

Ontario Winter Wheat Performance Trial 2003

***Ministry of Agriculture and Food
Crop Technology Branch***



***Prepared by the Ontario Cereal Crop Committee
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This report contains the most recent varietal information on winter wheat that was planted in 2002 and harvested in 2003.

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**Table 1 - Ontario Winter Wheat Performance Trial 2003; Cumulative Yield Index¹
Summary for Area I & II Combined² OCCC August, 2003.**

Cultivar	Class³	5 year	4 year	3 year	2 year	1 year
AC Ron	Sww	102	102	104	102	101
AC Cartier ⁵	sww	96	96	95	97	98
25W33 ⁵	sww-a	102	102	101	99	97
Superior	sww	104	104	104	102	104
25W60 ⁵	sww-a	105	106	105	105	104
AC MacKinnon	sww	101	102	105	102	107
AC Mountain	sww	99	100	100	101	101
AC Essex	sww	101	102	103	104	104
Caledonia	sww	101	101	99	101	94
Whitby	sww		101	101	99	97
TW060.075	sww					105
OTF013.081	sww-a					91
TWF020.038	sww-a					105
Stealth ⁵	srw	102	102	102	98	99
Wisdom	srw	102	104	102	100	101
Webster	srw			105	105	102
Warwick	srw			102	101	103
25R49	srw			106	106	102
PRO 202SRW	srw-a			99	96	96
Whitney	srw			101	102	99
Sisson	srw			98	94	98
25R26 ⁵	srw-a				102	96
25R23	srw-a				106	109
Vienna	srw				108	107
Kristy	srw				103	105
Wonder	srw-a				101	98
25R47	srw-a					117
VA98W.586	srw					99
Fundulea ⁵	hrw	92	92	90	89	86
AC Morley	hrw	100	100	100	97	99
Maxine	hrw-a	98	101	98	97	98
Platinum	hrw-a		89	91	86	88
Warthog	hrw			97	97	96
Harvard	hrw				105	104
Carlisle	hrw-a				101	100
AC Sampson	hrw				96	97
Mean (t/ha)		6.20	6.27	6.41	6.44	6.47
No. of locations		38	30	22	14	7

¹ Indexed for each site and then averaged. Index = 100 x (variety yield/site yield). Values differing by less than 3 within a column may not represent true differences in yield.

² AREA I & II Combined = 2900 West of Frontenac County

³ sww = soft white winter, srw = soft red winter, hrw = hard red winter, -a= awned.

Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

⁵ Entry has been dropped from the 2003/2004 Winter Wheat Performance Trial.

**Table 2 - Ontario Winter Wheat Performance Trial 2003; Cumulative Yield Index¹
Summary for Area I² OCCC August, 2003.**

Cultivar	Class ³	5 year	4 year	3 year	2 year	1 year
AC Ron	sww	102	100	103	100	99
AC Cartier ⁵	sww	95	95	93	97	94
25W33 ⁵	sww-a	102	102	101	100	100
Superior	sww	103	103	104	103	106
25W60 ⁵	sww-a	108	109	109	107	109
AC MacKinnon	sww	101	102	107	102	108
AC Mountain	sww	100	100	101	102	101
AC Essex	sww	100	101	102	102	101
Caledonia	sww	100	101	96	103	94
Whitby	sww		99	100	100	95
TW006.007 ⁵	sww				103	102
TW060.075	sww					106
OTF013.081	sww-a					89
TWF020.038	sww-a					104
PRC008 ⁵	sww					105
Stealth ⁵	srw	101	102	104	95	101
Wisdom	srw	101	105	101	99	102
Webster	srw			105	107	104
Warwick	srw			99	100	100
25R49	srw			107	109	105
PRO 202SRW	srw-a			98	96	96
Whitney	srw			101	103	100
Sisson	srw			98	94	101
25R26 ⁵	srw-a				106	101
25R23	srw-a				107	114
Vienna	srw				108	106
Kristy	srw				97	101
TW005.008 ⁵	srw				103	105
Wonder	srw-a				100	96
25R47	srw-a					118
VA98W.586	srw					98
PRC006 ⁵	srw					93
Fundulea ⁵	hrw	92	91	89	88	82
AC Morley	hrw	99	100	100	96	100
Maxine	hrw-a	96	102	97	95	99
Platinum	hrw-a		88	90	85	88
Warthog	hrw			98	97	96
Harvard	hrw				102	101
Carlisle	hrw-a				98	99
AC Sampson	hrw				97	97
TW98430 ⁵	hrw					85
Mean (t/ha)		6.24	6.38	6.45	6.45	7.23
No. of locations		15	12	9	6	3

¹ Indexed for each site and then averaged. Index = 100 x (variety yield/site yield). Values differing by less than 3 within a column may not represent true differences in yield.

² AREA I = 2900 Crop Heat Units or more.

³ sww = soft white winter, srw = soft red winter, hrw = hard red winter, -a= awned.

Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

⁵ Entry has been dropped from the 2003/2004 Winter Wheat Performance Trial.

**Table 3 - Ontario Winter Wheat Performance Trial 2003; Cumulative Yield Index¹
Summary for Area II² OCCC August, 2003.**

Cultivar	Class ³	5 year	4 year	3 year	2 year	1 year
AC Ron	sww	101	104	104	103	103
AC Cartier ⁵	sww	96	96	97	97	101
25W33 ⁵	sww-a	102	102	101	98	94
Superior	sww	104	104	103	101	101
25W60 ⁵	sww-a	102	102	101	102	98
AC MacKinnon	sww	100	101	103	102	105
AC Mountain	sww	97	99	99	100	101
AC Essex	sww	101	102	104	105	107
Caledonia	sww	102	101	101	99	94
Whitby	sww		103	101	97	98
TW006.007 ⁵	sww				105	106
TW060.075	sww					104
OTF013.081	sww-a					93
TWF020.038	sww-a					105
PRC008 ⁵	sww					103
Stealth ⁵	srw	102	102	100	100	97
Wisdom	srw	103	103	102	101	99
Webster	srw			104	103	100
Warwick	srw			104	102	105
25R49	srw			105	102	98
PRO 202SRW	srw-a			99	96	96
Whitney	srw			101	101	97
Sisson	srw			97	94	94
25R26 ⁵	srw-a				97	90
25R23	srw-a				105	103
Vienna	srw				108	108
Kristy	srw				108	108
TW005.008 ⁵	srw				102	97
Wonder	srw-a				101	100
25R47	srw-a					116
VA98W.586	srw					99
PRC006 ⁵	srw					111
Fundulea ⁵	hrw	92	92	91	90	89
AC Morley	hrw	100	100	99	97	97
Maxine	hrw-a	100	100	98	98	97
Platinum	hrw-a		90	92	87	88
Warthog	hrw			95	96	96
Harvard	hrw				107	107
Carlisle	hrw-a				103	101
AC Sampson	hrw				94	96
TW98430 ⁵	hrw					100
Mean (t/ha)		6.18	6.21	6.39	6.43	5.90
No. of locations		23	18	13	8	4

¹ Indexed for each site and then averaged. Index = 100 x (variety yield/site yield). Values differing by less than 3 within a column may not represent true differences in yield.

² AREA II = West of Frontenac between 2300 and 2900 Crop Heat Units, Area IV = The Dundalk Plains with less than 2500 heat units, use Area II data..

³ sww = soft white winter, srw = soft red winter, hrw = hard red winter, -a=awned.

Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

⁵ Entry has been dropped from the 2003/2004 Winter Wheat Performance Trial.

**Table 4 - Ontario Winter Wheat Performance Trial 2003; Cumulative Yield Index¹
Summary for Area III² OCCC August, 2003.**

Cultivar	Class ³	5 year	4 year	3 year	2 year	1 year
AC Ron	sww	102	102	101	100	101
AC Cartier ⁵	sww	106	107	107	103	107
25W33 ⁵	sww-a	100	100	99	104	101
Superior	sww	112	112	112	112	111
25W60 ⁵	sww-a	96	97	97	103	93
AC MacKinnon	sww	107	108	107	103	102
AC Mountain	sww	105	104	104	107	108
AC Essex	sww	107	105	105	103	103
Caledonia	sww	97	95	95	102	94
Whitby	sww		105	105	96	93
TW006.007 ⁵	sww				105	101
TW060.075	sww					109
OTF013.081	sww-a					96
TWF020.038	sww-a					106
PRC008 ⁵	sww					103
Stealth ⁵	srw	91	91	90	87	97
Wisdom	srw	104	104	104	103	101
Webster	srw			104	107	106
Warwick	srw			98	99	92
25R49	srw			99	102	98
PRO 202SRW	srw-a			98	94	96
Whitney	srw			103	102	99
Sisson	srw			104	102	102
25R26 ⁵	srw-a				83	90
25R23	srw-a				103	103
Vienna	srw				108	118
Kristy	srw				108	107
TW005.008 ⁵	srw				99	94
Wonder	srw-a				94	93
25R47	srw-a					118
VA98W.586	srw					104
PRC006 ⁵	srw					106
Fundulea ⁵	hrw	90	88	88	92	83
AC Morley	hrw	93	94	94	94	92
Maxine	hrw-a	91	92	92	90	82
Platinum	hrw-a		97	97	92	92
Warthog	hrw			98	97	96
Harvard	hrw				102	110
Carlisle	hrw-a				101	104
AC Sampson	hrw				102	102
TW98430 ⁵	hrw					86
Mean (t/ha)		5.60	5.72	5.74	6.46	7.54
No. of locations		6	5	5	3	1

¹ Indexed for each site and then averaged. Index = 100 x (variety yield/site yield). Values differing by less than 3 within a column may not represent true differences in yield.

² Area III = East of Frontenac between 2500 and 2900 Crop Heat Units. ** There were no yield data for Area III in 2000.

³ sww=soft white winter, srw=soft red winter, hrw=hard red winter, -a= awned.

³ Cultivar yield rankings may vary from year to year. Decisions are therefore best made using data with the greatest number of years.

⁵ Entry has been dropped from the 2003/2004 Winter Wheat Performance Trial.

Table 5 - Ontario Winter Wheat Varietal Characteristics Based on Data From Across Ontario 2003, OCCC August, 2003

Cultivar	Class	Test Weight (kg/hl)	1,000-Kernel Weight (g)	Winter Survival (%)	Lodging (0-9) ¹	Height (cm)	Heading Date ²	Powdery Mildew (0-9) ¹	Leaf Rust (0-9) ¹	Septoria (0-9) ¹	BYDV (0-9) ¹
AC Ron	sww	72.3	37	86	0.2	106	165	1.9	2.7	4.7	2.5
AC Cartier ⁵	sww	75.0	40	93	0.2	110	166	1.1	1.0	5.3	3.3
25W33 ⁵	sww-a	71.7	32	77	0.0	85	165	2.0	0.7	4.4	3.0
Superior	sww	74.1	40	82	0.0	102	167	2.2	2.7	3.7	2.8
25W60 ⁵	sww-a	73.2	35	79	2.5	94	164	2.4	1.3	4.2	3.8
AC MacKinnon	sww	73.5	38	81	0.1	102	164	2.6	1.7	5.2	3.0
AC Mountain	sww	72.4	37	89	1.2	104	165	2.5	3.0	4.9	2.5
AC Essex	sww	72.5	38	87	0.2	103	165	2.0	2.3	5.0	2.5
Caledonia	sww	71.9	39	73	0.8	89	165	2.3	3.3	4.7	2.8
Whitby	sww	72.3	39	84	0.0	106	166	1.4	1.7	5.1	3.3
TW006:007 ⁵	sww	72.2	36	88	0.9	106	165	2.2	0.7	4.0	2.3
TW060.075	sww	73.7	37	80	0.8	104	167	2.4	1.3	3.6	2.0
OTF013.081	sww-a	72.8	36	84	0.7	110	167	0.8	0.0	3.6	4.5
TWF020.038	sww-a	73.8	41	87	0.5	106	166	0.3	0.3	3.3	2.0
PRC008 ⁵	sww	72.7	36	81	1.1	103	164	2.0	2.7	4.9	3.0
Stealth ⁵	srw	75.3	36	70	0.0	95	166	4.8	0.7	4.0	3.3
Wisdom	srw	73.2	35	81	2.1	94	163	2.9	1.5	6.4	5.5
Webster	srw	73.6	36	81	2.3	97	165	2.5	1.3	4.5	3.5
Warwick	srw	75.1	39	87	1.7	96	163	2.3	0.0	4.6	3.3
25R49	srw	74.6	39	71	0.9	92	163	3.0	1.3	4.3	2.5
PRO 202SRW	srw-a	73.7	38	75	0.0	87	163	0.8	2.0	6.0	2.8
Whitney	srw	74.9	35	74	2.1	85	164	0.6	0.7	4.3	2.3
Sisson	srw	75.2	35	80	1.8	84	163	0.8	1.3	4.9	3.3
25R26 ⁵	srw-a	72.7	35	77	0.0	86	165	5.5	0.7	5.4	2.3
25R23	srw-a	75.2	37	75	0.0	93	165	2.8	1.0	3.5	3.3
Vienna	srw	75.2	35	82	0.9	98	164	0.2	0.7	3.7	2.5
Kristy	srw	74.8	38	80	0.5	94	163	0.9	0.3	5.0	3.3
TW005:008 ⁵	srw	75.8	35	73	3.1	96	165	1.0	0.0	3.3	2.0
Wonder	srw-a	76.0	41	78	2.2	94	163	1.4	4.0	5.6	6.8
25R47	srw-a	74.0	36	87	0.5	87	163	2.0	0.0	3.9	1.3
VA98W.586	srw	76.4	34	75	0.7	85	164	0.4	1.0	4.0	3.5
PRC006 ⁵	srw	69.9	34	91	1.6	112	167	0.8	0.7	4.6	2.8
Fundulea ⁵	hrw	76.8	34	85	0.2	96	167	4.4	0.3	5.0	6.8
AC Morley	hrw	77.7	38	79	0.8	114	166	0.8	0.0	3.2	3.0
Maxine	hrw-a	77.2	42	76	0.0	91	164	0.8	1.7	5.1	2.8
Platinum	hrw-a	78.3	38	87	0.4	115	169	0.8	1.7	4.1	3.3
Warthog	hrw	78.2	38	86	0.2	99	166	2.7	0.3	5.0	3.3
Harvard	hrw	78.0	42	88	0.2	100	163	0.9	1.3	4.9	5.0
Carlisle	hrw-a	77.7	45	87	0.1	89	162	1.6	1.0	5.5	2.0
AC Sampson	hrw	74.6	39	80	0.6	103	168	2.4	4.0	4.4	4.3
TW98430 ⁵	hrw	72.5	36	80	0.2	81	163	0.6	0.0	6.7	7.0
No. of locations		8	8	3	2	8	8	6	1	4	1

¹ For ratings 0-9, a high score is undesirable.

² Heading may vary from year to year and should only be used to indicate relative differences.

⁵ Entry has been dropped from the 2003/2004 Winter Wheat Performance Trial.

Table 6 - Varietal Fusarium Performance Data

Cultivar	Fusarium Head Blight Index (0-100) ¹		DON (ppm) ²	
	2 year	1 year	2 year	1 year
AC Ron	32.5	33.3	11.2	13.1
AC Cartier ⁵	32.1	34.6	13.7	17.2
25W33 ⁵	32.0	34.9	16.9	20.3
Superior	26.2	29.5	10	12.4
25W60 ⁵	41.0	51.1	21.9	26.8
AC MacKinnon	40.6	51.4	15.4	20
AC Mountain	23.4	23.0	8.2	10
AC Essex	30.9	35.0	12.6	15.4
Caledonia	38.9	38.6	19.7	24.3
Whitby	22.9	26.1	12	15.3
TW006:007 ⁵	31.7	32.8	14	17.3
TW060.075	30.6	35.8	18.9	24.1
OTF013.081		26.5		10
TWF020.038		18.5		14.9
PRC008 ⁵		31.0		16.6
Stealth ⁵	24.7	32.5	10.8	13.7
Wisdom	18.6	18.4	5.6	7.2
Webster	25.8	30.0	9.5	11.7
Warwick	24.0	26.4	8.4	10.8
25R49	36.1	39.4	9.4	11.5
PRO 202SRW	39.9	44.7	17.5	20.9
Whitney	46.1	60.0	15.1	19.4
Sisson	46.7	57.1	12.8	16.2
25R26 ⁵	32.4	32.5	8.2	9.9
25R23	20.7	22.7	11.9	13.5
Vienna	15.5	21.9	7.7	10.1
Kristy	27.1	32.2	6.9	8.9
TW005:008 ⁵	18.4	13.6	5.5	6.4
Wonder	7.2	6.8	3.5	4.5
25R47		24.8		14.4
VA98W.586		28.3		10.1
PRC006 ⁵		57.7		28
Fundulea ⁵	31.1	38.5	8.4	10
AC Morley	17.0	20.3	5.2	6.1
Maxine	25.7	31.3	7.9	10
Platinum	21.3	23.2	5.5	6.9
Warthog	22.7	25.8	5.9	7
Harvard	24.2	27.2	8.3	10.1
Carlisle	32.9	38.2	7.9	9.9
AC Sampson	31.7	36.2	12.3	14.8
TW98430 ⁵		65.6		14
No. of locations	5	3	4	3

¹ % spikelets infected x % heads infected in inoculated, mist irrigated trials at Ridgetown, Nairn and Ottawa. Values differing by less than 20 may not represent true differences in fusarium reaction.

² Deoxynivalenol (vomitoxin) in parts per million at Ridgetown, Nairn, and Ottawa in inoculated trials.