

Funding for this project has been provided by Agriculture and Agri-Food Canada through the Canadian Agricultural Adaptation Program (CAAP). In British Columbia, this program is delivered by the Investment Agriculture Foundation of BC.

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# 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	2012 Yield		2007 - 2012		2012 Yield		2007 - 2012		2012	2007-2012			
	bus / acre	% of Check	Avg. (%)	Station Years	bus / acre	% of Check	Avg. (%)	Station Years	Avg. (%)	Avg. (%)	Station Years		
5603HR	43	ab	93	103	[5]	51	de	104	101	[5]	98	102	[10]
5604HR CL	43	ab	93	96	[4]	56	b-e	113	101	[4]	103	98	[8]
AAC Bailey	48	ab	105	108	[2]	58	a-e	118	115	[2]	111	112	[4]
AAC Redwater *	44	ab	96	96	[1]	57	a-e	115	115	[1]	105	105	[2]
AC Barrie	44	ab	95	94	[6]	53	de	106	104	[6]	101	99	[12]
AC Splendor	49	ab	107	94	[6]	61	a-d	123	95	[6]	115	95	[12]
BW931 *Δ	51	ab	112	112	[1]	67	a	135	135	[1]	124	124	[2]
BW932 *Δ	48	ab	105	105	[1]	66	ab	133	133	[1]	119	119	[2]
Carberry	53	ab	115	112	[4]	59	a-e	120	116	[4]	118	114	[8]
Cardale*	47	ab	103	103	[1]	55	cde	111	111	[1]	107	107	[2]
CDC Abound	50	ab	108	112	[6]	67	a	135	115	[6]	122	114	[12]
CDC Alsask	52	ab	114	105	[6]	56	b-e	114	108	[6]	114	106	[12]
CDC Go	44	ab	95	104	[6]	60	a-d	121	111	[6]	108	107	[12]
CDC Kernen	48	ab	105	102	[4]	59	a-e	119	114	[4]	112	108	[8]
CDC Osler	47	ab	103	100	[6]	58	a-e	117	107	[6]	110	104	[12]
CDC Plentiful *	48	ab	105	105	[1]	56	b-e	114	114	[1]	109	109	[2]
CDC Stanley	41	ab	89	101	[4]	56	b-e	113	107	[4]	101	104	[8]
CDC Thrive	39	ab	85	96	[4]	54	de	109	113	[4]	97	104	[8]
CDC Utmost	47	ab	102	103	[4]	54	de	110	111	[4]	106	107	[8]
CDC VR Morris *	44	ab	95	95	[1]	52	de	106	106	[1]	100	100	[2]
Glenn	54	a	117	106	[4]	56	b-e	113	106	[4]	115	106	[8]
Goodeve	45	ab	99	101	[6]	55	cde	111	107	[6]	105	104	[12]
Harvest	37	b	80	94	[6]	52	de	105	103	[6]	92	98	[12]
Infinity	46	ab	100	105	[6]	58	a-e	116	113	[6]	108	109	[12]
<b>Katepwa</b>	46	ab	100	100	[6]	49	e	100	100	[6]	100	100	[12]
Muchmore	47	ab	102	106	[4]	65	abc	131	119	[4]	116	112	[8]
Shaw	46	ab	101	102	[4]	57	a-e	115	112	[4]	108	107	[8]
Snowstar **	38	ab	83	96	[6]	55	cde	111	108	[6]	97	102	[12]
Stettler	43	ab	94	114	[5]	60	a-e	121	118	[5]	108	116	[10]
Superb	53	ab	115	113	[6]	67	a	135	123	[6]	125	118	[12]
SY 433	45	ab	98	105	[2]	58	a-e	118	108	[2]	108	106	[4]
Unity	45	ab	98	106	[5]	57	a-e	115	112	[5]	107	109	[10]
Vesper	50	ab	109	103	[3]	56	b-e	114	105	[3]	111	104	[6]
Whitehawk ***	40	ab	88	88	[1]	54	de	109	109	[1]	98	98	[2]
WR859 CL	42	ab	91	104	[5]	57	a-e	115	105	[5]	103	104	[10]
LSD (P=.05) =	9.39					5.59							
CV value (%) =	12.55					6.96							

\* first year tested, very limited data available

**Katepwa - check variety**

\*\* 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**  
**CDC Utmost, Goodeve, Shaw, Unity and Vesper are Wheat Midge Resistant varietal blends**

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

# CWRS Wheat

# Variety Descriptions

Variety	B.C. Peace Averages				Alberta Agdex 100/32								Distributor
	2007 - 2012				Resistance to:								
	Days to Maturity	Height	Bushel Weight	Kernel Protein %	Lodging	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB		
	+/- check	cm	lbs/bu	+/- check									
■ 5603HR	0.7	77	63	1 [10]	G	VG	G	G	P	G	F	Viterra	
■ 5604HR CL	-7.4	79	64	0 [8]	G	G	VG	VG	VP	P	F	Viterra	
■ AAC Bailey	-3.6	92	64	0 [4]	G	G	P	F	G	F	F	Canterra Seeds	
■ AAC Redwater *	-4.0	77	64	1 [2]								SeCan	
■ AC Barrie	-2.3	80	64	1 [12]	G	G	G	F	VP	P	F	SeCan	
■ AC Splendor	-4.0	79	63	1 [12]	F	F	F	F	F	F	P	SeCan	
■ BW931 *Δ	-1.9	71	64	1 [2]								Alliance Seed Corp.	
■ BW932 *Δ	-2.3	67	64	1 [2]								SeCan	
■ Carberry	-1.2	75	65	0 [8]	VG	F	G	G	G	P	G	SeCan	
■ Cardale *	-4.4	71	62	0 [2]								Seed Depot	
■ CDC Abound	-2.3	76	65	0 [12]	G	F	F	F	P	P	VP	Viterra	
■ CDC Alsask	-2.6	82	63	0 [12]	F	G	G	G	F	VP	P	Viterra	
■ CDC Go	-3.5	75	64	0 [12]	G	VP	P	G	G	VP	P	Public Variety	
■ CDC Kernen	0.0	84	64	0 [8]	G	F	VG	F	F	P	F	Canterra Seeds Seeds	
■ CDC Osler	-3.3	78	63	0 [12]	G	F	G	G	F	F	VP	Public Variety	
■ CDC Plentiful *	-1.7	75	64	1 [2]								FP Genetics	
■ CDC Stanley	-2.7	79	63	0 [8]	G	G	G	VP	F	F	P	Viterra	
■ CDC Thrive	-3.8	81	64	0 [8]	G	P	G	F	F	F	P	SeCan	
■ CDC Utmost	-0.9	79	64	0 [8]	G	G	P	VP	F	F	P	FP Genetics	
■ CDC VR Morris *	-1.0	70	64	1 [2]								Viterra	
■ Glenn	0.8	81	66	1 [8]	VG	F	F	F	G	F	F	Canterra Seeds	
■ Goodeve	-2.5	80	63	0 [12]	VG	G	G	P	F	P	VP	Alliance Seeds Corp.	
■ Harvest	-3.3	78	65	0 [12]	VG	VG	G	F	G	P	VP	FP Genetics	
■ Infinity	-1.0	80	63	0 [12]	G	G	G	F	P	P	VP	Canterra Seeds	
■ Katepwa	0.0	84	63	0 [12]	F	F	G	G	P	P	F	SeCan	
■ Muchmore	-1.0	71	65	0 [8]	VG	G	G	G	G	P	P	FP Genetics	
■ Shaw	-2.6	84	65	0 [8]	G	G	P	G	F	P	P	SeCan	
■ Snowstar **	-4.0	74	65	0 [12]	XX	G	P	P	P	F	P	SeCan	
■ Stettler	0.0	76	65	0 [10]	G	G	G	G	G	P	P	SeCan	
■ Superb	-1.7	78	65	0 [12]	G	F	F	G	VP	VP	P	SeCan	
■ SY 433	-2.1	96	65	0 [4]	G	G	F	VP	XX	F	G	Syngenta	
■ Unity	-1.7	77	64	0 [10]	G	G	P	VG	P	P	P	SeCan	
■ Vesper	-3.7	88	65	1 [6]	VG	F	F	P	VP	F	F	SeCan	
■ Whitehawk * **	-3.0	77	64	-1 [2]	G	G	F	P	VP	P	F	SeCan	
■ WR859 CL	-4.2	72	64	0 [10]	G	G	VG	VG	F	P	G	Syngenta	

\* 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

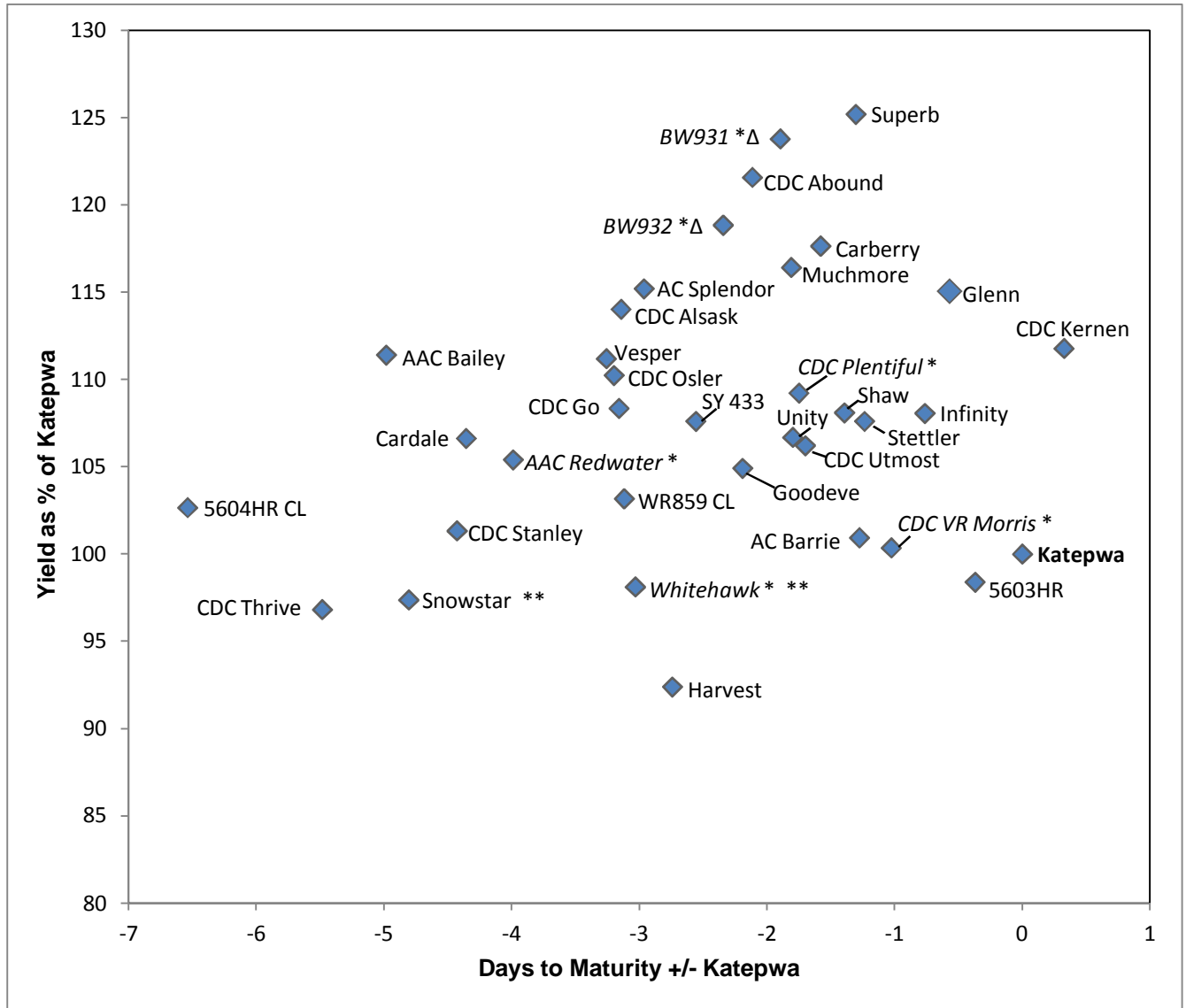
Average protein for **Katepwa** is **13.3 %**

**Unity** is a Wheat Midge Resistant variety

Overall average maturity for **Katepwa** is **104 days**

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**Katepwa - check variety**



Average maturity for **Katepwa** is **98 days** for **2012**

\* first year tested, very limited data available

\*\* CWHWS Canadian Western Hard White Spring Wheat

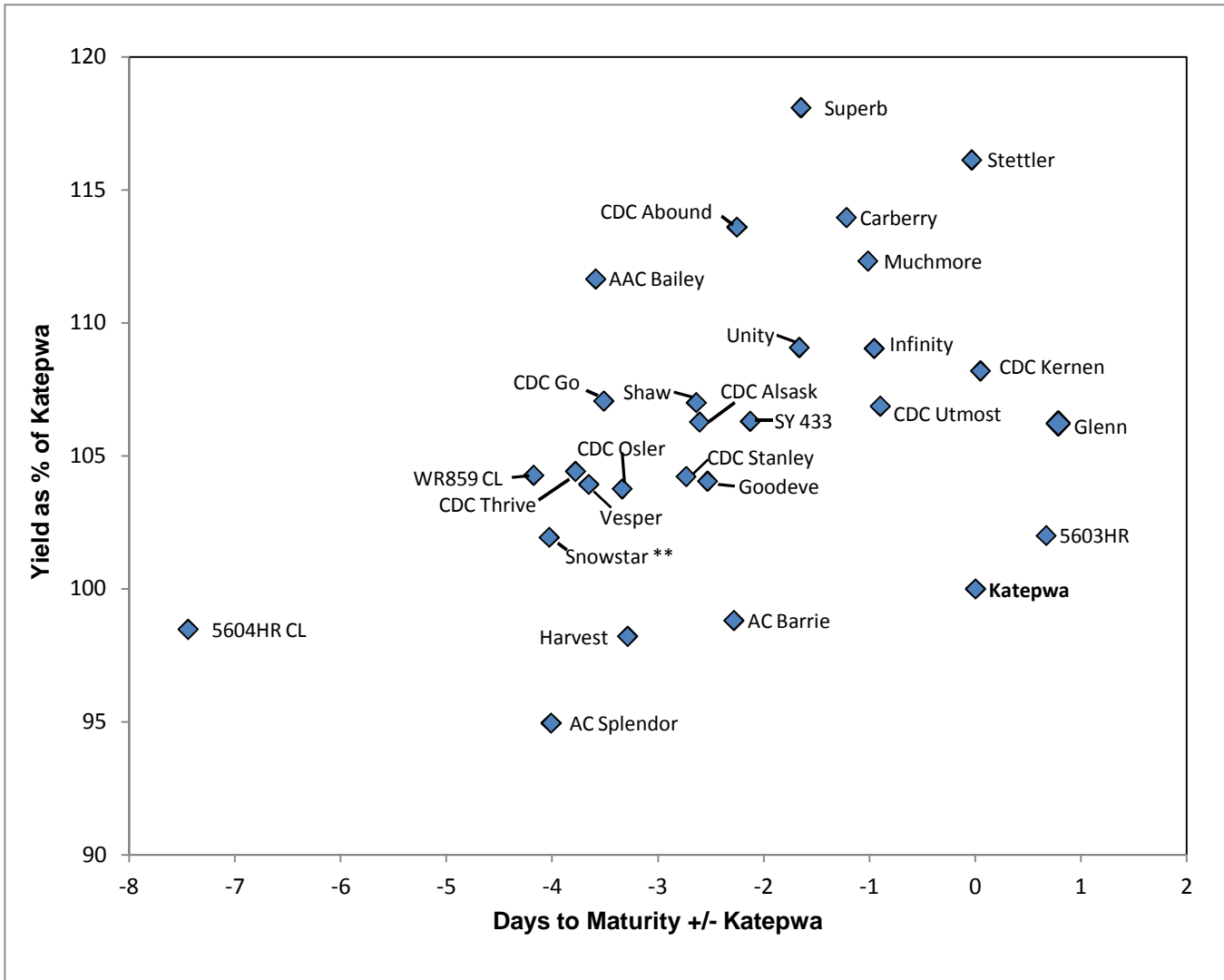
Δ denotes materials not registered, very limited data available

**Katepwa - check variety**

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

CDC Utmost, Goodeve, Shaw, Unity and Vesper are Wheat Midge Resistant varietal blends

**CWRS Wheat Regional Variety Performance 2007 - 2012**



Overall Average maturity for **Katepwa** is **104** days

\*\* CWHWS Canadian Western Hard White Spring Wheat

**Katepwa - check variety**

**WR859 CL, CDC Abound and 5604HR CL** are Clearfield® tolerant varieties  
**CDC Utmost, Goodeve, Shaw, Unity and Vesper** are Wheat Midge Resistant varietal blends

## 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			
		2012 Yield		2007 - 2012		2012 Yield		2007 - 2012		2012	2007-2012		
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
<b>5700PR</b>	CPS-red	--	--	100	[5]	63	abc	100	100	[6]	100	100	[11]
5702PR	CPS-red	--	--	99	[5]	66	ab	105	105	[6]	105	102	[11]
AC Andrew	CWSWS	--	--	107	[5]	68	a	109	111	[6]	109	109	[11]
AC Crystal ***	CPS-red	--	--	85	[4]	62	abc	99	92	[5]	99	89	[9]
CDC NRG003	CWGP	--	--	94	[2]	61	abc	98	95	[3]	98	95	[5]
Conquer	CPS-red	--	--	92	[2]	58	bc	93	89	[3]	93	91	[5]
<i>Enchant</i> *	CPS-red	--	--	0	[0]	57	c	91	91	[1]	91	91	[1]
<i>HY1312</i> *Δ	CPS-red	--	--	0	[0]	64	abc	102	102	[1]	102	102	[1]
Minnedosa	CPS-white	--	--	91	[2]	62	abc	100	93	[3]	100	92	[5]
NRG010	CPS-white	--	--	99	[3]	66	ab	106	99	[4]	106	99	[7]
<i>Pasteur</i> *	CWGP	--	--	0	[0]	67	a	108	108	[1]	108	108	[1]
Superb (CWRS)	CWRS	--	--	99	[4]	63	abc	101	100	[5]	101	99	[9]
SY 985	CPS-red	--	--	91	[2]	62	abc	98	92	[3]	98	91	[5]
LSD (P=.05) =		0.00				5.18							
CV value (%) =		0.00				5.75							

\* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

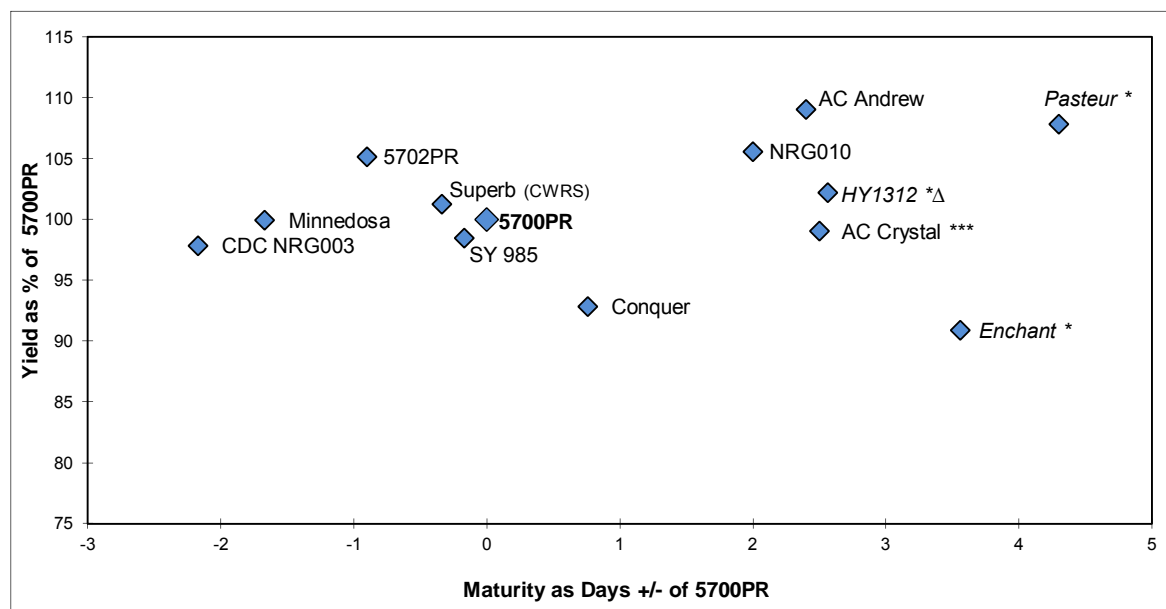
**5700PR - check variety**

\*\*\* denotes semi-dwarf stature

**Enchant** and **Conquer** are Wheat Midge tolerant Varietal Blend

Note: CPS trial data from Dawson Creek 2012 was not used due to unacceptable CV value from adverse environment.

## CPS / CWSWS Wheat Regional Variety Performance 2012



Δ denotes materials not registered, very limited data available

Average maturity for **5700PR** is 98 days for 2012

**CPS / CWSWS Wheat** **Variety Descriptions**

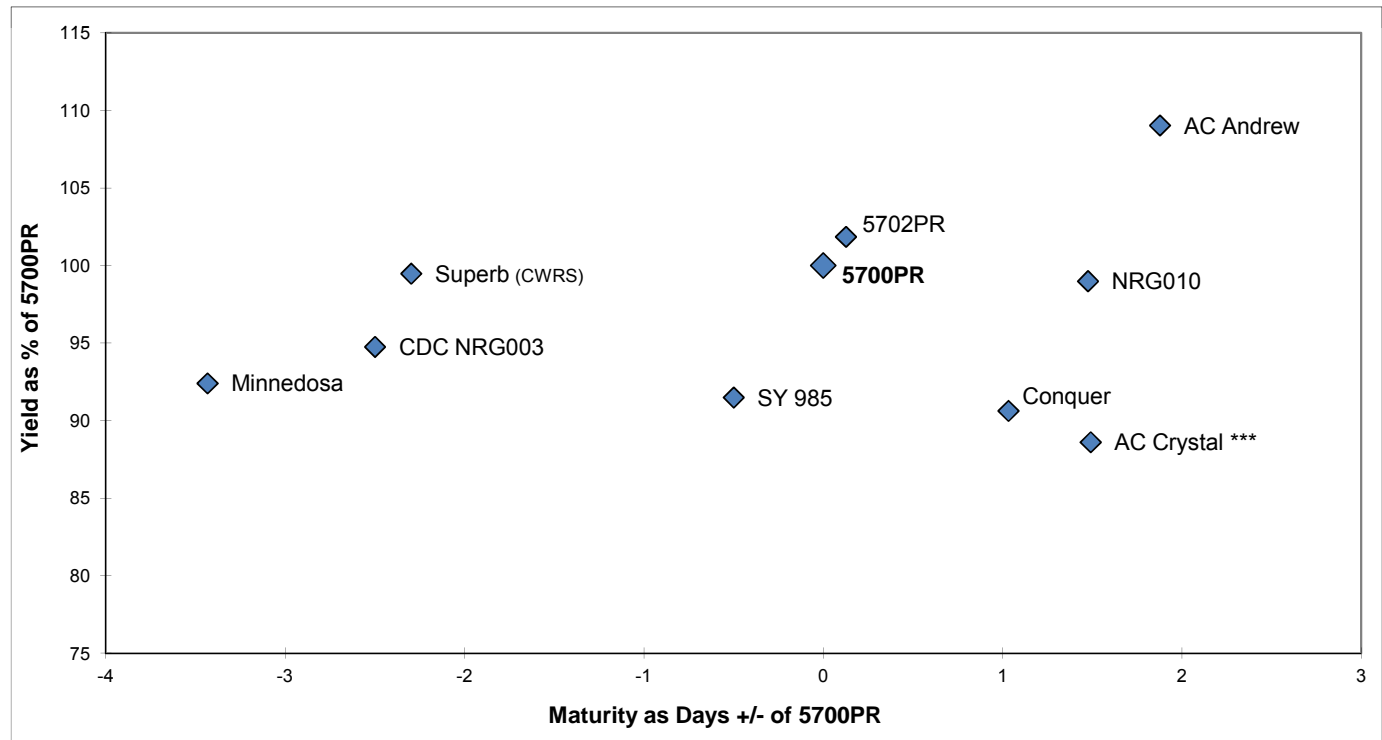
Variety	Type	B.C. Peace Averages				Alberta Agdex 100/32								Distributor
		2007-2012				Resistance to:								
		Maturity in days +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check	Lodging	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB		
■ <b>5700PR</b>	CPS-red	0.0	69	64	0 [11]	VG	F	P	G	P	P	VP	Viterra	
■ 5702PR	CPS-red	0.1	73	63	0 [11]	G	P	P	F	P	F	P	Viterra	
AC Andrew	CWSWS	1.9	72	64	-1 [11]	VG	P	VP	P	F	P	VP	SeCan	
■ AC Crystal ***	CPS-red	1.5	70	64	1 [9]	G	P	F	VG	VP	F	VP	SeCan	
■ CDC NRG003	CWGP	-2.5	80	64	0 [5]	G	F	G	VG	VP	P	VP	Canterra Seeds	
■ Conquer	CPS-red	1.0	85	64	2 [5]	G	P	P	G	VG	F	P	Canterra Seeds	
■ <i>Enchant</i> *	CPS-red	3.6	78	65	1 [1]								FP Genetics	
■ <i>HY1312</i> * Δ	CPS-red	2.6	73	65	1 [1]								SeCan	
■ Minnedosa	CPS-white	-3.4	83	64	1 [5]	G	G	F	G	G	P	P	SeCan	
■ NRG010	CPS-white	1.5	78	64	0 [7]	G	P	VG	VG	VG	F	VP	Canterra Seeds	
<i>Pasteur</i> *	CWGP	4.3	71	66	0 [1]								SeCan	
■ Superb	CWRS	-2.3	74	65	1 [9]	G	F	F	G	VP	VP	P	SeCan	
SY 985	CPS-red	-0.5	78	65	1 [5]	G	F	VG	G	G	F	F	Viterra	

\* first year tested, very limited data available  
 VG = very good, G = good, F = fair, P = Poor, VP = very poor  
 XX = insufficient data  
 "blanked *Tolerance* data" = no data available yet (too new)  
 Δ denotes materials not registered, very limited data available  
 \*\*\* denotes semi-dwarf stature  
 Numbers in square brackets [ ] is number of station years collected for protein

**5700PR - check variety**

■ Protected by Plant Breeders' Rights  
**Enchant** and **Conquer** are Wheat Midge tolerant Varietal Blends  
 Overall average maturity for **5700PR** is **106** days.  
 Overall average protein for **5700PR** is **11.7** %

**CPS / CWSWS Wheat** **Regional Variety Performance** **2007-2012**



# 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). Years 2009 (first year testing durum), 2010, and again 2012, were all years where drought shortened the growing season and as such allowed durum to mature easily in our region. More testing is thus needed with regards to identifying whether maturity is suitable to the Peace River Region. 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. *Disclosure of this data is therefore not currently a recommendation to grow durum in the Peace Region.*

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 currently. For this reason 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 in 2011 it would have been bad news for anything later than a CWRS wheat no matter how many days later, a bit of a concern for any other late years still to come in the future. In 2012, durum finished up similar to the maturity needed to that of a later CPS, thus an acceptable length of time but more research is needed as mentioned above.

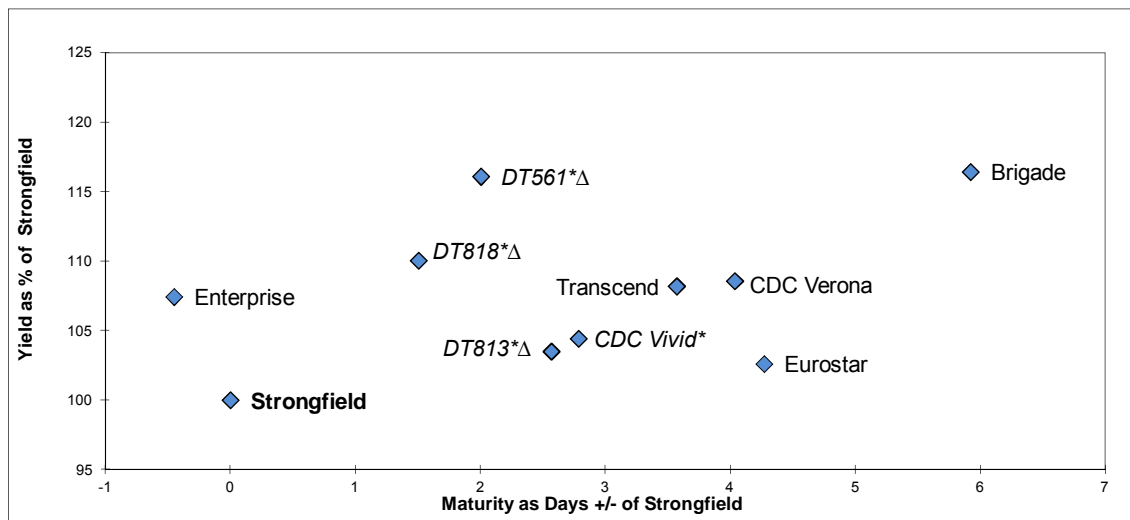
Durum Wheat		Yield as % of Strongfield										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2012 Yield		2009 - 2012		2012 Yield		2009 - 2012		2012	2009 - 2012	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
Brigade	CWAD	48 a	136	110	[4]	57 ab	97	103	[4]	116	107	[8]
CDC Verona	CWAD	42 a	117	102	[4]	59 ab	100	106	[4]	109	104	[8]
CDC Vivid *	CWAD	38 a	107	107	[1]	60 ab	102	102	[1]	104	104	[2]
DT561*Δ	CWAD	44 a	123	123	[1]	64 a	109	109	[1]	116	116	[2]
DT813*Δ	CWAD	36 a	101	101	[1]	62 ab	106	106	[1]	103	103	[2]
DT818*Δ	CWAD	43 a	122	122	[1]	58 ab	98	98	[1]	110	110	[2]
Enterprise	CWAD	43 a	121	108	[4]	55 b	93	102	[4]	107	105	[8]
Eurostar	CWAD	39 a	109	103	[4]	57 ab	96	104	[4]	103	103	[8]
<b>Strongfield</b>	CWAD	35 a	100	100	[4]	59 ab	100	100	[4]	100	100	[8]
Transcend	CWAD	41 a	117	102	[3]	59 ab	100	101	[3]	108	102	[6]
LSD (P=.05) =		9.75				5.14						
CV value (%) =		13.92				6.01						

\* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

**Strongfield - check variety**

## Durum Wheat Regional Variety Performance 2012



Δ denotes materials not registered, very limited data available

Average maturity for Strongfield is 96 days for 2012



**Durum Wheat** **Variety Descriptions**

Variety	Type	B.C. Peace Averages 2009 - 2012				Alberta Agdex 100/32										Distributor
		Maturity	Height	Bushel	Kernel	Resistance to:										
		in days +/- check	cm	Weight lbs/bu	Protein % +/- check	Lodging	Shatter	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB			
■ Brigade	CWAD	1.7	81	64	-1 [8]	G	XX	F	P	G	G	F	P	Viterra		
■ CDC Verona	CWAD	0.7	75	64	-1 [8]	G	XX	F	P	G	VG	P	P	Alliance Seed Corp.		
■ CDC Vivid *	CWAD	2.8	76	63	0 [2]									Viterra		
■ DT561*Δ	CWAD	2.0	75	64	0 [2]									Syngenta		
■ DT813*Δ	CWAD	2.6	72	65	0 [2]									Alliance Seed Corp.		
■ DT818*Δ	CWAD	1.5	76	63	1 [2]									AAFC Lacombe		
■ Enterprise	CWAD	-0.9	77	64	-1 [8]	G	XX	F	P	G	VG	G	P	Canterra Seeds		
■ Eurostar	CWAD	2.0	82	65	0 [8]	G	XX	F	P	VG	VG	F	P	SeCan		
■ Strongfield	CWAD	0.0	73	64	0 [8]	F	VG	F	VP	G	G	P	VP	SeCan		
■ Transcend	CWAD	1.6	84	64	0 [6]	F	XX	F	VP	VG	VG	F	P	FP-Genetics		

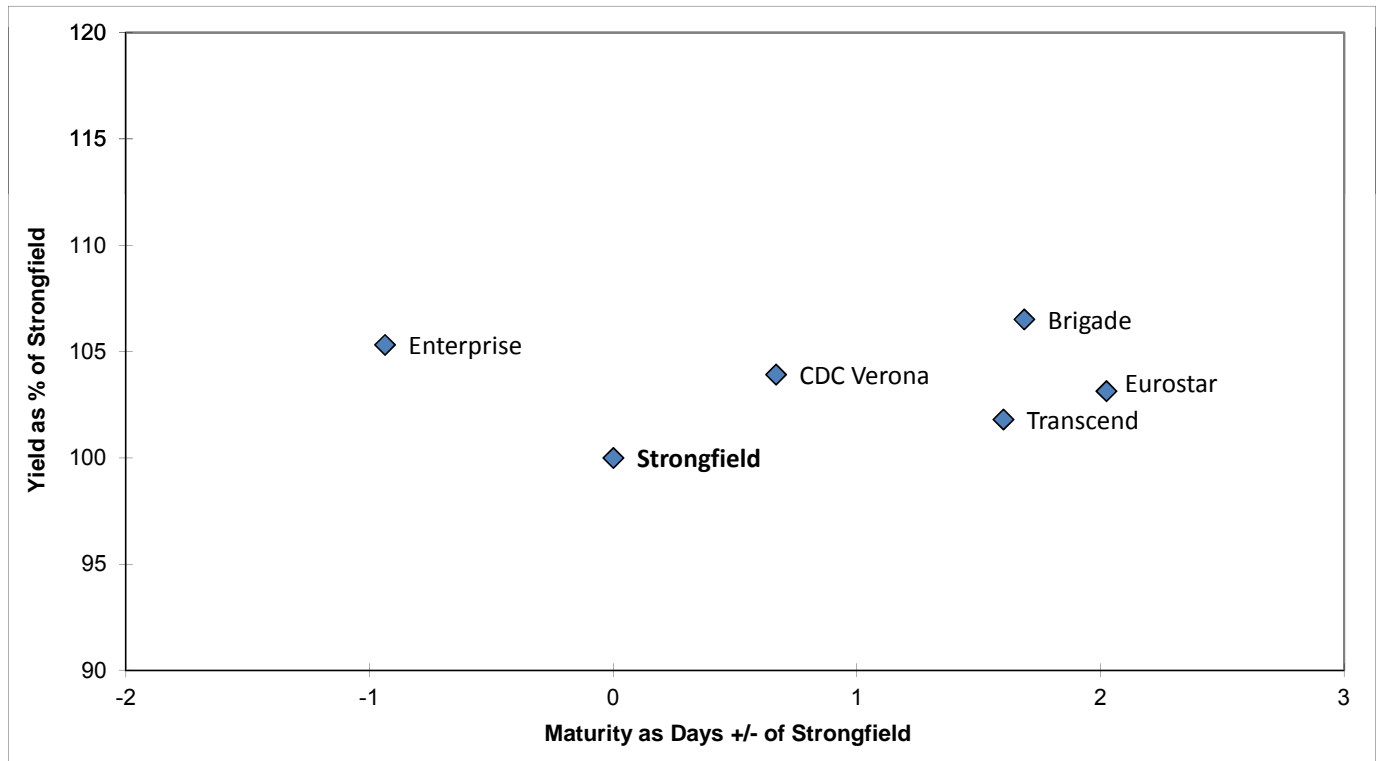
\* first year tested, very limited data available VG = very good, G = good, F = fair, P = poor, VP = very poor  
XX = insufficient data

**Strongfield - check variety**  
 ■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available  
 Numbers in square brackets [ ] is number of station years collected for protein

Overall average maturity for **Strongfield** is **107** days.  
 Overall average protein for **Strongfield** is **14.5** %

**Durum Wheat** **Regional Variety Performance** **2009-2012**



# Barley

Six Row Barley		Yield as % of AC Metcalfe													
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace					
		2012 Yield		2007-2012		2012 Yield		2007-2012		2012	2007-2012				
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.			
AC Lacombe	Feed	89	a	111	105	[5]	91	a	106	103	[6]	109	104	[11]	
<b>AC Metcalfe</b>	Malt	80	ab	100	100	[5]	85	a	100	100	[6]	100	100	[11]	
CDC Anderson	Malt	73	b	91	101	[2]	85	a	100	106	[2]	95	104	[4]	
CDC Mayfair	Malt	83	ab	104	103	[5]	86	a	100	96	[5]	102	99	[10]	
Celebration	Malt	86	ab	107	104	[3]	91	a	107	100	[3]	107	102	[6]	
Muskwa	Feed	91	a	113	114	[2]	92	a	108	111	[2]	111	113	[4]	
Sundre ***	Feed	81	ab	101	102	[5]	96	a	113	111	[6]	107	107	[11]	
Vivar **	Feed	92	a	115	107	[5]	96	a	113	105	[6]	114	106	[11]	
LSD (P=.05) =		9.70				7.14									
CV value (%) =		7.82				5.40									

Two Row Barley		Yield as % of AC Metcalfe													
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace					
		2012 Yield		2007-2012		2012 Yield		2007-2012		2012	2007-2012				
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.			
AAC Synergy *	Malt	82	ab	101	101	[1]	86	d-g	104	104	[1]	103	103	[2]	
<b>AC Metcalfe</b>	Malt	81	ab	100	100	[6]	83	efg	100	100	[6]	100	100	[12]	
Bentley	Malt	79	ab	97	105	[5]	84	efg	101	101	[5]	99	103	[10]	
CDC Austenson	Feed	81	ab	100	106	[5]	94	bcd	114	108	[5]	107	107	[10]	
CDC Clear ¶	Malt	55	b	84	93	[2]	71	def	106	101	[2]	95	97	[4]	
CDC Kindersley	Malt	77	ab	95	106	[3]	88	def	106	101	[3]	101	103	[6]	
CDC Maverick ***	Feed	75	b	92	98	[2]	80	g	96	98	[2]	94	98	[4]	
CDC Meredith	Malt	82	ab	100	109	[5]	91	cde	110	108	[5]	105	108	[10]	
CDC PolarStar	Malt	78	ab	95	98	[2]	82	fg	99	95	[2]	97	97	[4]	
Cerveza	Malt	84	ab	104	111	[4]	88	def	107	106	[4]	105	108	[8]	
Champion	Feed	99	a	122	131	[6]	103	a	124	107	[6]	123	119	[12]	
Gadsby	Feed	83	ab	102	111	[3]	97	abc	117	111	[3]	110	111	[6]	
Major	Malt	74	b	91	100	[4]	90	c-f	108	101	[4]	99	101	[8]	
Merit 57	malt	89	ab	110	115	[5]	91	cde	110	108	[5]	110	111	[10]	
Newdale	Malt	80	ab	98	109	[6]	87	d-g	105	104	[6]	101	107	[12]	
TR07728	Feed	86	ab	106	114	[4]	94	bcd	113	106	[4]	110	110	[8]	
XENA	Feed	79	ab	97	114	[6]	100	ab	121	100	[6]	109	107	[12]	
LSD (P=.05) =		12.96				5.26									
CV value (%) =		11.18				4.10									

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
		2007-2012				Resistance to							
		Days to Maturity	Height	Bushel Weight	Kernel Protein %	Lodging	Loose Smut	False Smut	Root Rot	Scald	FHB		
		+/- check	cm	lbs/bu	+/- check								
Eligible for General Purpose Grades Only													
■ AC Lacombe	6 row	-0.7	75	50	-1 [11]	G	P	G	P	P	VP	SeCan	
■ CDC Austenson	2 row	4.2	69	55	-1 [10]	G	VP	VG	F	VP	F	SeCan	
■ Champion	2 row	2.3	71	56	-1 [12]	G	VP	VG	XX	VP	F	Viterra	
■ Gadsby	2 row	3.2	86	56	0 [6]	F	VG	VG	F	VG	F	SeCan	
■ Muskwa	6 row	0.4	88	54	-1 [4]	G	P	VG	P	G	VP	SeedNet	
■ Sundre ***	6 row	5.7	80	53	-1 [11]	G	P	VG	P	VG	VP	Mastin Seeds, AB	
■ TR07728	2 row	1.9	75	56	0 [8]	G	P	VG	G	VP	F	Viterra	
■ XENA	2 row	1.1	71	55	0 [12]	G	P	P	G	VP	G	Viterra	
Semi-dwarf varieties													
■ Vivar **	6 row	-0.6	70	51	-1 [11]	VG	F	VG	G	F	VP	SeCan	
Forage varieties													
■ CDC Maverick ***	2 row	3.2	108	57	1 [4]	F	VP	VG	F	P	G	SeCan	

## Malt Barley

## Variety Descriptions

Variety	Type	B.C. Peace Averages				Alberta Agdex 100/32 info							Distributor
		2007-2012				Resistance to							
		Days to Maturity	Height	Bushel Weight	Kernel Protein %	Lodging	Loose Smut	False Smut	Root Rot	Scald	FHB		
		+/- check	cm	lbs/bu	+/- check								
■ AAC Synergy *	2 row	-0.5	72	56	-1 [2]							Syngenta	
■ AC Metcalfe	2 row	0.0	72	55	0 [23]	F	VG	F	F	VP	F	SeCan	
■ Bentley	2 row	0.2	73	53	0 [10]	G	P	G	G	VP	P	Canterra Seeds	
■ CDC Anderson	6 row	-1.6	94	53	0 [4]	G	G	VG	F	P	F	SeCan	
■ CDC Kindersley	2 row	-3.3	80	56	0 [6]	G	VP	VG	F	VP	F	SeCan	
■ CDC Mayfair	6 row	-5.6	71	51	0 [10]	G	VP	G	F	VP	P	Canterra Seeds	
■ CDC Meredith	2 row	3.2	69	54	-1 [10]	F	VG	G	G	VP	F	SeCan	
■ CDC PolarStar	2 row	-2.4	96	55	0 [4]	G	VP	VG	P	VP	G	Canterra Seeds	
■ Celebration	6 row	-5.9	86	53	1 [6]	VG	VG	VG	P	VP	P	Canterra Seeds	
■ Cerveza	2 row	1.0	75	54	0 [8]	F	VG	VG	F	VP	F	Mastin Seeds, AB	
■ Major	2 row	-0.1	73	54	0 [8]	G	VG	G	F	P	F	Viterra	
■ Merit 57	2 row	3.6	72	54	-1 [10]	F	P	VP	F	P	G	Canterra Seeds	
■ Newdale	2 row	-0.1	70	54	0 [12]	F	VP	G	G	P	F	FP Genetics	
Hulless varieties													
■ CDC Clear ¶	2 row	-0.6	98	64	0 [4]	F	VG	VG	F	VP	G	U of S	

\* 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 **92** days

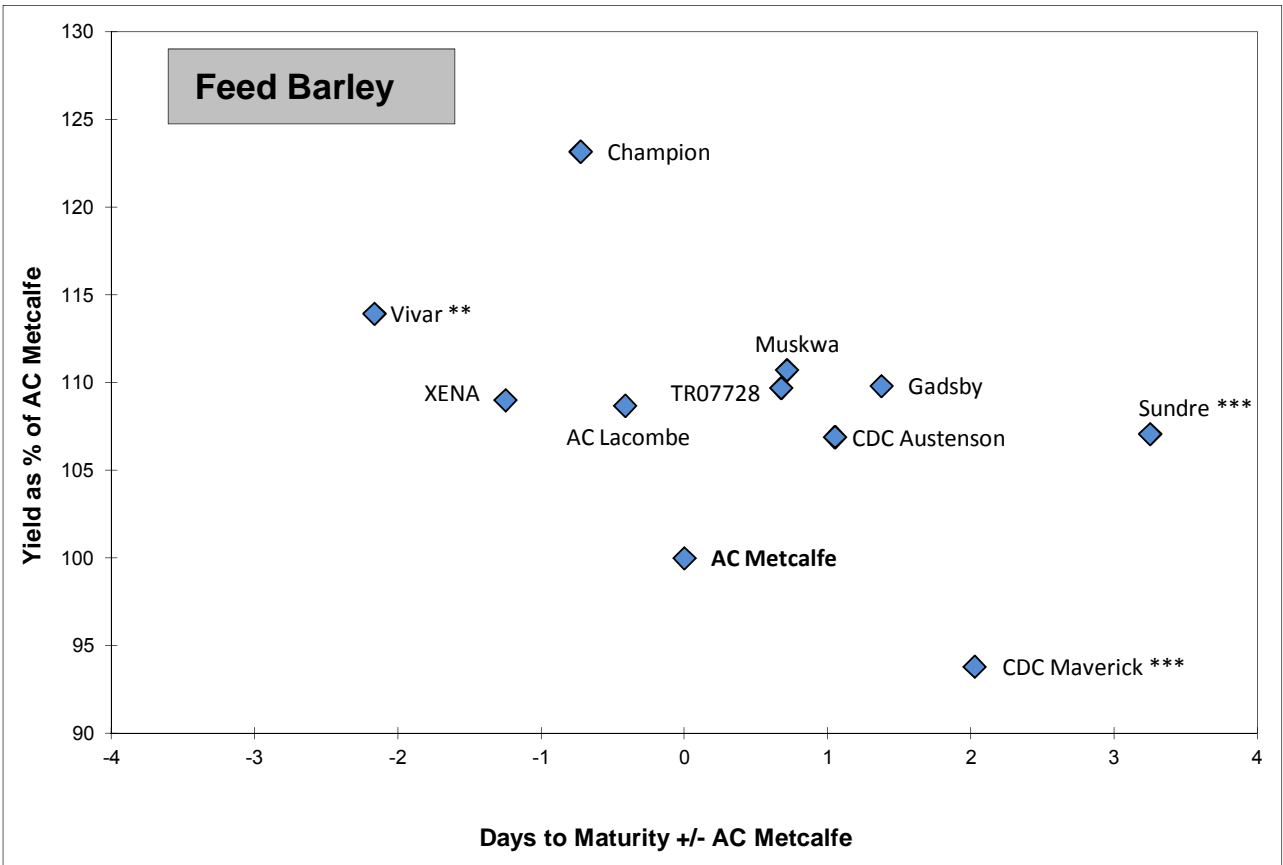
△ denotes materials not registered, very limited data available

Overall average protein for **AC Metcalfe** is **13.6%**

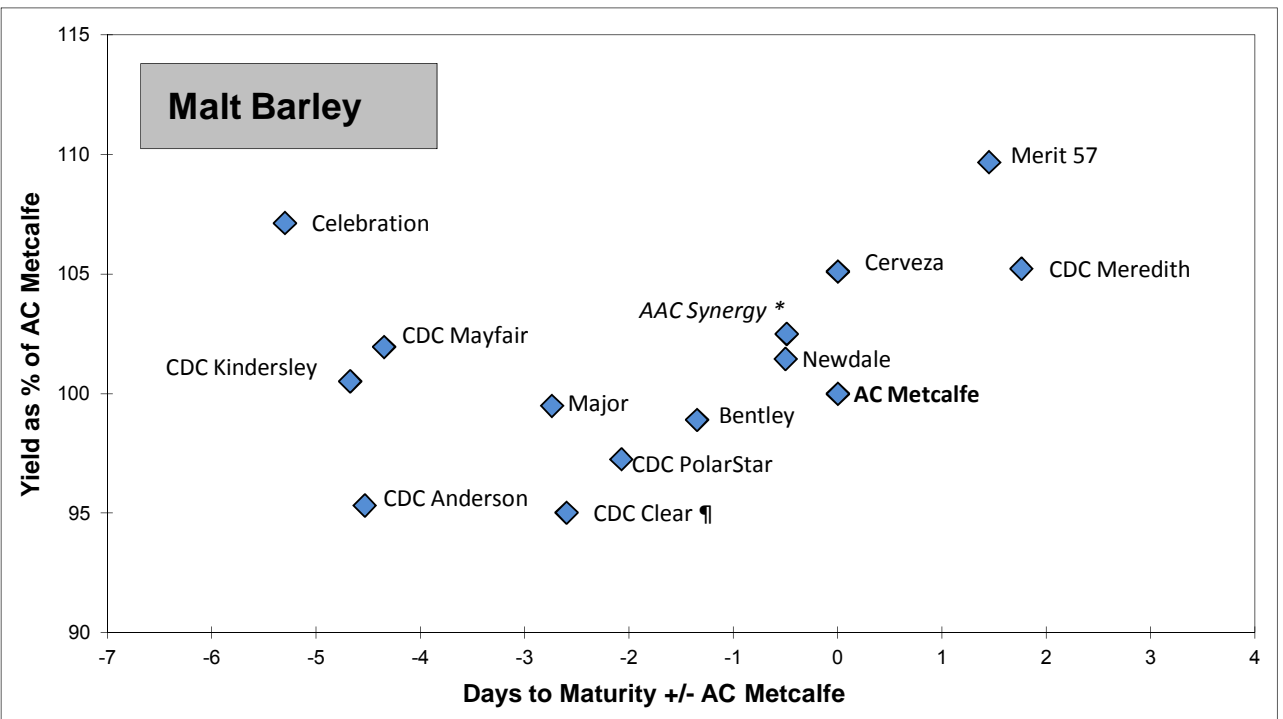
Numbers in square brackets [ ] is number of station years collected for protein

**AC Metcalfe - check variety**

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

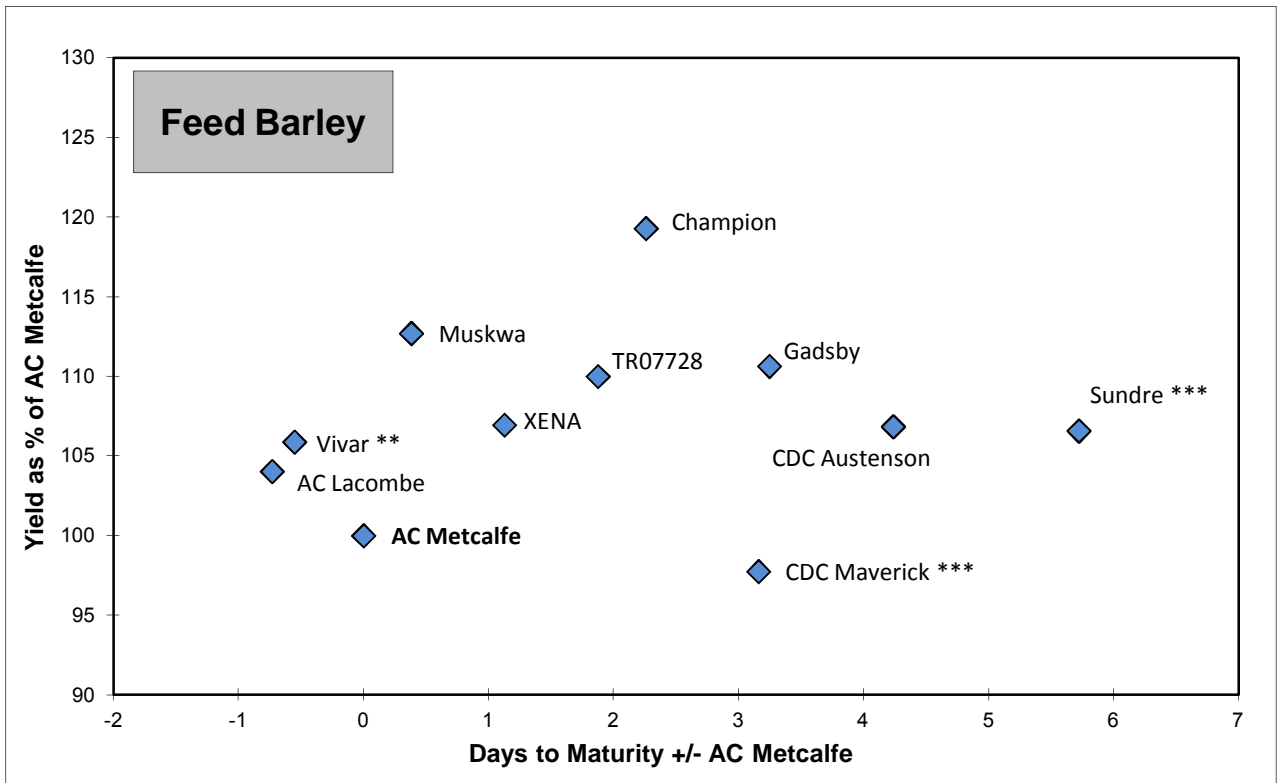


Average maturity for AC Metcalfe in 2012 is 87 days (both graphs)

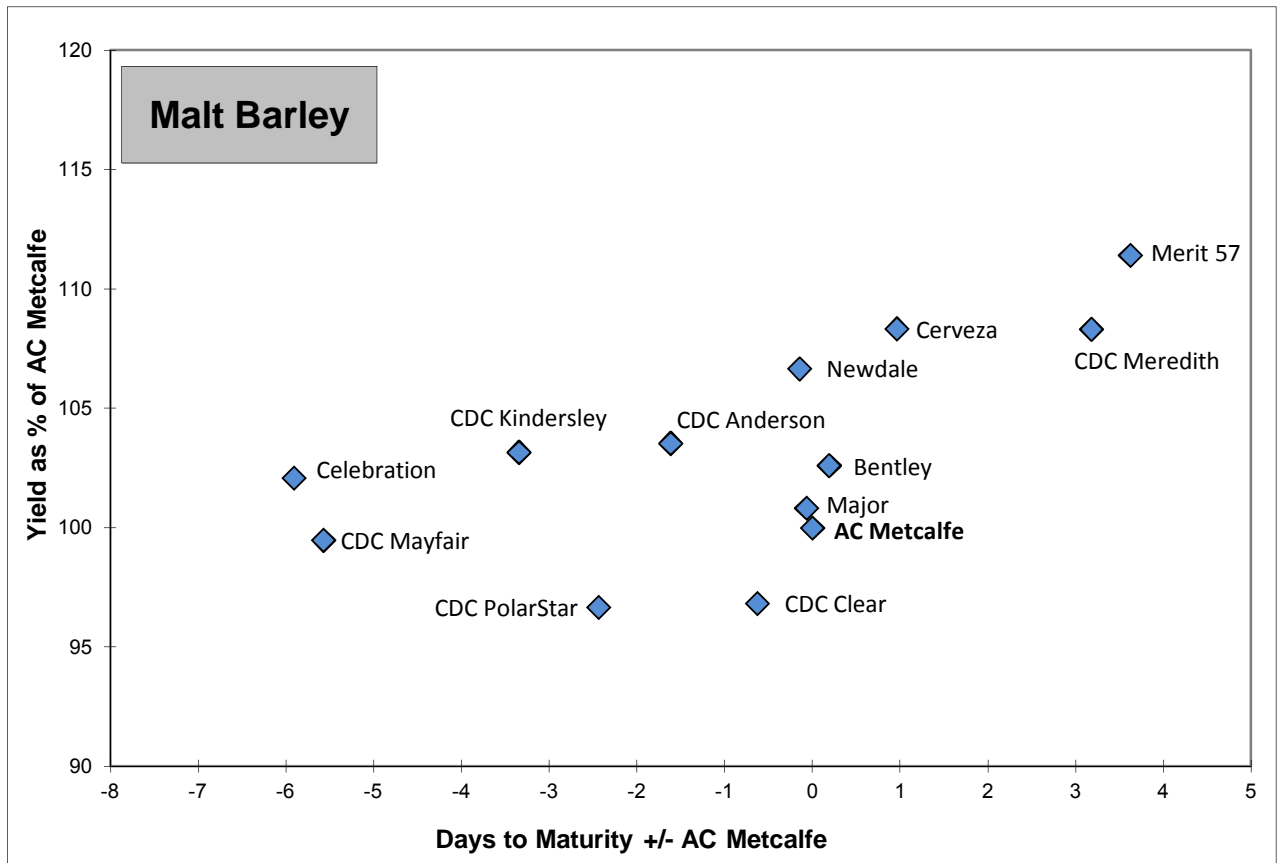


\* first year tested materials  
 \*\* semi-dwarf type  
 \*\*\* smooth-awned type

△ denotes materials not registered  
 ¶ denotes hullless seed types (bu/ac adjusted for hullless)



Overall average maturity for AC Metcalfe is 92 days (both graphs)



\*\* semi-dwarf type

\*\*\* smooth-awned type

Δ denotes materials not registered

## 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 rule is the new "hairless hulless" types such as the variety *Gehl*, included for the first time in our tests back in 2011, which is a "low pubescence hulless" oat aimed at a replacement for rice actually, hence the marketing slogan "prairie rice" for it. *Gehl* was re-tested in 2012 but developed emergence issues thus yield data is not displayed below for the year 2012. Investigations continue as to why the hairless hulless variety *Gehl* had such emergence issues after giving such a good germ pre-plant in the lab. A potential contracted market in the Peace River area is a real possibility if agronomics work out for *Gehl* or other hairless hulless oat types. 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 2012 report) there are no "low pubescence" hulless oat types displayed. (See earlier reports for more information on both "traditional hulless" types and *Gehl*).

Oat		Yield as % of CDC Dancer										
Variety	Colour	Dawson Creek				Fort St. John				B.C. Peace		
		2012 Yield		2007-2012		2012 Yield		2007-2012		2012	2007-2012	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Mustang	White	114 b	111	115	[6]	105 a	101	112	[6]	106	114	[12]
CDC Big Brown	Brown	107 bc	104	99	[3]	97 cd	94	105	[3]	99	102	[6]
<b>CDC Dancer</b>	White	103 bc	100	100	[6]	104 bc	100	100	[6]	100	100	[12]
CDC Minstrel	White	97 bc	94	94	[6]	106 d	103	103	[6]	98	98	[12]
CDC Nasser	Yellow	98 bc	95	95	[2]	94 abc	90	100	[2]	93	98	[4]
CDC Seabiscuit	Yellow	104 bc	101	94	[2]	103 cd	100	104	[2]	101	99	[4]
CDC SO-I	Tan/Brown	104 bc	101	96	[3]	107 abc	103	107	[3]	102	101	[6]
Lu	Yellow	109 bc	106	100	[6]	102 e	98	101	[6]	102	100	[12]
OT3054 *Δ	White	80 c	78	78	[1]	84 abc	81	81	[1]	80	80	[2]
OT3056 *Δ	White	100 bc	97	97	[1]	94 cd	91	91	[1]	94	94	[2]
<i>Souris</i> *	Yellow	94 bc	91	91	[1]	106 a	103	103	[1]	97	97	[2]
Stride	White	93 bc	91	93	[2]	90 0	87	96	[2]	89	95	[4]
Triactor	White	134 a	130	117	[6]	108 0	105	109	[6]	117	113	[12]
LSD (P=.05) =		18.64				10.76						
CV value (%) =		12.71				7.52						

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

\* first year tested, very limited data available

**CDC Dancer - check variety**

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 is 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. Oat is higher in these components than any other whole grain, such as wheat, barley, corn or rice. Rich in Vitamin B1 oat 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.

Oats		Variety Descriptions					
Variety	Type	BC Peace Averages 2007 - 2012			Alberta Agdex 100/32 info		Distributor
		Maturity as days +/- check	Height cm	Bushel Weight lbs/bu	Tolerance to:		
					Lodging	Smuts	
AC Mustang	Feed/forage	4.6	90	43	G	F	Mastin Seeds
■ CDC Big Brown	Milling	5.1	87	43	G	VG	SeCan
■ <b>CDC Dancer</b>	Milling	0.0	83	41	G	VG	FP Genetics
CDC Minstrel	Milling	3.1	76	42	VG	VG	FP Genetics
CDC Nasser	Feed	9.2	75	39	G	G	T & L Seeds
■ CDC Seabiscuit	Milling	9.6	90	41	G	G	Canterra Seeds
■ CDC SO-I	Feed	0.3	81	40			T & L Seeds
Lu	Feed	-2.0	81	41	G	VG	SeCan
OT3054 *Δ	Milling	11.5	71	38			FP Genetics
OT3056 *Δ	Milling	10.5	74	41			U of S
■ <i>Souris</i> *	Milling	4.8	66	40			Seed Depot
■ Stride	Milling	4.9	96	44	G	VG	AAFC-Lacombe
■ Triactor	Milling/Feed	3.5	79	39	G	VG	Canterra Seeds

**CDC Dancer - check variety**

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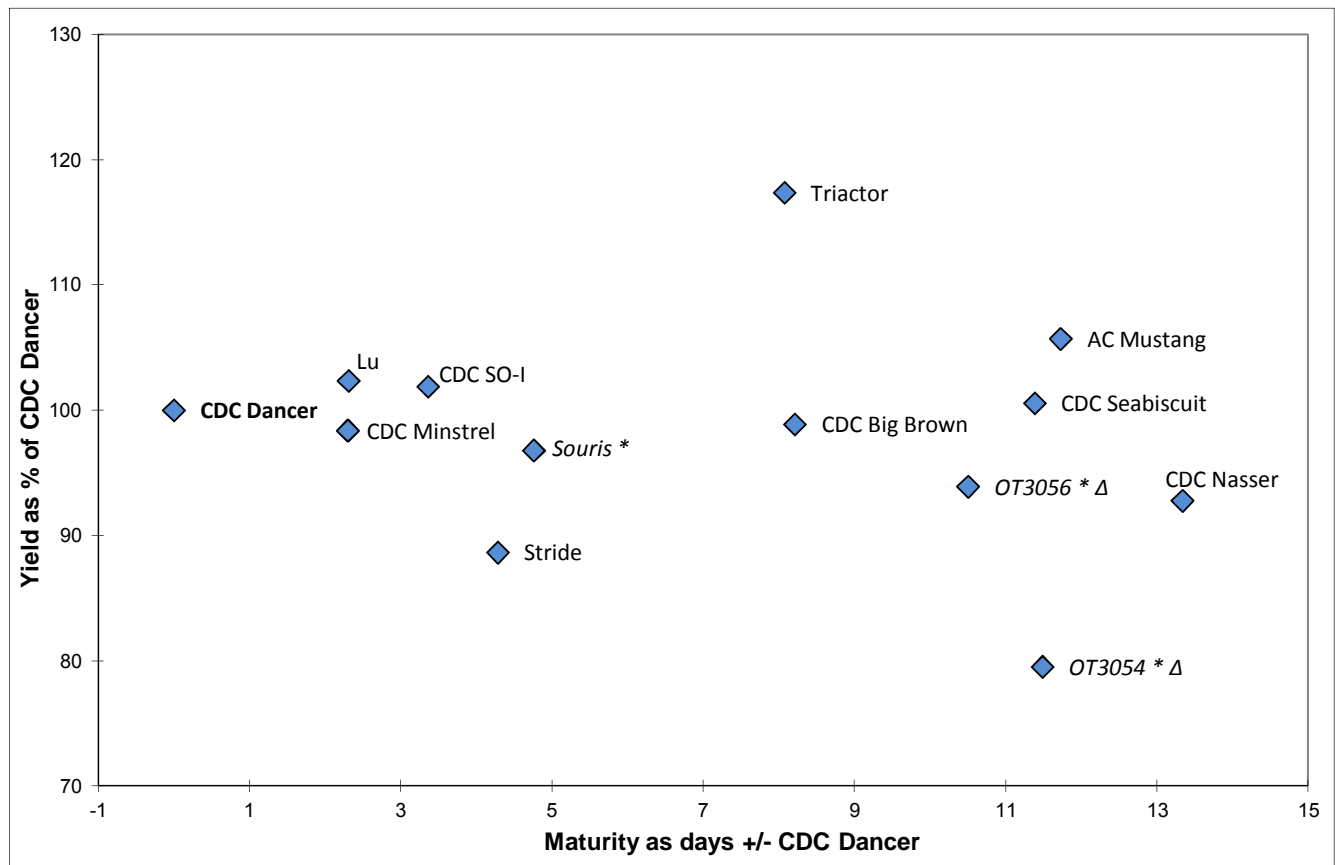
Overall average maturity for **CDC Dancer** is **94** days

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

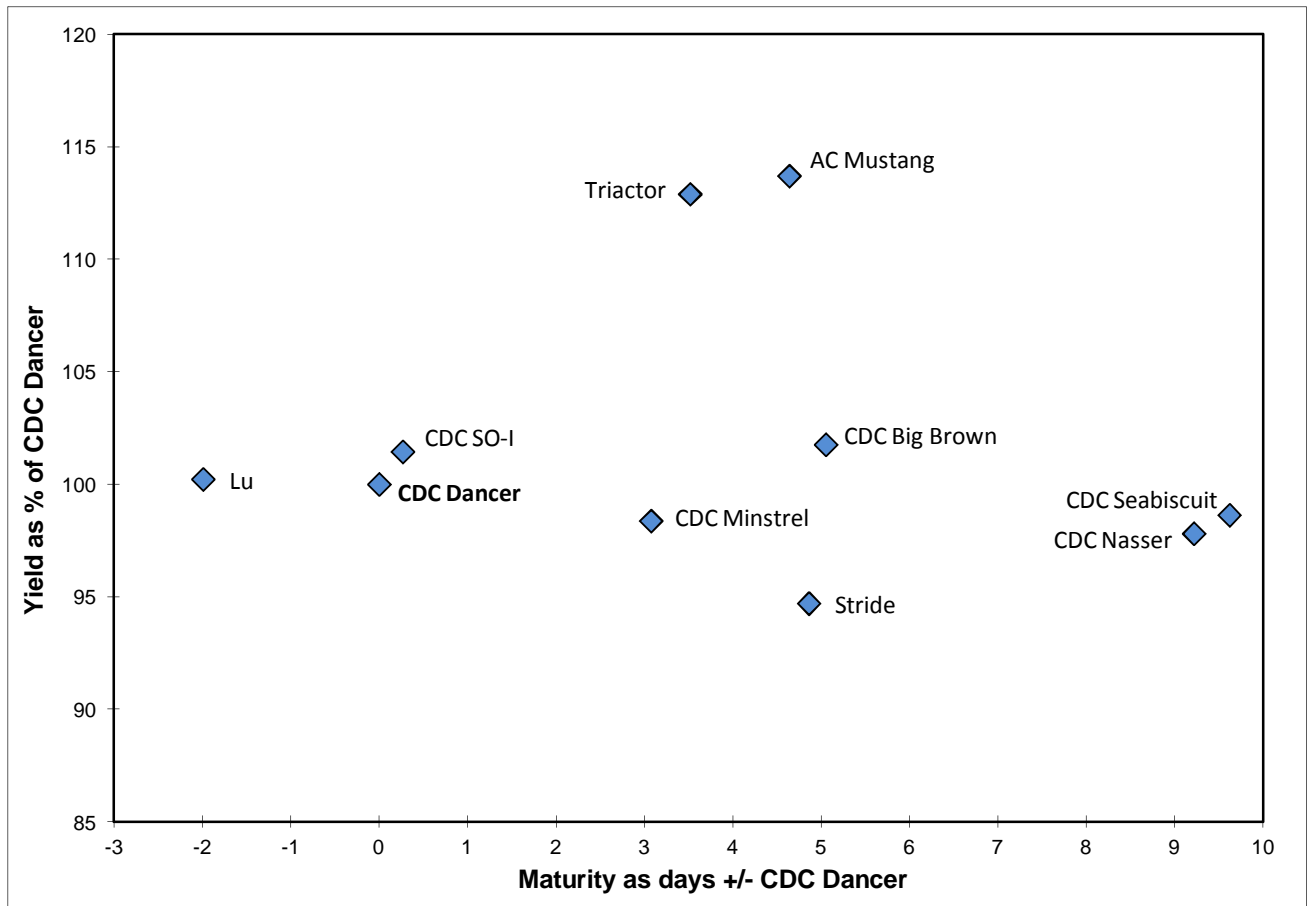
\* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

**Oats Regional Variety Performance 2012**



Average maturity for **CDC Dancer** in **2012** is **83** days



Overall average maturity for CDC Dancer is **94** days

### Oats 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 protein<sup>1</sup>. Many years of comparing yields of oats with barley have shown oats to be superior in the Black and Grey Wooded soil zones<sup>1</sup>. 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 barley<sup>1</sup>. Oats have about 22-26 percent hull whereas barley averages about 12-14 per cent hull on a weight basis<sup>1</sup>. 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 grain<sup>1</sup>. We do not currently evaluate oat varieties for forage yield in these tests.

### Forage Oats

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 leafiness<sup>2</sup>. 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 criterion<sup>3</sup>. The average feed values are: protein 4%, fibre 49%, calcium 0.27%, and phosphorus 0.08%<sup>3</sup>.

Source<sup>1,2,3</sup>: Alberta Agriculture, Food, and Rural Development website [www.agric.gov.ab.ca](http://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 complement 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 AC Ultima												
	Dawson Creek				Fort St. John				B.C. Peace				
	2012 Yield		2007-2012		2012 Yield		2007-2012		2012	2007-2012			
	bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.		
<b>AC Ultima</b>	75	b	100	100	[6]	86	b	100	100	[6]	100	100	[12]
Brevis	86	a	115	109	[2]	92	a	107	106	[2]	111	108	[4]
Bumper	76	b	102	106	[4]	85	bc	98	104	[4]	100	105	[8]
Sunray	79	ab	106	103	[3]	93	a	107	109	[3]	106	106	[6]
Taza	79	ab	107	105	[3]	83	bc	96	101	[3]	101	103	[6]
Tyndal	75	b	100	105	[6]	82	c	94	106	[6]	97	105	[12]
LSD (P=.05) =	7.21				3.54								
CV value (%) =	6.12				2.71								

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

\* first year tested, very limited data available

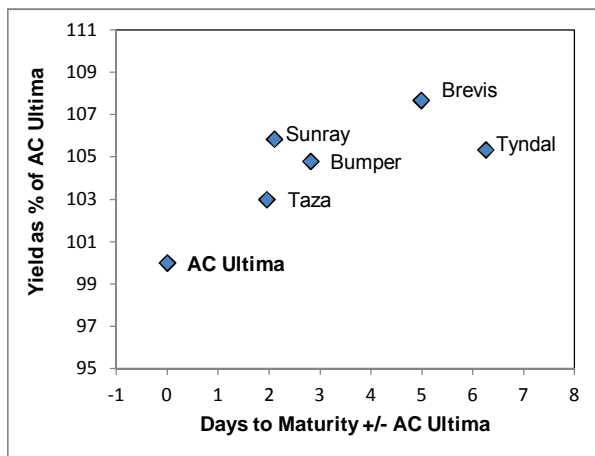
Δ denotes materials not registered, very limited data available

AC Ultima - check variety

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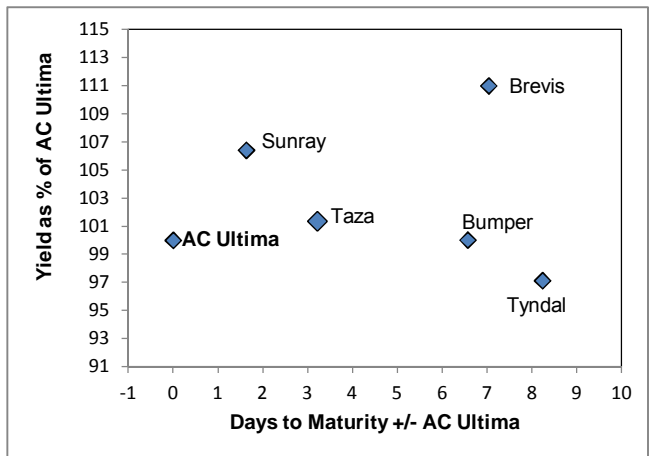
Variety	Spring Triticale											
	BC Peace Averages 2007-2012					Alberta Agdex 100/32						Distributor
	Maturity as days +/- check	Height (cm)	Bushel Weight (lbs/bus)	TKW (g / 1000)	Resistance to:							
					Lodging	Shatter	Sprouling	Loose Smut	Common Bunt	FHB		
<b>AC Ultima</b>	0.0	88	58	44	G	G	F	VG	VG	F	FP Genetics	
Brevis	5.0	96	61	44							Wagon Wheel Seed Corp.	
■ Bumper	2.8	81	60	44	VG	G	F	XX	VG	P	SeCan	
Sunray	2.1	90	58	43	VG	G	F	VG	VG	P	SeedNet	
■ Taza	2.0	98	58	45	G	G	F	XX	VG	VP	Solick Seeds	
■ Tyndal	6.3	90	58	43	G	G	P	VG	VG	P	SeCan	

Regional Variety Performance 2007-2012



Overall Average maturity for AC Ultima is 106 days

Regional Variety Performance 2012



Average maturity for AC Ultima is 94 days for 2012