	2.3	3.5	102
Emmit	MS	MS	9	73.3	11.1	33.4	97	95	159	2.6	4.3	99
Branson	S	MS	9	75.2	10.7	35.6	98	86	155	1.3	2.9	88
CM614	MS	MS	8	75.6	13.1	35.5	97	91	160	0.9	3.0	79
WB425 📵	MS	MR	7	76.7	10.4	29.7	98	90	157	5.3	2.5	66
CM249	S	MS	7	75.4	12.3	37.3	98	94	158	3.5	1.9	92
25R34	MS	MR	6	73.3	11.4	33.0	97	89	159	2.8	3.0	129
25R40	S	S	6	73.8	10.4	37.6	97	78	159	3.5	2.3	87
HY 412-SRW 👳	S	S	6	75.1	10.2	34.7	97	93	162	1.6	3.8	112
Emperor	MS	MR	6	75.3	10.9	32.6	97	98	158	0.6	4.8	104
OAC Flight 🐽	S	S	7	74.3	10.7	32.4	95	89	158	3.5	5.5	89
Marker	MR	MR	5	73.4	9.9	30.7	96	91	159	2.8	3.3	135
UGRC Ring	MS	MR	5	73.9	10.1	36.4	96	95	158	4.0	3.8	95
25R46	MS	MS	4	73.4	9.9	31.4	96	83	158	4.3	5.7	77
Cruze	MS	MR	3	76.6	12.9	35.0	98	88	157	0.9	4.5	102
DS572SRW 🕖	S	HS	3	75.5	10.5	41.1	98 97	99	158	5.8	2.3	115
Drew	MS	MR	2	74.4	13.1	30.5		86	157	4.3	3.8	93
DS654SRW (9)	S	S	2	75.9	10.2	38.0	98	95	159	0.8	1.3	109
DS743SRW (9) 25R61 (9)	MS MR	MS MR	2	78.6 73.4	11.4 11.1	37.0 30.8	97 97	94 92	160 159	1.5 3.5	2.8 3.8	114 102
25R74 n	MR	MR	1	73.4 74.1	11.1	29.9	98	92 81	156	2.8	2.0	102
AC Morley	MR	MR	9	75.7	12.2	34.1	97	109	160	4.7	3.3	143
AC Sampson	S	S	9	72.9	12.5	35.0	97	99	162	5.0	3.3	79
Princeton	S	S	9	75.7	11.6	39.7	91	98	161	1.0	3.8	79
Priesley	S	MS	8	73.3	12.8	37.4	96	82	160	1.1	2.3	66
Gallus 🖍	MS	S	7	76.6	14.2	41.8	98	92	159	2.6	2.3	124
HY 301-HRW 📵	S	MS	6	76.1	12.6	32.4	98	90	159	0.4	3.8	117
JDC78	S	S	2	72.6	13.2	37.2	97	87	159	1.9	2.0	110
Means				74.8	11.5	34.5	97	91	159	2.7	3.2	2.84 t/ha
Locations				2	1	2	2	2	1	1	1	1

For traits not reported on this table see other area trait tables or previous year's performance trials. Not all traits are expressed in any given year or area. Head to Head comparisons on GoCereals.ca website give multi-year data for trait characteristics.

MR=moderately resistant (best); MS=moderately susceptible; S=susceptible; HS=highly susceptible (worst).

<sup>1</sup> Combined Fusarium Ratings are based on BOTH Fusarium head blight ratings and deoxynivalenol (DON) levels from inoculated provincial trials.

DON Ratings are based only on DON levels from inoculated provincial trials.

<sup>2</sup> For ratings 0-9, a high score is undesirable.

<sup>3</sup> Heading may vary from year to year and should only be used to indicate relative differences.

Table 6 - Ontario Winter Wheat Performance Trial; Cumulative Yield Index<sup>1</sup> Summary for AreaV <sup>2</sup>, OCCC, August 2017 <sup>5</sup>

Class <sup>3</sup>	Variety	3 year	2 year	1 Year
SWW	Ava	104 4	105	98
srw	CM614	97	98	98
	HY 412-SRW 🕦	107	109	114
	UGRC C2-5		98	102
	DS572SRW 🐠		105	98
	DS654SRW 🐽			96
	DS743SRW 🖭			99
	Curtis 🕦			102
hrw	Princeton	95	94	93
	Priesley	105	102	104
	Gallus (awned) 🐠	90	88	86
Means (t/ha)		7.99	7.99	7.52
Means (bu/ac)		119	119	112
Location-Years		4	3	1

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

<sup>&</sup>lt;sup>5</sup> Data for 2016 presented as 2017 trial did not survive.



<sup>&</sup>lt;sup>2</sup> Area V: see map of areas on www.gocereals.ca/variety trial.php.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

Table 6a - Ontario Winter Wheat Performance Trial - Cumulative Yield Indices<sup>1</sup>, Intensive Trials Summary for Area V<sup>2</sup>, OCCC, August 2017 <sup>5</sup>

		3-Year Index Fungicides		2-Year Index Fungicides		1-Year Index Fungicides	
Class <sup>3</sup>	Variety	No	Yes	No	Yes	No	Yes
SWW	Ava	104 <sup>4</sup>	101	99	95	99	92
srw	CM614	97	99	95	97	99	99
	HY 412-SRW 🕦	106	107	108	109	114	114
	UGRC C2-5					103	103
	DS572SRW 🕦					99	96
	DS654SRW 🐠					97	101
	DS743SRW 🕦					99	97
	Curtis (91)					103	101
hrw	Princeton	98	99	95	98	94	94
	Priesley	104	103	107	106	105	99
	Gallus (awned)	94	93	92	92	87	86
Means (t/ha) Means (bu/ac)		7.35 109	7.40 110	7.77 116	7.84 117	7.52 112	7.37 110
Location-Years		3		2		1	

<sup>&</sup>lt;sup>1</sup> Values differing by less than 3 within a column may not represent true differences in yield. Yield Indices are Heritability Adjusted Relative Values (HARV), which favour results from trial locations with high repeatability. For more information, see: Yan, W. Use of HARV in Variety Trial Summaries.

Fungicide treatments included a T1 application of foliar fungicide at Zadoks Growth Stage 30 to 31, followed by a T3 application of fusarium fungicide during flowering.

The OCCC thanks the Grain Farmers of Ontario, BASF, Bayer and Syngenta for their financial support towards the intensive trials.



<sup>&</sup>lt;sup>2</sup> Area V: see map of areas on www.gocereals.ca/variety trial.php.

<sup>&</sup>lt;sup>3</sup> sww = soft white winter, srw = soft red winter, hww = hard white winter, hrw = hard red winter.

<sup>&</sup>lt;sup>4</sup> Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

<sup>5</sup> Data for 2016 presented as 2017 trial did not survive.

Table 6b - Ontario Winter Wheat Performance Trials; Varietal Characteristics Based on Data from Area V

OCCC, August 2017 <sup>4</sup>

Varioty	Fusarium Data			Test Weight	Protein	1000 Kernel Weight	Lodging	Height	Heading Date <sup>3</sup>
Variety	Combined Fusarium Rating <sup>1</sup>	Don Rating <sup>1</sup>	Years	(kg/hL)	(%)	(g)	(0-9) <sup>2</sup>	(cm)	(JD)
Ava	MR	MR	9	82.3	11.7	35.3	0.5	109	171
CM614	MS	MS	8	82.1	12.0	38.7	1.8	103	170
HY 412-SRW 👳	S	S	6	82.2	11.9	35.9	0.0	97	171
UGRC C2-5	MR	MR	3	79.3	11.5	39.5	0.3	106	170
DS572SRW 🐽	S	HS	3	82.2	12.0	44.7	2.8	108	168
DS654SRW 🐽	S	S	2	80.5	11.4	37.3	0.8	101	169
DS743SRW 🐽	MS	MS	2	81.9	12.9	35.2	4.0	106	170
Curtis 🐽	HS	MS	1	82.3	12.2	39.5	2.5	102	168
Princeton	S	S	9	82.8	12.9	45.2	0.0	106	170
Priesley	S	MS	8	82.2	12.4	42.5	0.0	92	173
Gallus 🙍	MS	S	7	83.5	13.9	44.6	0.0	97	168
Means				81.9	12.2	39.9	1.1	102	170
Locations				1	1	1	1	1	1

For traits not reported on this table see other area trait tables or previous year's performance trials. Not all traits are expressed in any given year or area. Head to Head comparisons on GoCereals.ca website give multi-year data for trait characteristics.

MR=moderately resistant (best); MS=moderately susceptible; S=susceptible; HS=highly susceptible (worst).

<sup>4</sup> Data for 2016 presented as 2017 trial did not survive.



<sup>1</sup> Combined Fusarium Ratings are based on BOTH Fusarium head blight ratings and deoxynivalenol (DON) levels from inoculated provincial trials. DON Ratings are based only on DON levels from inoculated provincial trials.

<sup>2</sup> For ratings 0-9, a high score is undesirable.

<sup>3</sup> Heading may vary from year to year and should only be used to indicate relative differences.

**Table 7a - Ontario Winter Wheat Distributors** 

Class <sup>3</sup>	Variety	Distributor
SWW	Ava	Dow Seeds
	E0028W	SeCan Association
	25W31 (awned) 🕦	Pioneer Hi-Bred
srw	Emmit	Dow Seeds
	Branson	Dow Seeds
	Wave	SeCan Association
	CM614	C & M Seeds
	WB425 (awned) 🏻 🐽	C & M Seeds
	CM249 (awned)	C & M Seeds
	25R34 (awned)	Pioneer Hi-Bred
	25R40 (awned)	Pioneer Hi-Bred
	HY 412-SRW 😕	Dow Seeds
	Emperor 🐽	SeCan Association
	OAC Flight (awned) 🏻 🐽	Elite Seeds
	Marker	Bramhill Seeds
	UGRC Ring (awned)	Elite Seeds
	25R46 (awned)	Pioneer Hi-Bred
	Cruze (awned)	C & M Seeds
	DS572SRW 🐽	Dow Seeds
	Drew (awned)	C & M Seeds
	DS654SRW 🐠	Dow Seeds
	DS743SRW 🐽	Dow Seeds
	25R61 (awned) 🌘	Pioneer Hi-Bred
	25R74 (awned) 🗓	Pioneer Hi-Bred
hrw	AC Morley	Advantage Seed Growers
	AC Sampson	Bramhill Seeds
	Princeton	C & M Seeds
	Priesley	C & M Seeds
	Gallus (awned) 💮	C & M Seeds
	HY 301-HRW 🐽	Dow Seeds
	JDC78 (awned)	C & M Seeds

<sup>&</sup>lt;sup>1</sup> sww = soft white winter, srw = soft red winter, hrw = hard red winter.

<sup>91 =</sup> PBR Status; indicates varieties protected under PBR 91. Visit pbrfacts.ca to learn more.

 Table 7b - Ontario Winter Wheat Distributor/Sponsor Contact Information

Distributor	Address			
Advantage Seed Growers	P.O. Box 351, Lucknow, ON, NOG 2H0			
	Tel: 519-440-6406 Fax: 519-812-1010			
	Internet: www.advantageseeds.com			
Bramhill Seeds	5220 Hwy 23, RR#2, Palmerston, ON, NOG 2P0			
	Tel: 519-343-3630 Fax: 519-343-2037			
	Internet: www.bramhillseeds.com			
C&M Seeds	6180 5th Line, Palmerston, ON, NOG 2P0			
	Tel: 1-888-733-9432 Fax: 519-343-3792			
	Internet: www.redwheat.com			
Dow Seeds	P.O. Box 1090, 5 Hyland Drive Blenheim, ON, NOP 1A0			
	Tel: 519-676-8146 Fax: 519-676-6800			
	Internet: www.dowseeds.com			
Elite Seeds	Available through your local Agromart			
	Tel: 519-282-6701			
	Internet: www.eliteseeds.ca			
Pioneer Hi-Bred	Box 730, 7398 Queen's Line, Chatham, ON, N7M 5L1			
	Tel: 1-800-265-9435			
	Internet: www.pioneer.com			
SeCan Association	400-300 Terry Fox Drive, Kanata, ON, K2K 0E3			
	Tel: 1-866-797-7874 Fax: 613-592-9497			
	Internet: www.secan.com			