

CANADA WESTERN RED SPRING WHEAT

As grain yields increase, protein content generally decreases. Some of the newer varieties have both higher protein and grain yield. To control true *loose smut* of wheat only a systemic fungicide will work as the pathogen is found inside the seed. To control the other types of smut (*covered*, *false loose* and *bunt*) a non-systemic fungicide seed treatment will work as the disease pathogen is on the outside of the seed.

CWRS Wheat		Yield as % of Katepwa											
		Dawson Creek				Fort St. John				B.C. Peace			
Variety	2011 Yield		2006-2011		2011 Yield		2006-2011		2011	2006-2011			
	bus / acre	% of Check	Avg. (%)	Station Years	bus / acre	% of Check	Avg. (%)	Station Years	Avg. (%)	Avg. (%)	Station Years		
5603HR	106	a-d	111	105	[4]	100	ij	98	101	[4]	104	101	[8]
5604HR CL	100	a-e	105	97	[3]	108	f-i	105	97	[3]	105	101	[6]
AC Barrie	89	e	93	89	[6]	103	hij	101	102	[6]	97	95	[12]
AC Splendor	101	a-e	106	91	[6]	98	j	96	91	[6]	101	94	[12]
Alvena	102	a-e	106	98	[5]	110	d-h	108	105	[5]	107	103	[10]
BW433* Δ	106	a-d	112	112	[1]	101	ij	98	98	[1]	105	105	[2]
BW901* Δ	106	a-d	112	112	[1]	115	c-g	112	112	[1]	112	112	[2]
Carberry	102	a-e	107	111	[3]	114	c-g	111	115	[3]	109	111	[6]
CDC Abound	113	ab	118	110	[6]	126	b	123	111	[6]	121	117	[12]
CDC Alsask	107	a-d	112	102	[6]	117	cde	114	107	[6]	113	108	[12]
CDC Go	112	ab	117	102	[6]	118	cde	115	108	[6]	116	109	[12]
CDC Kernen	101	a-e	106	101	[3]	116	c-f	113	113	[3]	109	107	[6]
CDC Osler	100	a-e	105	101	[6]	110	d-h	108	105	[6]	106	104	[12]
CDC Stanley	107	abc	113	105	[3]	115	c-g	112	105	[3]	112	109	[6]
CDC Thrive	105	a-d	111	99	[3]	118	cde	115	114	[3]	113	107	[6]
CDC Utmost	106	a-d	111	104	[3]	116	c-f	114	111	[3]	112	109	[6]
Glenn	101	a-e	106	103	[3]	108	f-i	105	104	[3]	105	104	[6]
Goodeve	103	a-e	108	102	[5]	109	e-h	107	106	[5]	108	104	[10]
Harvest	102	a-e	107	92	[6]	111	d-h	108	102	[6]	107	100	[12]
Infinity	116	a	121	105	[6]	122	bc	119	110	[6]	120	112	[12]
Katepwa	95	cde	100	100	[6]	102	hij	100	100	[6]	100	100	[12]
Muchmore	110	abc	115	107	[3]	119	bcd	117	115	[3]	116	112	[6]
Shaw	105	a-d	110	103	[3]	113	c-g	110	111	[3]	110	106	[6]
Snowbird**	97	b-e	101	92	[6]	106	g-j	104	102	[6]	103	98	[12]
Snowstar**	107	abc	113	95	[6]	113	c-g	110	106	[6]	111	103	[12]
Stettler	108	abc	113	119	[4]	126	b	123	118	[4]	118	118	[8]
Superb	115	a	121	111	[6]	135	a	132	120	[6]	126	115	[12]
Unity	111	abc	117	108	[4]	118	cde	115	111	[4]	116	112	[8]
Vesper	91	de	96	100	[2]	106	g-j	104	100	[2]	100	102	[4]
WR859 CL	107	a-d	112	107	[4]	104	hij	101	102	[4]	107	104	[8]
LSD (P=.05) =	8.717					5.36							
CV value (%) =	5.9					3.37							

Katepwa - check variety

Means followed by the same letter do not significantly differ (P=.05, LSD)

* first year tested, very limited data available

** CWHWS Canadian Western Hard White Spring Wheat
Δ denotes materials not registered, very limited data available

WR859 CL, CDC Abound and 5604HR CL
are Clearfield® tolerant varieties
Unity is a Wheat Midge Resistant variety

CWRS Wheat

Variety Descriptions

Variety	B.C. Peace Averages				Alberta Agdex 100/32								Distributor
	2006 - 2011				Resistance to:								
	Days to Maturity	Height	Bushel Weight	Kernel Protein %	Lodging	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	Sprouting	FHB		
	+/- check	cm	lbs/bu	+/- check									
■ 5603HR	0.9	78	63	1 [8]	G	G	G	P	F	XX	F	Viterra	
■ 5604HR CL	-7.7	81	64	0 [6]	G	VG	VG	XX	P	G	G	Viterra	
■ AC Barrie	-2.2	77	64	1 [12]	G	G	F	VP	P	G	F	SeCan	
■ AC Splendor	-3.7	76	63	1 [12]	F	F	F	F	F	F	P	SeCan	
■ Alvena	-1.7	80	63	0 [10]	G	G	G	F	XX	F	P	SeCan	
■ BW433* Δ	-1.7	115	65	-1 [2]	XX	XX	XX	XX	XX	XX	XX	Syngenta Seeds Canada	
■ BW901* Δ	-2.2	108	65	-1 [2]	XX	XX	XX	XX	XX	XX	XX	Canterra Seeds	
■ Carberry	-1.1	75	65	0 [6]	VG	G	G	G	P	F	G	SeCan	
■ CDC Abound	-1.8	74	65	0 [12]	G	F	F	P	P	G	P	Viterra	
■ CDC Alsask	-2.3	80	63	0 [12]	F	G	G	F	P	F	P	Viterra	
■ CDC Go	-3.3	73	64	0 [12]	G	P	G	G	P	P	P	Public Variety	
■ CDC Kernen	0.0	86	65	0 [6]	G	VG	F	F	F	F	F	Canterra Seeds Seeds	
■ CDC Osler	-3.2	75	63	0 [12]	G	G	G	F	F	F	VP	Public Variety	
■ CDC Stanley	-2.2	82	64	-1 [6]	G	G	VP	XX	F	VG	P	Viterra	
■ CDC Thrive	-3.2	84	64	0 [6]	G	G	F	F	F	P	P	SeCan	
■ CDC Utmost	-0.6	80	64	0 [6]	G	P	VP	F	F	G	P	FP Genetics	
■ Glenn	1.2	81	66	1 [6]	VG	F	F	G	F	F	F	Canterra Seeds	
■ Goodeve	-2.6	82	63	0 [10]	VG	G	P	F	P	G	VP	Alliance Seeds Corp.	
■ Harvest	-3.2	76	65	0 [12]	VG	G	F	G	P	VG	VP	FP Genetics	
■ Infinity	-1.2	77	63	0 [12]	G	G	F	P	P	G	VP	Canterra Seeds	
■ Katepwa	0.0	82	63	0 [12]	F	G	G	P	P	F	F	SeCan	
■ Muchmore	-0.8	71	65	-1 [6]	VG	G	G	G	P	F	P	FP Genetics	
■ Shaw	-3.1	86	65	0 [6]	G	P	G	XX	P	G	P	SeCan	
■ Snowbird**	-1.0	79	64	0 [12]	G	G	F	P	P	G	P	FP Genetics	
■ Snowstar**	-3.5	72	65	0 [12]	XX	P	P	P	F	F	P	SeCan	
■ Stettler	0.3	76	65	0 [8]	G	G	G	G	P	G	P	SeCan	
■ Superb	-1.5	75	65	0 [12]	G	F	G	VP	P	G	P	SeCan	
■ Unity	-1.6	77	64	0 [8]	G	P	VG	P	P	G	P	SeCan	
■ Vesper	-3.9	91	65	0 [4]	VG	F	P	VP	G	F	G	SeCan	
■ WR859 CL	-4.4	72	64	0 [8]	G	VG	VG	F	P	XX	G	Richardson Intl.	

* first year tested, very limited data available

VG = very good, G = good, F = fair, P = Poor, VP = very poor

** CWHWS = Canadian Western Hard White Spring Wheat

XX = insufficient data

Δ denotes materials not registered, very limited data available

WR859 CL, CDC Abound AND 5604HR CL are Clearfield® tolerant varieties

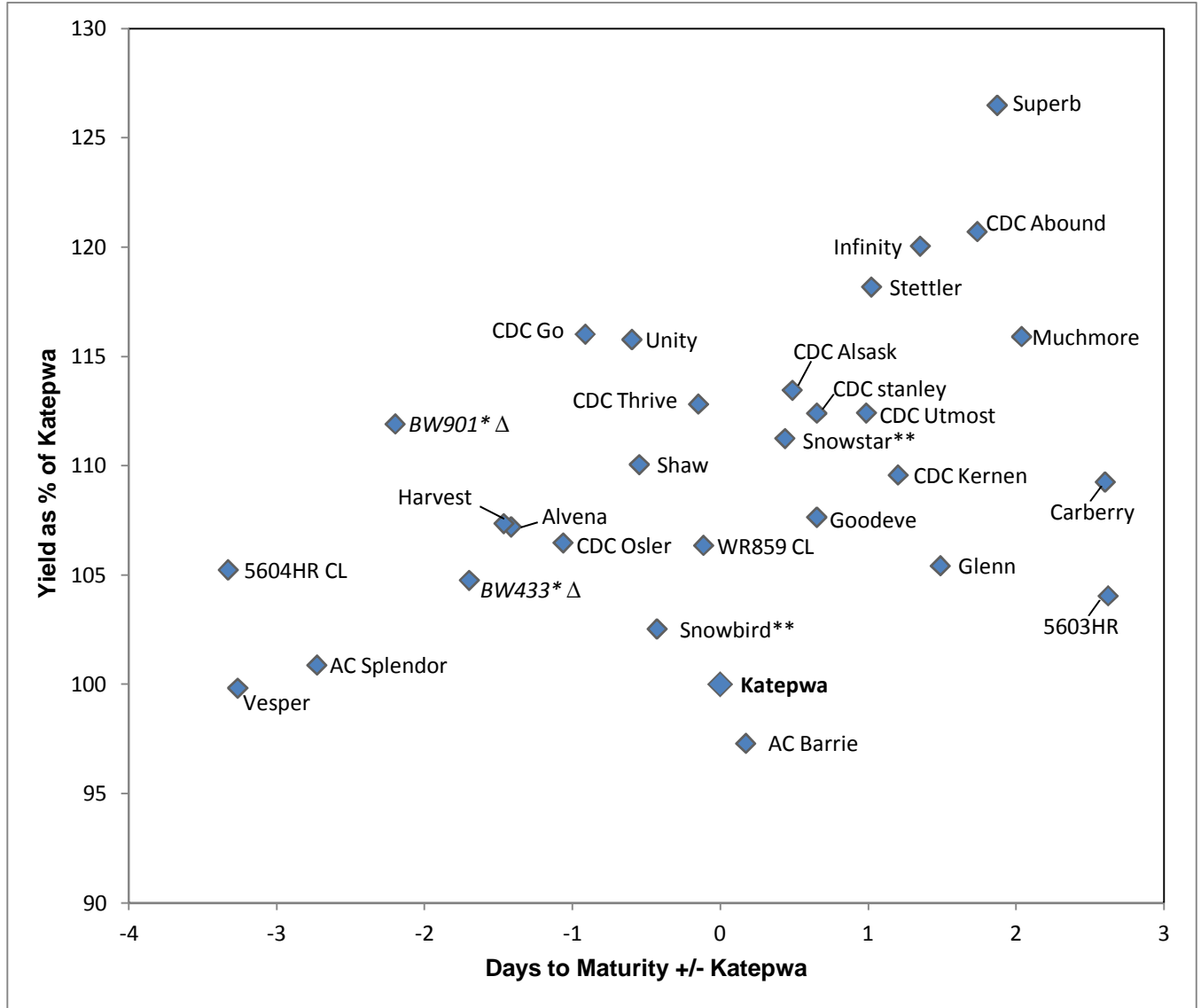
Average protein for **Katepwa** is 13 %

Unity is a Wheat Midge Resistant variety

Average maturity for **Katepwa** is 104 days

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Katepwa - check variety



Average maturity for **Katepwa** is 117 days for 2011

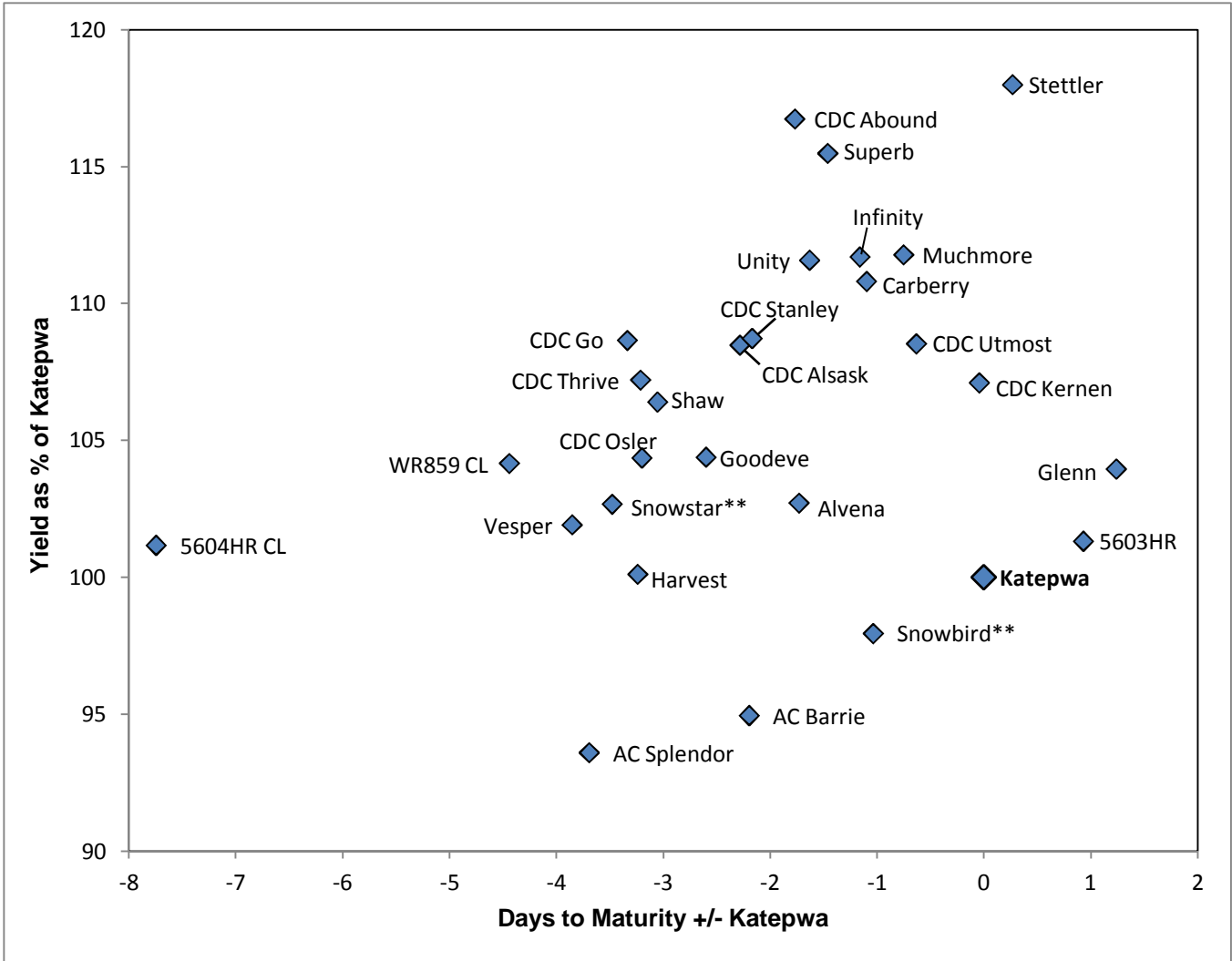
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** CWHWS Canadian Western Hard White Spring Wheat

Δ denotes materials not registered, very limited data available

WR859 CL, CDC Abound and **5604HR CL** are Clearfield® tolerant varieties

Unity is a Wheat Midge Resistant variety



Average maturity for **Katepwa** is 104 days

** CWHWS Canadian Western Hard White Spring Wheat

CANADA PRAIRIE SPRING WHEAT

CANADA WESTERN SOFT WHITE SPRING WHEAT

All current Canada General Purpose Spring varieties (CPS and CWSWS are in this class) should be treated with a systemic fungicide seed treatment to control smut. Avoid deep seeding General Purpose wheats. Note the long maturity periods required for the production of currently available CWSWS wheat varieties. Seeding rates for all classes of wheat covered by the new class "General Purpose" should be increased 20 to 25% due to the larger kernel size.

[For testing purposes, CPS and CWSWS wheats are grown together in the same trial and compared against a CWRS]

CPS / CWSWS Wheat		Yield as % of 5700PR										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2011 Yield		2006 - 2011		2011 Yield		2006 - 2011		2011	2006-2011	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
5700PR	CPS-red	131 b	100	100	[6]	143 ab	100	100	[6]	100	100	[12]
5702PR	CPS-red	136 ab	103	99	[5]	135 bc	94	105	[5]	99	102	[10]
AC Andrew	CWSWS	147 a	112	107	[5]	153 a	107	112	[5]	109	109	[10]
AC Crystal***	CPS-red	136 ab	104	77	[5]	145 ab	101	90	[5]	103	83	[10]
AC Taber***	CPS-red	130 b	99	82	[6]	145 ab	102	91	[6]	100	86	[12]
CDC NRG003	CWGP	127 b	97	94	[2]	129 c	90	94	[2]	94	94	[4]
Conquer	CPS-red	126 b	96	92	[2]	130 c	91	87	[2]	93	90	[4]
HW024* Δ	CWHWS	99 d	76	76	[1]	109 e	76	76	[1]	76	76	[2]
Minnedosa	CPS-white	126 b	96	91	[2]	127 c	89	90	[2]	92	91	[4]
NRG010	CPS-white	132 b	101	99	[3]	137 bc	96	97	[3]	98	98	[6]
Superb	CWRS	121 b	93	99	[4]	134 bc	94	100	[4]	93	99	[8]
SY985 (HY985)	CPS-red	110 c	84	91	[2]	117 d	82	89	[2]	83	90	[4]
LSD (P=.05) =		10.08				8.07						
CV value (%) =		5.51				4.18						

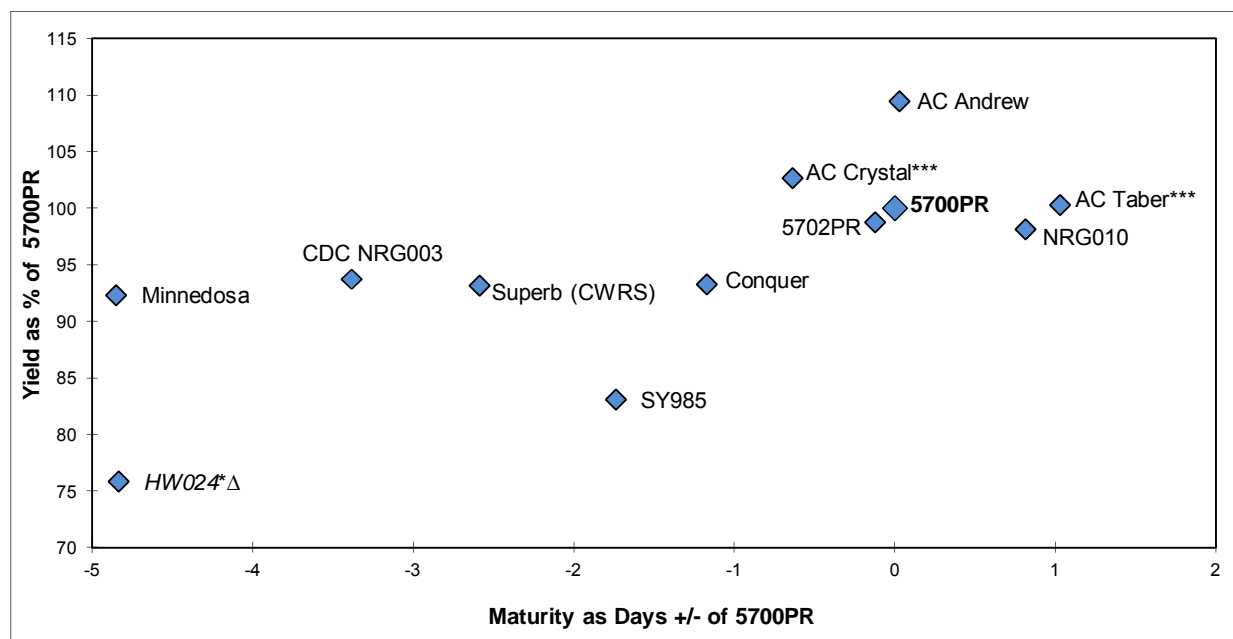
* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

*** denotes semi-dwarf stature

Conquer is a Varietal Blend

CPS / CWSWS Wheat Regional Variety Performance 2011



Δ denotes materials not registered, very limited data available

Average maturity for 5700PR is 122 days for 2011

CPS / CWSWS Wheat

Variety Descriptions

Variety	Type	B.C. Peace Averages 2006-2011				Data from Alberta Agdex 100/32										Distributor	
		Maturity in days +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check	Resistance to:											
						Lodging	Loose Smut	Common Bunt	Stripe	Rust	Leaf Spot	Sprouting	FHB				
■ 5700PR	CPS-red	0	67	64	0 [12]	VG	P	G	P	P	P	VP					Viterra
■ 5702PR	CPS-red	0	73	63	0 [10]	G	P	F	P	F	F	P					Viterra
■ AC Andrew	CWSWS	2	72	64	-1 [10]	VG	VP	P	F	G	F	VP					SeCan
■ AC Crystal***	CPS-red	1	67	64	1 [10]	G	F	VG	VP	F	P	VP					SeCan
■ AC Taber***	CPS-red	3	67	64	0 [12]	G	P	VG	VP	F	P	VP					SeCan
■ CDC NRG003	CWGP	-3	81	64	0 [4]	G	G	VG	XX	VP	XX	VP					Canterra Seeds
■ Conquer	CPS-red	1	87	64	1 [4]	G	P	G	XX	F	XX	P					Canterra Seeds
■ HW024*Δ	CWHWS	-5	96	65	0 [2]	XX	XX	XX	XX	XX	XX	XX					SeCan
■ Minnedosa	CPS-white	-4	84	64	0 [4]	G	F	G	G	P	G	P					SeCan
■ NRG010	CPS-white	1	79	63	0 [6]	G	VG	VG	VG	P	XX	VP					Canterra Seeds
■ Superb	CWRS	-3	74	65	1 [8]	G	F	G	VP	P	G	P					SeCan
■ SY985 (HY985)	CPS-red	-1	79	65	1 [4]	G	VG	G	XX	F	XX	F					Viterra

* first year tested, very limited data available

VG = very good, G = good, F = fair, P = Poor, VP = very poor

5700PR - check variety

XX = insufficient data

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Δ denotes materials not registered, very limited data available

Overall average maturity for **5700PR** is **105** days.

*** denotes semi-dwarf stature

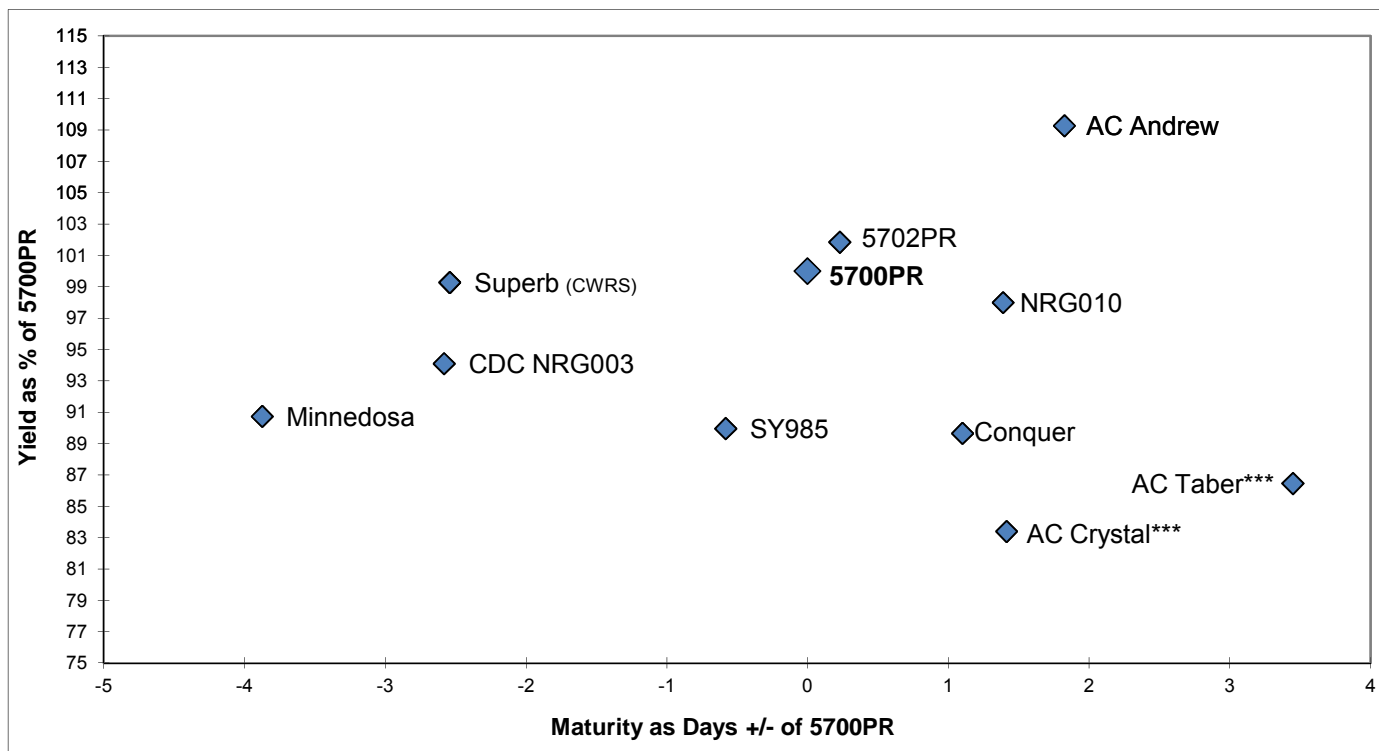
Overall average protein for **5700PR** is **11.7 %**

Numbers in square brackets [] is number of station years collected for protein

CPS / CWSWS Wheat

Regional Variety Performance

2006-2011



DURUM WHEAT

Durum is a type of wheat which is used to make pasta products (macaroni, spaghetti, etc.) and Canada has become a world leader in quality durum. Durum plant breeding within Canada is also moving toward even higher protein content and is developing a brand new category of high gluten strength durum for a specialty pasta market. However, durum requires a long growing season and high heat, two things the Peace River region is not known for having. In the past, durum production has been concentrated in the southern parts of the Canadian prairies.

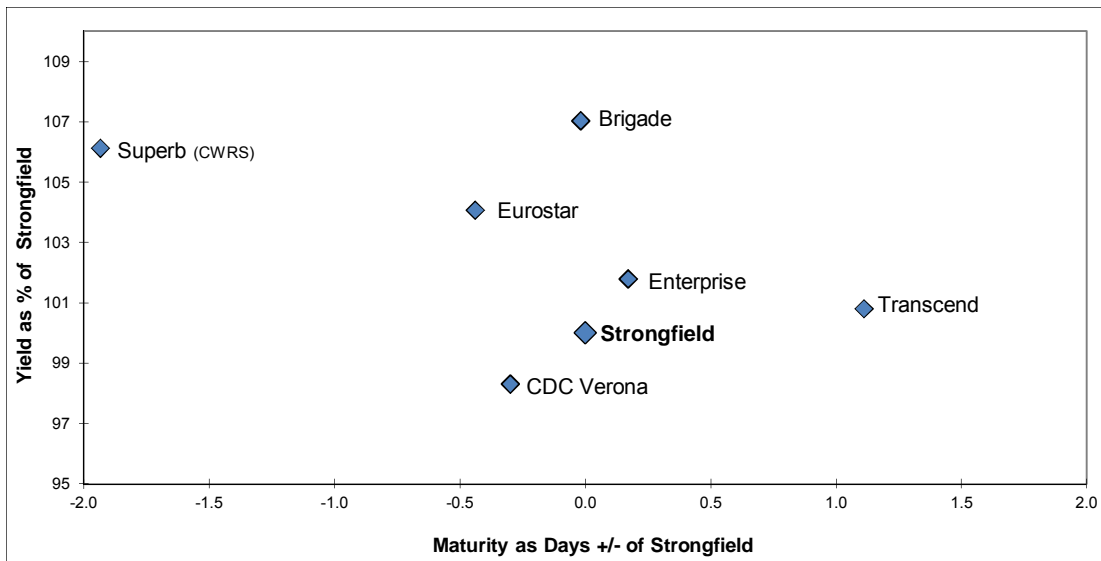
However, a few producers in northwestern Alberta have had success growing the crop and for this reason it has been tested here in the B.C. Peace. Often surprises arise in our northern long-daylight region and so it was worth investigating durum in a limited fashion. Most varieties of durum wheat currently available are suggested by literature to have approximately 10 days later maturity than CWRS wheat, but this may not be proving to be the case locally but was in 2011 (a very wet & late year). Durum should thus not be grown in large acreage within the B.C. Peace River region for grain production until more is understood about its agronomics and interest develops among the grain buyers to purchase the end product from the region - admittedly a vicious circle of acceptance and trial and error. Therefore, *caution* should be taken when attempting to grow durum in the B.C. Peace region, and *disclosure of this data is currently not a recommendation to grow durum in the Peace.*

It appears, however, that the B.C. Peace River region has one really big advantage in growing durum, as it would seem we can grow it free of fusarium, a major problem in most durum growing regions. For these reasons data so far collected within the B.C. Peace region has been disclosed as it appears that durum could hold some economic promise to our region in years to come - assuming a buyer/market develops. The test years 2009 and 2010 unfortunately were years of severe drought and poor yield potentials, but compared to other wheat yields over the same period of time at the same testing locations, durum was respectable in yield by comparison and even seemed to survive the drought better than other wheat types. 2011 was a very wet & late year but did not change its promising outlook as a new viable crop-type for our region, noting however that if a normal killing frost would have occurred it would have been bad news for anything later than a CWRS wheat no matter how many days later.

Durum Wheat		Yield as % of Strongfield										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2011 Yield		2009 - 2011		2011 Yield		2009 - 2011		2011	2009-2011	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
Brigade	CWD	129 a	106	101	[3]	123 b	108	105	[3]	107	103	[6]
CDC Verona	CWD	120 b	98	97	[3]	111 c	98	108	[3]	98	102	[6]
Enterprise	CWD	125 ab	102	104	[3]	115 c	101	105	[3]	102	105	[6]
Eurostar	CWD	124 ab	101	100	[3]	121 b	107	106	[3]	104	103	[6]
Strongfield	CWD	122 ab	100	100	[3]	113 c	100	100	[3]	100	100	[6]
Superb	CWRS	119 b	98	98	[1]	130 a	115	115	[1]	106	106	[2]
Transcend	CWD	124 ab	102	95	[2]	113 c	100	102	[2]	101	99	[4]
LSD (P=.05) =		5.34				3.17						
CV value (%) =		2.89				1.81						

Δ denotes materials not registered, very limited data available
 * first year tested, very limited data available

Durum Wheat Regional Variety Performance 2011



Δ denotes materials not registered, very limited data available

Average maturity for Strongfield is 127 days for 2011

Durum Wheat **Variety Descriptions**

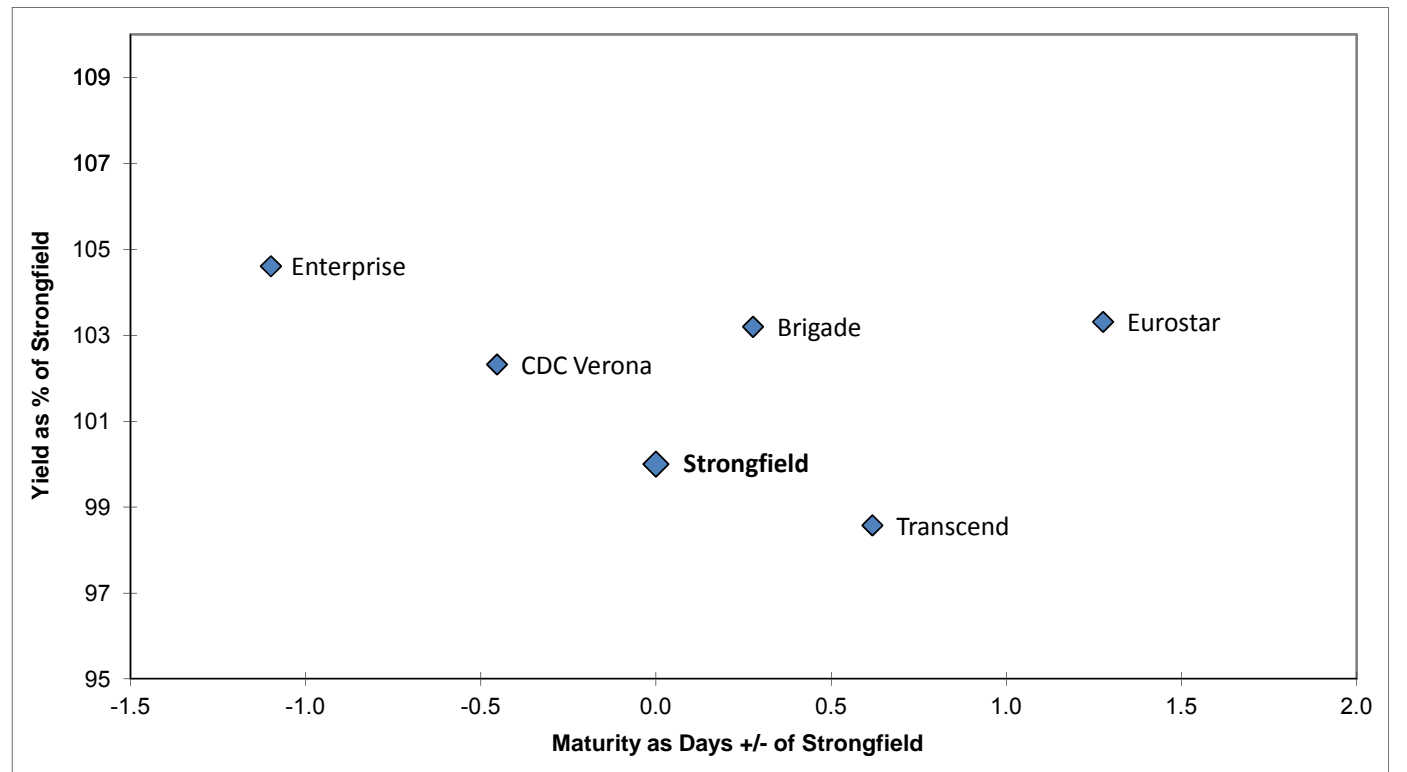
Variety	Type	B.C. Peace Averages 2009-2011				Data from Alberta Agdex 100/32										Distributor
		Maturity	Height	Bushel	Kernel	Resistance to:										
		in days +/- check	cm	Weight lbs/bu	Protein % +/- check	Lodging	Shatter	Loose	Smut	Common	Bunt	Stripe	Rust	Leaf Spot	Sprouting	
■ Brigade	CWD	0.3	81	64	-1 [6]	G	XX	P	G	G	F	F	P			Viterra
■ CDC Verona	CWD	-0.5	76	64	-1 [6]	G	XX	P	G	VG	P	F	P			Alliance Seed Corp.
■ Enterprise	CWD	-1.1	78	65	-1 [6]	G	XX	P	G	VG	G	F	P			Canterra Seeds
■ Eurostar	CWD	1.3	83	65	-1 [6]	G	XX	P	VG	VG	F	F	P			SeCan
■ Strongfield	CWD	0.0	74	64	0 [6]	F	VG	VP	G	G	P	F	VP			SeCan
■ Superb	CWRS	-1.9	98	66	-3 [2]	G	XX	F	G	VP	P	G	P			SeCan
■ Transcend	CWD	0.6	86	64	0 [4]	F	XX	VP	VG	VG	F	F	P			FP-Genetics

* first year tested, very limited data available VG = very good, G = good, F = fair, P = poor, VP = very poor
Strongfield - check variety XX = insufficient data

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 Numbers in square brackets [] is number of station years collected for protein

Overall average maturity for **Strongfield** is 111 days.
 Overall average protein for **Strongfield** is 14.2 %

Durum Wheat **Regional Variety Performance** **2009-2011**



Barley

Six Row Barley		Yield as % of AC Metcalfe										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2011 Yield		2006 - 2011		2011 Yield		2006-2011		2011	2006-2011	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Albright	Feed, General	105 d	83	91	[5]	148 d	100	86	[6]	92	89	[11]
AC Lacombe	Feed, General	152 ab	121	103	[5]	187 a	126	102	[6]	124	103	[11]
AC Metcalfe	Malt	126 c	100	100	[5]	148 d	100	100	[6]	100	100	[11]
<i>CDC Anderson*</i>	Malt	140 abc	111	111	[1]	166 bc	112	112	[1]	112	112	[2]
CDC Mayfair	Malt	131 bc	104	102	[4]	163 c	110	95	[4]	107	99	[8]
Celebration	Malt	126 c	100	103	[2]	151 d	102	96	[2]	101	100	[4]
Chigwell	Feed	148 ab	118	104	[4]	176 ab	118	104	[4]	118	104	[8]
<i>Muskwa*</i>	Feed, General	145 abc	115	115	[1]	169 bc	114	114	[1]	115	115	[2]
Stellar-ND	Malt	135 abc	107	100	[4]	150 d	101	84	[5]	104	92	[9]
Sundre***	Feed	156 a	124	102	[5]	184 a	124	111	[6]	124	106	[11]
Trochu	Feed, General	155 a	124	109	[5]	182 a	123	101	[6]	123	105	[11]
Vivar**	Feed	153 ab	121	105	[5]	181 a	122	103	[6]	122	104	[11]
LSD (P=.05) =		14.26				9.37						
CV value (%) =		7.09				3.88						

Two Row Barley		Yield as % of AC Metcalfe										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2011 Yield		2006 - 2011		2011 Yield		2006-2011		2011	2006-2011	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Metcalfe	Malt	132 de	100	100	[6]	153 a-f	100	100	[6]	100	100	[12]
Bentley	Malt	134 de	102	102	[4]	150 b-f	98	100	[4]	100	101	[8]
CDC Austenson	Feed	152 a-d	115	115	[4]	166 ab	109	106	[4]	112	110	[8]
CDC Carter ¶	Feed	110 de	104	104	[3]	121 b-f	99	98	[3]	101	101	[6]
CDC Coalition	Feed, General	144 b-e	109	109	[5]	166 ab	109	104	[5]	109	107	[10]
CDC Cowboy	Feed, Forage	142 cde	107	107	[5]	148 c-f	97	91	[5]	102	99	[10]
CDC ExPlus ¶	Malt	99 e	94	94	[2]	110 f	90	85	[2]	92	89	[4]
CDC Kindersley	Malt	137 de	104	104	[2]	150 b-f	98	98	[2]	101	101	[4]
CDC Meredith	Malt	162 ab	123	123	[4]	170 a	112	107	[4]	117	115	[8]
<i>CDC PolarStar*</i>	Malt	134 de	101	101	[1]	139 ef	91	91	[1]	96	96	[2]
CDC Reserve	Malt	135 de	103	103	[4]	151 b-f	99	103	[4]	101	103	[8]
Cerveza	Malt	141 cde	107	107	[3]	158 a-d	104	106	[3]	105	106	[6]
Champion	Feed, General	140 cde	106	106	[6]	144 def	95	104	[6]	100	105	[12]
CONLON	Feed, General	134 de	101	101	[6]	147 c-f	97	85	[6]	99	93	[12]
<i>FB205* Δ</i>	Feed, Forage	136 de	103	103	[1]	153 a-f	100	100	[1]	102	102	[2]
Gadsby	Feed, General	159 abc	120	120	[2]	168 ab	110	107	[2]	115	114	[4]
<i>HB08304* Δ ¶</i>	Malt	107 de	101	101	[1]	117 c-f	96	96	[1]	99	99	[2]
Major	Malt	146 bcd	110	110	[3]	164 abc	107	99	[3]	109	105	[6]
Merit 57	Malt	166 a	125	125	[5]	170 a	111	107	[5]	118	116	[10]
Newdale	Malt	142 cde	107	107	[6]	155 a-e	102	104	[6]	104	106	[12]
Norman	Malt	131 de	99	99	[3]	139 ef	91	88	[3]	95	94	[6]
Ponoka	Feed, General	148 bcd	112	112	[6]	160 a-d	105	107	[6]	108	109	[12]
TR07728 Δ	Feed	150 a-d	114	114	[3]	168 ab	110	103	[3]	112	109	[6]
XENA	Feed, General	151 a-d	114	114	[6]	169 a	111	96	[6]	112	105	[12]
LSD (P=.05) =		11.81				10.50						
CV value (%) =		5.87				4.78						

Means followed by the same letter do not significantly differ (P=.05, LSD)

* first year tested, very limited data available

** semi-dwarf type

*** smooth-awned type

¶ denotes hulless seed types (bu/ac adjusted for hulless)

Δ denotes materials not registered, very limited data available

AC Metcalfe - check variety for 2 row
AC Metcalfe - check variety for 6 row

Feed Barley		Variety Descriptions											
Variety	Type	B.C. Peace Averages				Alberta Agdex 100/32 info							Distributor
		2006-2011				Resistance to							
		Days to Maturity	Height	Bushel Weight	Kernel Protein %	Lodging	Loose Smut	False Smut	Root Rot	Scald	F:HB	Tolerance	
		+/- check	cm	lbs/bu	+/- check								
Eligible for General Purpose Grades Only													
AC Albright	6 row	-7.6	77	52	1 [12]	XX	P	P	P	F	XX	SeCan	
■ AC Lacombe	6 row	-1.3	74	50	-1 [12]	G	P	G	P	P	VP	SeCan	
■ CDC Austenson	2 row	5.4	69	55	0 [8]	G	VP	VG	F	VP	F	SeCan	
■ CDC Coalition	2 row	4.5	69	55	0 [10]	G	VG	VG	F	VP	F	Canterra Seeds	
■ CDC Cowboy	2 row	4.9	91	55	1 [10]	F	P	G	F	P	G	SeCan	
■ Champion	2 row	3.2	70	55	-1 [12]	G	VP	VG	XX	VP	F	Viterra	
■ Chigwell	6 row	3.9	72	52	0 [8]	G	P	G	P	G	VP	SeCan	
■ CONLON	2 row	-4.2	71	55	0 [12]	G	F	F	G	VP	G	Seed Depot Corp.	
■ FB205* Δ	2 row	18.2	129	58	0 [2]	XX	XX	XX	XX	XX	XX	U of S	
■ Gadsby	2 row	9.8	90	56	0 [4]	F	VG	VG	F	VG	F	SeCan	
■ Muskwa*	6 row	15.1	103	55	-3 [2]	XX	XX	XX	XX	XX	XX	SeedNet	
■ Ponoka	2 row	5.9	71	55	0 [12]	G	VG	VG	F	G	P	SeCan	
■ Sundre***	6 row	4.7	81	54	-1 [12]	G	P	VG	P	VG	VP	Mastin Seeds, AB	
■ TR07728 Δ	2 row	4.6	77	56	0 [6]	XX	P	VG	G	P	F	Viterra	
■ Trochu	6 row	-4.0	72	52	-1 [12]	G	P	G	G	F	F	SeCan	
■ XENA	2 row	2.0	70	55	0 [12]	G	P	P	G	VP	G	Viterra	
Semi-dwarf varieties													
■ Vivar**	6 row	-1.0	70	51	-1 [12]	VG	F	VG	G	F	VP	SeCan	
Hulless varieties													
■ CDC Carter ¶	2 row	1.5	75	63	0 [6]	VG	VG	VG	VP	P	F	SeCan	

Malt Barley		Variety Descriptions											
Variety	Type	B.C. Peace Averages				Alberta Agdex 100/32 info							Distributor
		2006-2011				Resistance to							
		Days to Maturity	Height	Bushel Weight	Kernel Protein %	Lodging	Loose Smut	False Smut	Root Rot	Scald	F:HB	Tolerance	
		+/- check	cm	lbs/bu	+/- check								
■ AC Metcalfe	2 row	0.0	72	55	0 [24]	G	VG	F	F	VP	F	SeCan	
■ Bentley	2 row	0.9	73	53	0 [8]	G	P	G	G	VP	P	Canterra Seeds	
■ CDC Anderson*	6 row	16.3	113	53	-2 [2]	XX	XX	XX	XX	XX	XX	SeCan	
■ CDC ExPlus ¶	2 row	3.3	87	63	-1 [4]	VG	P	P	VG	VG	G	U of S	
■ CDC Kindersley	2 row	2.9	86	56	0 [4]	G	VP	VG	F	VP	F	SeCan	
■ CDC Mayfair	6 row	-3.8	69	51	0 [8]	G	VP	G	F	VP	P	Canterra Seeds	
■ CDC Meredith	2 row	3.9	68	54	-1 [8]	G	VG	G	G	VP	F	SeCan	
■ CDC PolarStar*	2 row	11.1	118	57	-1 [2]	XX	XX	XX	XX	XX	XX	Canterra Seeds	
■ CDC Reserve	2 row	-2.2	71	54	0 [8]	G	VP	P	F	P	P	SeCan	
■ Celebration	6 row	1.6	90	53	0 [4]	VG	VG	VG	P	VP	P	Canterra Seeds	
■ Cerveza	2 row	3.6	77	54	0 [6]	G	VG	VG	F	VP	F	Mastin Seeds, AB	
■ HB08304* Δ ¶	2 row	15.2	121	65	-2 [2]	XX	XX	XX	XX	XX	XX	U of S	
■ Major	2 row	3.1	74	54	0 [6]	G	VG	G	F	P	F	Viterra	
■ Merit 57	2 row	5.4	72	55	-1 [10]	F	P	VP	F	P	G	Canterra Seeds	
■ Newdale	2 row	0.5	70	54	0 [12]	G	VP	G	G	P	F	FP Genetics	
■ Norman	2 row	-2.2	67	54	1 [6]	G	VP	VP	P	VP	G	FP Genetics	
■ Stellar-ND	6 row	-5.0	76	51	0 [10]	VG	G	G	F	P	F	Canterra Seeds	

* first year tested, very limited data available

VG= very good, G = good, F = fair, P = poor, VP = very poor

¶ denotes hulless seed types

XX = insufficient data

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Overall average maturity for AC Metcalfe is 93 days

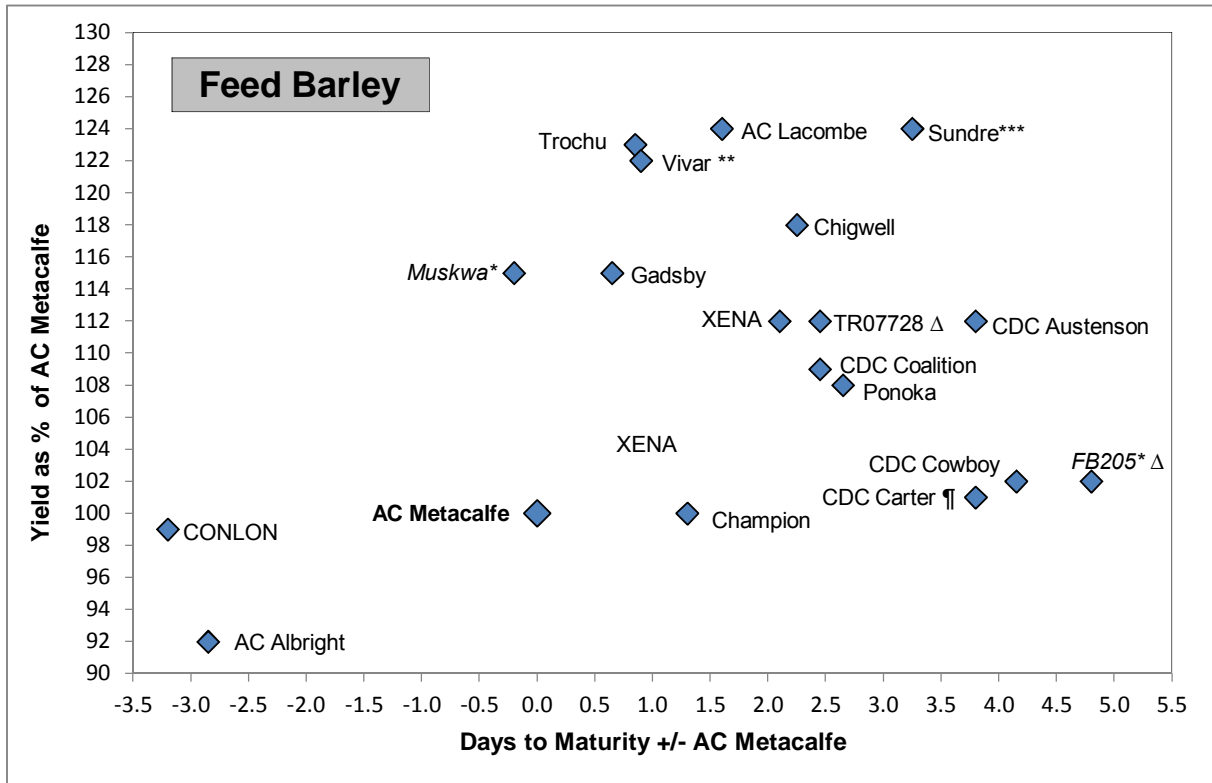
Δ denotes materials not registered, very limited data available

Overall average protein for AC Metcalfe is 13.7%

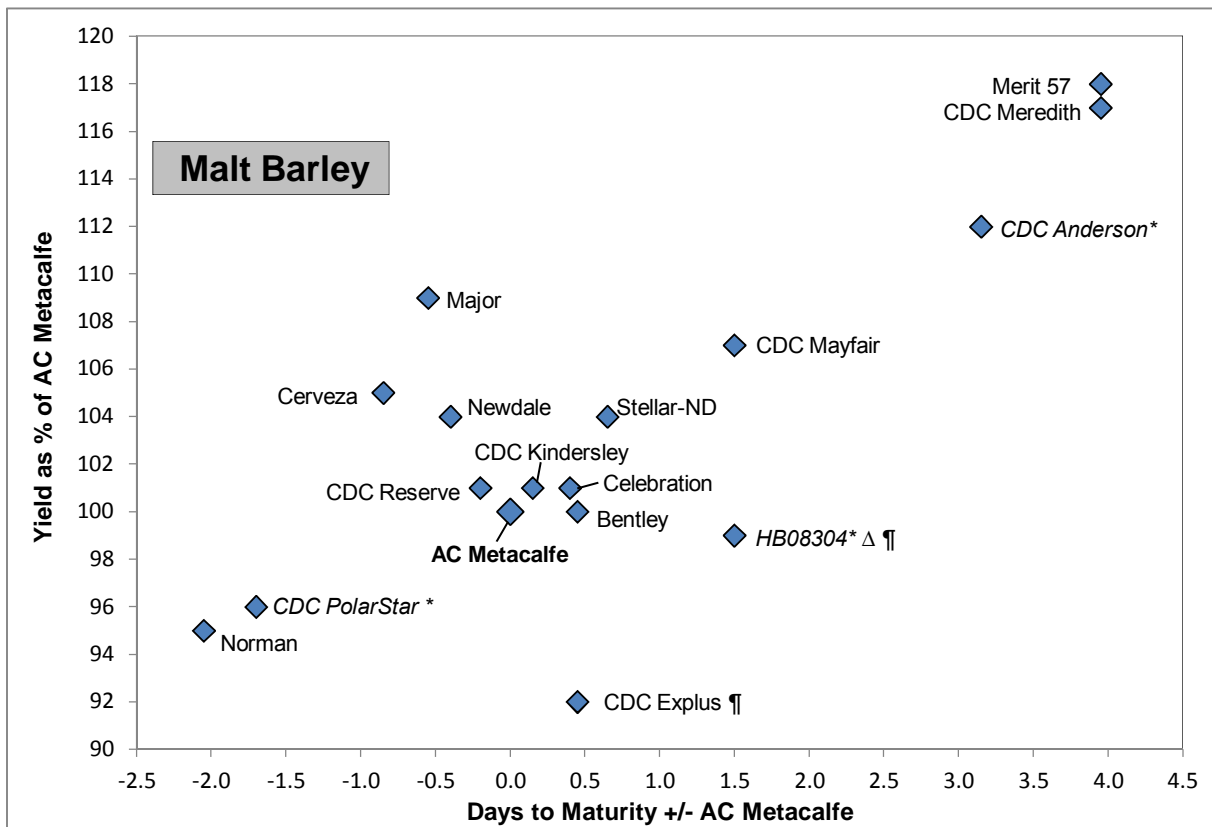
Numbers in square brackets [] is number of station years collected for protein

AC Metcalfe - check variety

** semi-dwarf type *** smooth-awned type



Average maturity for AC Metcalfe is 106 days in 2011 (both graphs)

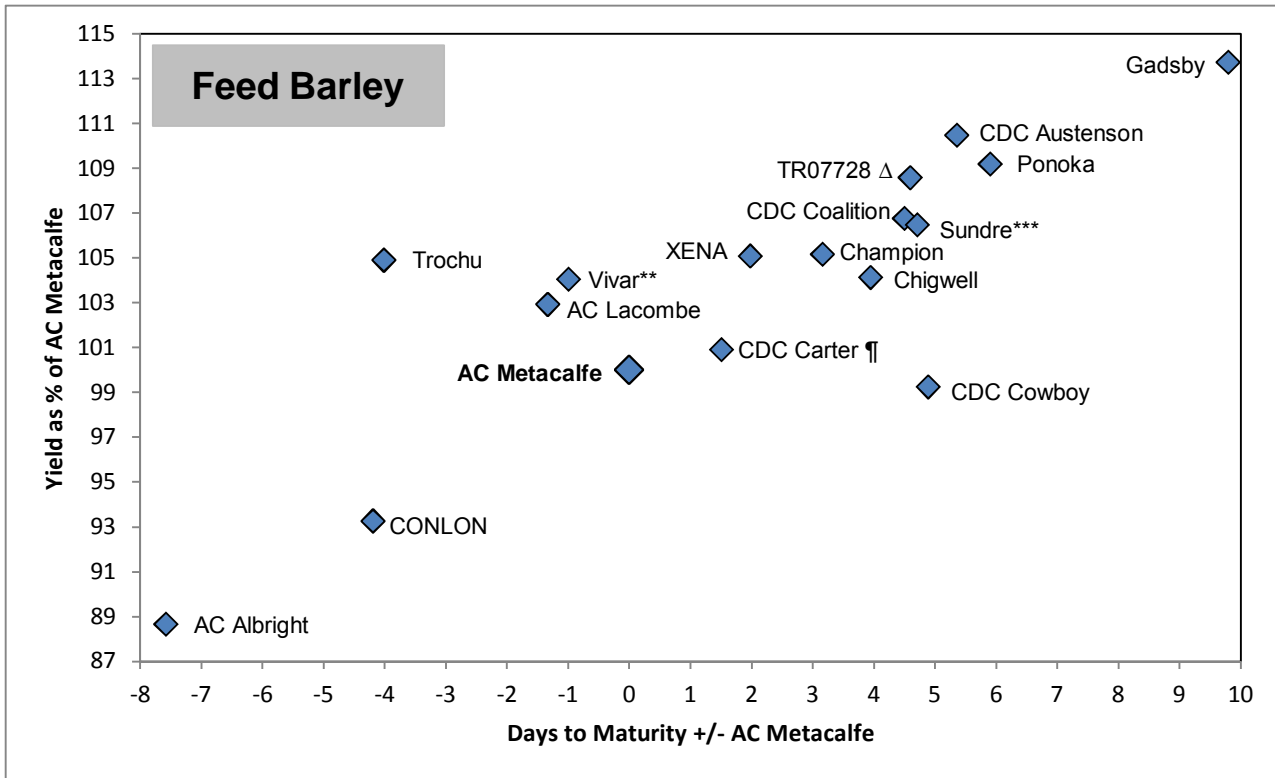


* first year tested materials

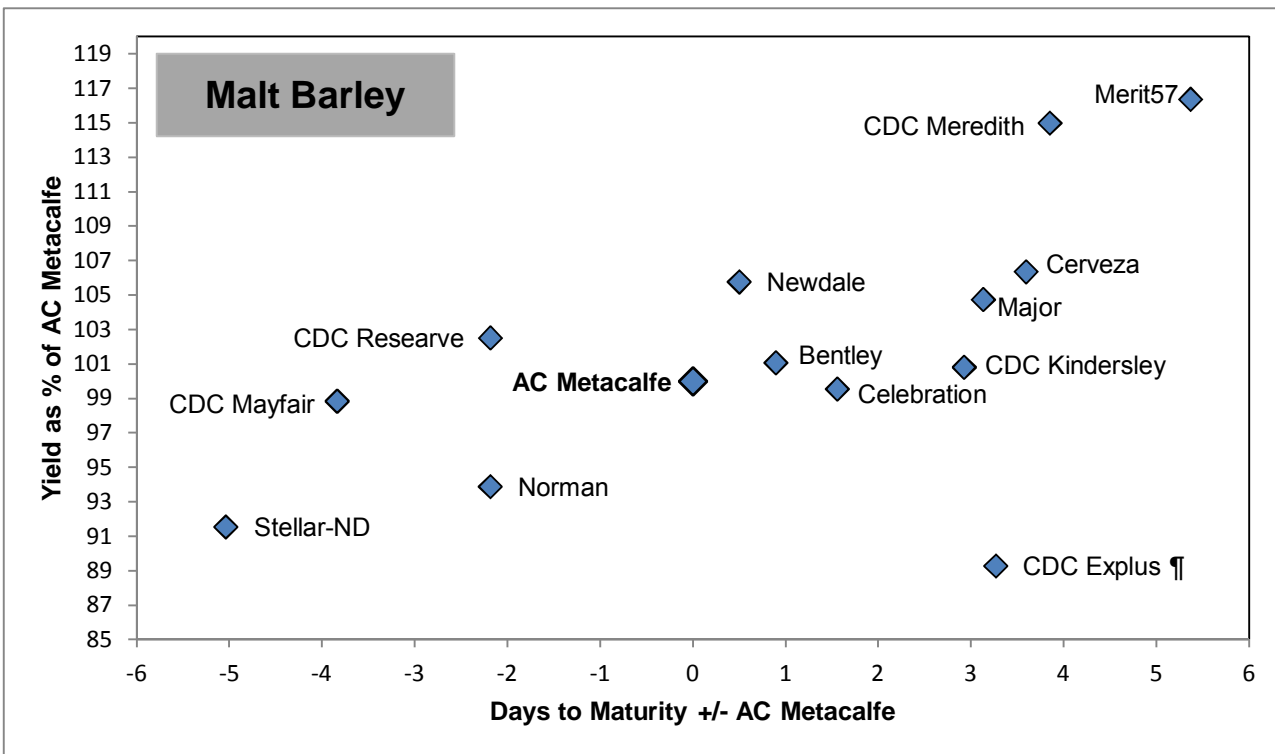
Δ denotes materials not registered

¶ denotes hulless seed types (bu/ac adjusted for hulless)

** semi-dwarf type *** smooth-awned type



Average maturity for AC Metcalfe is 93 days (both graphs)



** semi-dwarf type
 *** smooth-awned type

Δ denotes materials not registered
 ¶¶ denoted hulless seed types (bu/ac adjusted for hulls)

OAT

Oat is usually a feed crop but some varieties are also suitable for higher value feed and food markets. The milling industry prefers higher protein varieties with plump kernels and lower hull content, while the horse industry prefers white hulled varieties. Hulless oat varieties have excellent feed and food value but need to be stored drier than normal varieties (<12% moisture) and do not flow as well in the bin due to their pubescence (hairs), which seem to "lock together". The exception to this "hairy-hulless" issue is the variety *Gehl*, included for the first time this season, which is a "low pubescence hulless" oat aimed at a replacement for rice actually, hence the marketing slogan "prairie rice" for it. A potential contracted market in the Peace River area is a real possibility if agronomics work out for *Gehl*. Yield values for hulless oat varieties are expressed after hull removal, which reduces the seed weight by 20-25% compared to the normal varieties. Keep this ratio in mind while comparing hulless to hulled, however currently (in this report) only the "low pubescence" hulless oat *Gehl* is being tested. (See earlier reports for more information on more "traditional hulless" types).

Oat		Yield as % of CDC Dancer										
Variety	Colour	Dawson Creek				Fort St. John				B.C. Peace		
		2011 Yield		2006-2011		2011 Yield		2006-2011		2011	2006-2011	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Mustang	White	179 a	112	115	[6]	240 ab	120	117	[6]	116	116	[12]
Bradley	White	127 e	80	89	[3]	217 cd	108	106	[3]	94	98	[6]
CDC Big Brown	Brown	161 abc	101	96	[2]	227 bc	113	110	[2]	107	103	[4]
CDC Dancer	White	159 abc	100	100	[6]	200 d	100	100	[6]	100	100	[12]
CDC Minstrel	White	145 cde	91	94	[5]	230 abc	115	103	[5]	103	98	[10]
<i>CDC Seabiscuit*</i>	Yellow	136 de	86	86	[1]	216 cd	108	108	[1]	97	97	[2]
CDC SO-I	Tan/Brown	167 abc	105	94	[2]	231 abc	115	108	[2]	110	101	[4]
<i>Gehl*</i>	White	43 f	43	43	[1]	65 e	51	51	[1]	47	47	[2]
Lu	Yellow	155 bcd	98	98	[6]	231 abc	115	99	[6]	106	98	[12]
<i>Stride*</i>	White	152 cd	95	95	[1]	212 cd	106	106	[1]	101	101	[2]
Triactor	White	177 ab	111	114	[5]	252 a	126	110	[5]	118	112	[10]
LSD (P=.05) =		15.89				15.67						
CV value (%) =		7.44				5.06						

Means followed by the same letter do not significantly differ (P=.05, LSD)

* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

* *Gehl* is a "low pubescence hulless" oat intended for the whole grain oat market (see comment above chart)



Health Benefits Of Oat

Oats are mainly used for livestock feed especially horses and cows and only a small percentage of oat has been traditionally used for human consumption. However, oat are a great source of fibre which consists of more than half as soluble fibres. Oat is high in protein and mineral contents included calcium, iron, magnesium, zinc, copper, manganese, thiamin, folacin, and vitamin E. They are higher in these components than any other whole grain, such as wheat, barley, corn or rice. Rich in Vitamin B1 they can help maintain carbohydrate metabolism. Many scientific researchers have proven that eating oatmeal, oat bran and whole oat products improves both blood pressure and cholesterol levels and furthermore, it also reduces the risk of heart disease, cancer and diabetes. Thus, oat is a significant contributor to the good health of not only livestock but also to good human health as well.

Oat		Variety Descriptions						
Variety	Type	BC Peace Averages 2006 - 2011			Alberta Agdex 100/32 info		Distributor	
		Maturity as days +/- check	Height cm	Bushel Weight lbs/bu	Tolerance to:			
					Lodging	Smuts		
■ AC Mustang	Feed/forage	3.0	87	43	G	F	Mastin Seeds	
■ Bradley	Milling	2.0	84	40	VG	VG	SeCan	
■ CDC Big Brown	Milling	3.5	94	43	G	VG	SeCan	
■ CDC Dancer	Milling	0.0	82	42	G	VG	FP Genetics	
■ CDC Minstrel	Milling	3.2	79	42	VG	VG	FP Genetics	
■ CDC Seabiscuit*	Milling	7.9	110	42	XX	XX	Canterra Seeds	
■ CDC SO-I	Feed	-1.3	90	40	XX	XX	T & L Seeds	
■ Gehl* ¶	General Purpose	3.4	114	52	XX	XX	Wedge Farms	
■ Lu	Feed	-2.4	78	41	G	VG	SeCan	
■ Stride*	Milling	5.4	119	45	XX	XX	AAFC-Lacombe	
■ Triactor	Milling/Feed	2.6	81	40	G	VG	Canterra Seeds Seeds	

CDC Dancer - check variety

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VG = very good, G = good, F = fair, P = Poor, VP = very poor

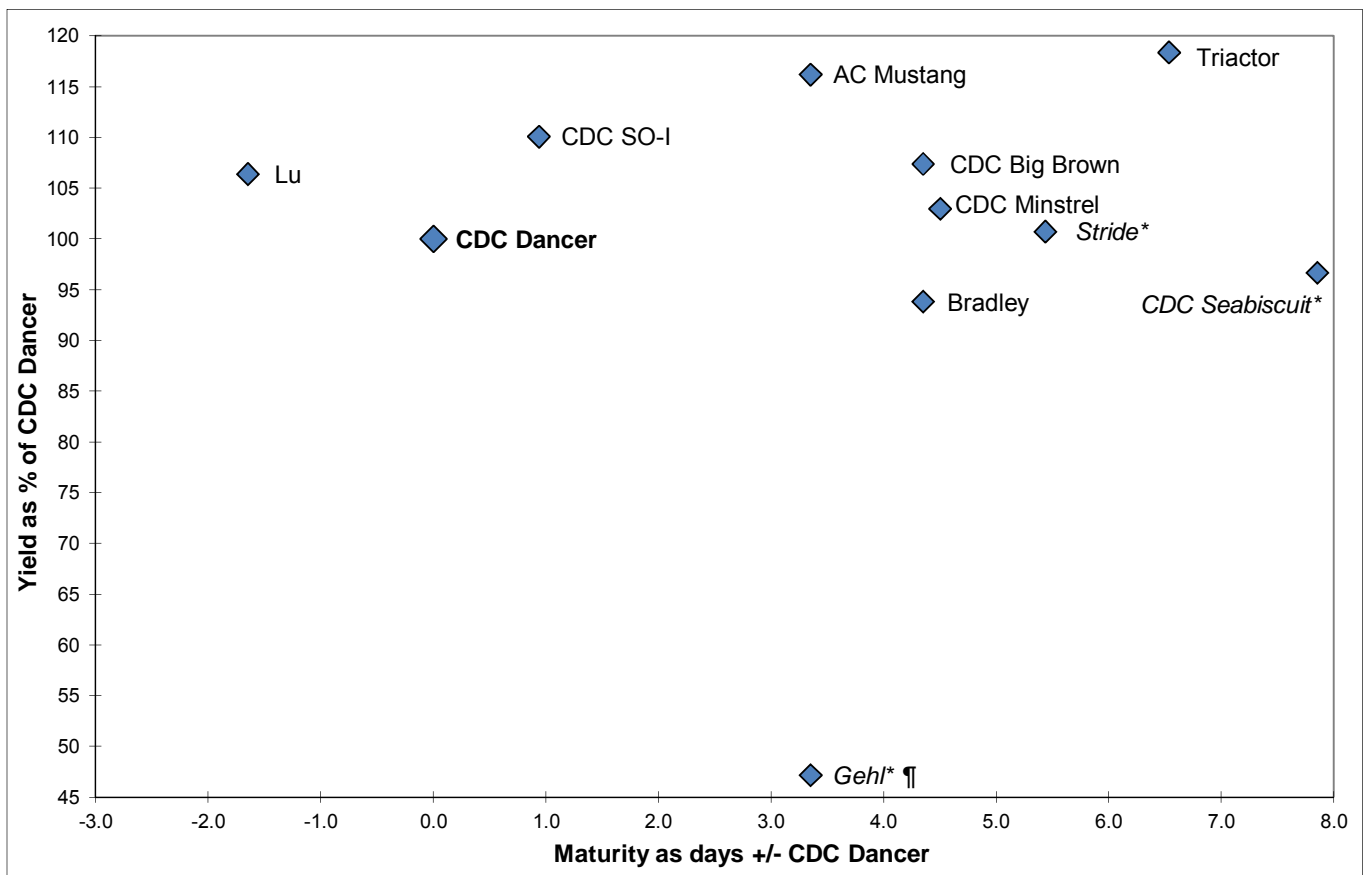
XX = insufficient data

* first year tested, very limited data available

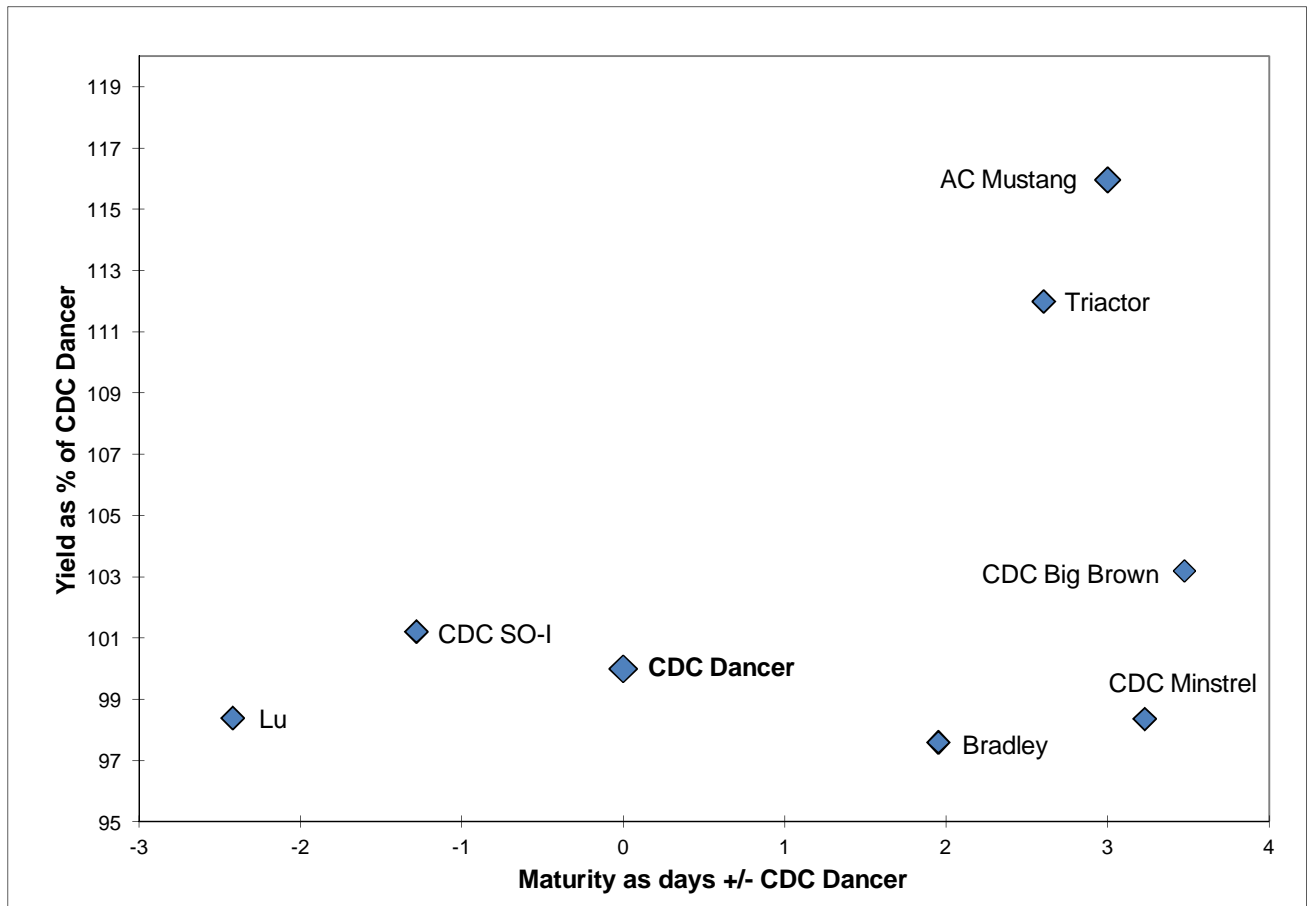
Δ denotes materials not registered, very limited data available

¶ denotes low pubescence hullless

Oat Regional Variety Performance 2011



Overall average maturity for CDC Dancer is 101 days for 2011



Overall average maturity for CDC Dancer is 95 days

Oat for Feed

Oats are often sown to provide fodder in the form of silage or greenfeed. Oats will yield more silage or greenfeed per unit area than any other cereal crop. If managed properly, it can provide 3-4.5 tons of dry matter per acre, or more, of high quality feed containing up to 10 percent protein¹. Many years of comparing yields of oats with barley have shown oats to be superior in the Black and Grey Wooded soil zones¹. Although the percent protein level in barley is higher than in oats, the total amount of protein produced on a given area is higher with oats than with barley¹. Oats have about 22-26 percent hull whereas barley averages about 12-14 per cent hull on a weight basis¹. When choosing a variety, the seed yield as well as the forage yield should be considered, thereby keeping one's options open to harvest as forage or grain¹. We do not currently evaluate oat varieties for forage yield in these tests.

Forage Oat

It is believed by some farmers that one variety might be better than another because it appears "leafier"; however, tests on a number of varieties have shown very little variation in leafiness². Having said that however, such work has not likely included the newer lines of forage oats that are entering the market place now. These new "forage only" lines, such as *CDC Baler* and *Murphy*, have usually been much larger plants in our tests than their traditional counterparts developed for seed quality, which should translate to more biomass to be available for forage production. Note however, that traditionally our oat tests do not lodge and so it is unclear as to whether larger plants are going to be a concern for early lodging in a large-scale forage production practice in our area. Lodging data here is from Alberta Agdex 100/32.

Other Comments

On heavier soils and in the more moist areas, lodging resistance should be considered, but again, traditionally lodging has not been a concern in our BC Peace oat trials, and as mentioned above, lodging data provided here is from Alberta Agdex 100/32. The variation in straw feed quality between oat varieties is insignificant and should not be used as a variety selection criterion³. The average feed values are: protein 4%, fibre 49%, calcium 0.27%, and phosphorus 0.08%³.

Source^{1,2,3}: Alberta Agriculture, Food, and Rural Development website www.agric.gov.ab.ca

SPRING TRITICALE

Triticale is a genetic cross (not a hybrid) developed by crossing wheat (*Triticum turgidum* or *Triticum aestivum*) with rye (*Secale cereale*). Most varieties of spring triticale currently available are approximately 10 days or more later maturing than CWRS wheat, and as such they should not be grown in the B.C. Peace River region for grain production. However, a few varieties are proving to be earlier than traditional spring triticale varieties, and perhaps as breeding continues earlier lines may come along that can be grown here for grain with a consistent and early enough maturity. Their high grain yields are "attention grabbers", and so it is worth watching their development, especially as triticale seems to hold a lot of potential for ethanol production in the Peace River region if breeding efforts could produce earlier maturing lines. Drought tolerance is the primary advantage that spring triticales have over other spring cereal crops. Spring triticales are also a valuable alternative or compliment to barley & oat as forage feed, but current triticale lines do tend to have low resistance to Ergot, likely due to late maturity. This may become less of a concern as earlier lines are bred. It is for these reasons, especially its potential use as a high volume ethanol feedstock, that data is included in this report.

Variety	Yield as % of Pronghorn										
	Dawson Creek				Fort St. John				B.C. Peace		
	2011 Yield		2006-2011		2011 Yield		2006-2011		2011	2006-2011	
bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
AC Alta	158 e	92	97	[5]	175 c	95	105	[5]	93	101	[10]
AC Ultima	185 ab	107	107	[6]	184 b	99	93	[6]	103	100	[12]
Brevis*	192 a	111	111	[1]	193 a	105	105	[1]	108	108	[2]
Bumper	164 de	95	102	[3]	171 c	93	100	[3]	94	101	[6]
Pronghorn	173 bcd	100	100	[6]	185 b	100	100	[6]	100	100	[12]
Sunray	174 bcd	100	97	[2]	185 b	100	103	[2]	100	100	[4]
Taza	169 cde	98	99	[2]	179 bc	97	97	[2]	97	98	[4]
Tyndal	177 bc	103	116	[6]	178 bc	96	100	[6]	99	108	[12]
LSD (P=.05) =	9.49				5.88						
CV value (%) =	3.71				2.21						

Means followed by the same letter do not significantly differ (P=.05, LSD)

* first year tested, very limited data available

△ denotes materials not registered, very limited data available

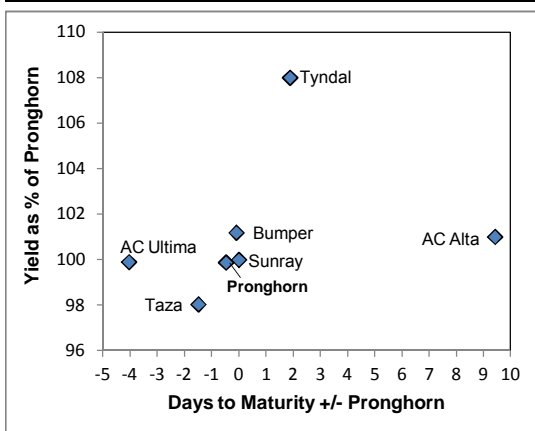
Pronghorn - check variety

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Variety	VARIETY DESCRIPTIONS										
	Maturity as days +/- check	Height (cm)	Bushel Weight (lbs/bus)	TKW (g / 1000)	Resistance to:						Distributor
					Lodging	Loose Smut	Common Bunt	Sprouting	FHB		
AC Alta	9.4	81	55	51							Progressive Seeds
AC Ultima	-4.0	85	58	45	G	VG	VG	F	F		FP Genetics
Brevis*	1.9	110	63	51	XX	XX	XX	XX	XX		Wagon Wheel Seed Corp.
■ Bumper	-0.1	82	60	45	VG	XX	VG	F	P		SeCan
Pronghorn	0.0	87	57	44	G	VG	VG	F	G		Progressive Seeds
Sunray	-0.5	93	58	45	VG	VG	VG	F	VP		SeedNet
■ Taza	-1.5	103	58	46	XX	XX	VG	XX	VP		Solick Seeds
■ Tyndal	1.9	87	58	44	G	VG	VG	P	P		SeCan

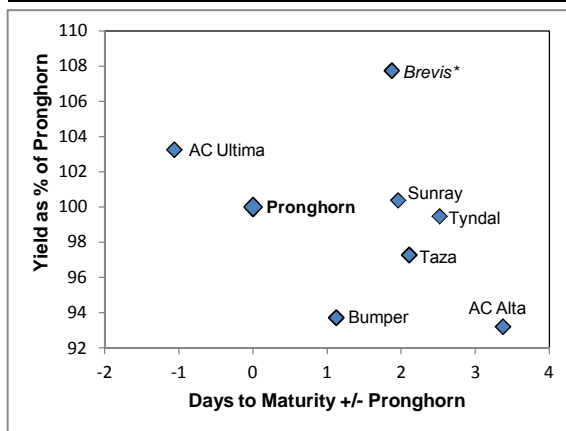
VG= very good, G = good, F = fair, P = poor, VP = very poor; XX = insufficient data

Regional Variety Performance 2006-2011



Average long-term maturity for Pronghorn is 111 days

Regional Variety Performance 2011



Average maturity for Pronghorn is 121 days for 2011