B.C. GRAIN PRODUCERS ASSOCIATION

2012 FIELD CROP VARIETY PERFORMANCE

Funding provided by …

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B.C. PEACE RIVER GRAIN INDUSTRY DEVELOPMENT COUNCIL

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BC Grain Producers Association

2012 Field Crop Variety Performance

BC Peace River Region

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Front cover photo

Crop Tour 2012 was held July 17th, 2012 at the Fort St John research farm. On the right, people are looking at our new lentil trial. Even though moisture during the growing season was less than ideal, lentils grew well.

Front cover photo credit: Sato Nosho

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BC Grain Producers Association
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Introduction and Acknowledgements:

Funding for this report 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 (IAF).** The **YUKON AGRICULTURAL ASSOCIATION** is also providing support through **CAAP** and matching funds are provided by the **BC PEACE RIVER GRAIN INDUSTRY DEVELOPMENT COUNCIL (BCPRGIDC)** and **BC GRAIN PRODUCERS ASSOCIATION (BCGPA)**.

LOUIS DREYFUS (Dawson Creek office) should be recognized for their contribution via kernel protein analysis, **HADLAND SEED FARM LTD.** and **HILL FARMS LTD.** for bulk certified seed contributions, as well as several other anonymous local producers whom similarly offered contributions of their own certified seed. We thank all these individuals/organizations for their "in-kind" support towards making our field-testing and the production of this book possible. Various other private organizations make financial contributions for field days, etc. throughout the year which further help support efforts of the research department. Special thanks also extended to the site cooperators who continue to generously give their support to the program via use of the land, ***Vic Blanchette*** for the Fort St. John site, and ***School District #59*** for the use of the ***Hudson School Farm*** near Dawson Creek, B.C**.** A further word of thanks goes out to ***Dennis Meier*** of Dawson Creek who continuously and generously offers us space on his farm for all our field equipment.

We should also thank our field and lab team who once again helped to make this year yet another success. They are full-time technicians ***Satoru Nosho***, ***Brandi Smith***, and ***Cindy Locken*** whom all worked very hard and well together. Further thanks to ***Colleen Anderson*** for her help in her review of this report as well, and to all our part-time workers who were invaluable.

This document reports all tested materials grown during the 2012 growing season from performance trials placed at both the Dawson Creek and Fort St. John research farms. Materials not included in 2012 but which were previously tested, may now be viewed via earlier publications and are available for viewing or downloading at ***www.bcgrain.com***.

Cautionary Notes:

Multiple-year testing for any one variety is our goal, but often new materials have only been tested for one year, the current year usually. This can sometimes result in an unfair representation of the new single-year materials against statistically stronger multiple-year materials even though this report cautions readers about this possible effect. To try to resolve this issue, as of 2007 we now display the results in two graphs for each crop type, one with only the current year's results, and one with multiple-year results. In the multiple-year graphs, new one-year data is left out. Where **one-year results are shown**, be it in current-year graphs or in charts, **readers still must interpret and use such one-year data with considerable caution.** This is due the fact a variety may change position regarding both yield and maturity as additional results are obtained – the simple effect of compiling data from variable weather patterns over time. The more station years (defined as one test site at one location in one year) that can be used to produce an average, the more stable and reliable a result will be. Hence the association's steadfast efforts to procure multi-year data. By providing readers now with a separate "current year graph" many of the risks with looking at one-year data is still there but the chances of misrepresenting a new entry against its older neighbors is greatly reduced.

This book is produced without bias and is reported to the best of our ability from our own site data collection (except where noted as in any additional canola data). It should only be used as a guide, and where labels or agreements are available or supplied with your product, be it seed or other product, always follow label directions and or agreements.

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BC Grain Producers Association
- Reference & Terminology -

Station Years
The number of station years that the variety has been tested can be seen in the yield tables inside the square brackets [ ]. A station year is one test site at one location in one year. For example, a canola trial conducted at two locations over three years would have six station years, or [6]. We advise using caution if the data is based on *less than three station years in total*, or less than two years at both locations. This, of course, is a concern for canola where often a variety does not even stay in the seed market for more than two years.

Interpreting Yield Results
Crops in this book are managed using the same level of inputs as field sized recommendations would suggest. Small-plot research plots offer better consistency and can be better controlled, whereas wet areas and variable soil fertility affect field-scale crop production. However, small plots are subject to *edge effect*. "Edge effect" is caused by the spaces around the individual plots allowing extra sunlight to penetrate, boosting yields on these exposed outer plants, as compared to the average plant in a field scale situation that would be shadowed by its neighbors. **The important concept here is that these effects are *equal* for *all* small plots in a given trial, and we can therefore compare varieties in each trial, and look at resulting yields *relative to one another*.** Yields here are thus the result of *small plot production* and the same *level* of production is unlikely to be achieved on a large-scale basis. Unfortunately statistics, which are vital, cannot be used on "*percent of check variety*" data. Thus, we elected to show *bushels per acre* for this current year for the sole purpose of displaying statistical results for the current year. Treat *all* yields (*percent of check* and *bushels per acre*) as relative results. In all agronomic information the check variety name has been bolded to identify it.

Plant Breeders Rights
The Plant Breeders' Rights (PBR) gives plant breeders "copyright" protection of a variety for up to 18 years. Once a variety has been granted PBR, the breeder has control over the multiplication and sale of the seed. The breeder can take legal action for damages if someone infringes on their rights. Farmers may save some seed for seeding the next year on their own farm, but the sale of the crop as seed for planting purposes to others is not allowed. Many new transgenic herbicide-tolerant varieties have additional restrictions through '*technical use agreements*', so be aware of these also, as they often replace PBR status and can have strong consequences if ignored. Varieties protected by PBR can be identified by their PBR logo on a seed bag, seed tag or advertising material. This book tries to identify such PBR lines within "*Variety Description*" tables with a solid square box. However, ultimately it is the responsibility of the grower to know which line is PBR.

Certified Seed
The cost of *certified seed* is a small additional expense in relation to total crop production input costs, especially when changing to a different variety. Certified seed assures genetic purity, high germination rates and low percentage of foreign seed when compared to common seed. Certified seed can be purchased in bulk through authorized seed dealer networks (see "Seed Distributors" at the back of this report).

Seed Treatment
Choosing disease-resistant varieties and using certified seed is good, but treated seed goes a long way in the fight against plant diseases as well. The cost of a fungicide or a combined fungicide/insecticide seed treatment can be a small price to pay for the amount of protection and peace of mind they provide. The right seed treatment choice is important as some perform better than others for certain crop types. Treated seed must not contaminate grain delivered to an elevator or be used for feed.

- Cereal seed should be treated to control *true loose smut* and early season *seedling* diseases.
- Seed of rye, winter wheat and flax should be treated to control *seedling blight*. Winter wheat and rye also require protection against *smut*.
- Canola seed should be treated to control seed borne *blackleg*, *damping off* and early *flea beetle* attack.

Ergot
The fungal disease Ergot can attack the grain of all varieties of wheat, barley, rye, triticale and most common species of grass. Oat varieties are rarely attacked. Grain having 0.1% ergot is considered poisonous to livestock and should not be used as feed. The black rice-like *"seed mummies"* can be spotted prior to harvest in heads during a field inspection.

Seed Inoculation
Peas can make much of their nitrogen (N) requirement from the air through a partnership with soil bacteria called *Rhizobium*. The pea seed must be inoculated immediately before or during seeding with a proper strain of bacteria specific to peas. *Rhizobia* are living organisms so check the expiry date on the package and follow inoculant label directions carefully. Generally, it is a good idea prior to its use and even during use if possible, to try and reduce the inoculant's exposure to sunlight, open-air and warmth. Granular formulations placed with the seed have traditionally offered good results in Peace Region soils, but new inoculants are constantly entering the market place which may offer excellent inoculation as well. Survival of residual rhizobia organisms in our cool Peace Region soils is not consistently reliable; making use of inoculant with seed a good form of insurance. High soil nitrogen levels (over 60 kg N/ha) will reduce nodulation in the field regardless of inoculation. Cool, dry or excessively wet soils provide a harsh environment for proper inoculation. Under these conditions, a low level of nodulation formation will be the result. Granular inoculant placed with the seed at planting was used on all pea-trials seen in this report.

Seeding Rates

While the following *range* of seeding rates has given consistent yields for each crop in these trials, experience has shown that the top end of the range provides even more consistent results. **Risk of impaired emergence under stressful conditions can be reduced by increasing the seeding rate.** In addition, higher seeding rates can reduce the amount of secondary tillering, **produce earlier and more uniform maturity**, and reduce the amount of green kernels at harvest.

Tests conducted by the Beaverlodge Research Station several years ago throughout the Peace Region showed that by increasing the seeding rate of wheat from 80 to 120 lbs/ac (90 to 134 kg/ha), that the time to maturity was reduced by two days. Our own BCGPA trials involving seeding rates in barley initially showed that when increasing seeding rates to 2.25 to 2.5 bushels per acre for barley, it decreased maturity from 2 to even 4 days, which is significant by harvest. However, over the full five years of the project, results became less significant. Wheat is currently being tested by the BCGPA but no conclusions have been drawn as of yet.

Suggested Rates of Seeding

Wheat	90 - 120 lb/ac	100 - 135 kg/ha
CPS Wheat	130 - 180 lb/ac	145 - 200 kg/ha
Barley	75 - 100 lb/ac	85 - 110 kg/ha
Oats	70 - 90 lb/ac	85 - 100 kg/ha
Flax	26 - 40 lb/ac	30 - 35 kg/ha
Rye	65 - 85 lb/ac	73 - 95 kg/ha
Peas	150 - 300 lb/ac	165 - 330 kg/ha
Argentine Canola	5 - 8 lb/ac	6 - 9 kg/ha
Polish Canola	5.5 lb/ac	6 kg/ha

Due to large differences in seed sizes, seeding rates can vary considerably. Therefore, one should base the seeding rate on a *target number* of *viable seeds per square foot*. Using the 1000 kernel weights, adjusting for percent germination and allowing for seed decay (3%), calculate the number of pounds of seed required per acre.

Crop Type	Seeds / sq.ft	Avr. 1000 K wt
Wheat - CWRS	24 - 25	35 - 44 g
- CPS / CWES	24 - 25	44 - 52 g
Barley - 6 Row	24 - 25	35 - 43 g
- 2 Row	24 - 25	44 - 53 g
Oats - Hulled	24 - 25	38 - 47 g
Rye	24	30 - 35 g
Peas	8	200 - 345 g

Example (using peas):

Target **8** pea plants per square foot, the variety has a 1000 K wt. of **250** grams, and you estimate that between seed decay and percent germination of the seed lot that you will have, **90**% of the seeds will grow into healthy plants. Therefore…

$$\frac{\textbf{8}\ \text{plants/sq.ft}\ \textbf{x 250}\ \text{(g/1000 K)}}{\textbf{90}\ (\%)}\ \textbf{x 10 = 222}\ \text{lb/acre}$$

Answer: You would plant 222 lbs. of pea seed/acre.

BC Grain Producers Association - 2012 Growing Conditions -

The season started off with good growing conditions; a little cooler than normal or preferred and on the dry side for soil moisture, but sufficient moisture in the soil to start crops off healthy. Some emergence issues in small-seeded crops (canola, camelina and flax) arose in 2012, but this was more of a reflection of the heavy crop trash left over from last season's abundant crops than that of dry soils in 2012. Plentiful rains in late May and all through June after planting was completed were welcome events and traditionally a fairly typical pattern for the B.C. Peace Region. The rains gave producers and researchers alike high expectations for high yields and high quality grains for harvest, however, significant rainfall events all but stopped after July arrived and remained off right through until harvest was completed mid-September. All harvest was thus finished by September 14th representing a full month ahead of schedule, with the only exception being some flax at the Fort St. John site. The flax in Fort St. John had responded to what little additional rain that site received in August by attempting to re-flower and thus cause some re-growth issues to deal with at the Fort St. John site by harvest.

The result of the drought in July through to the end of harvest meant the typical issues with a drought were brought on; very early harvest, compressed maturity spread between lines being tested, and less than full potentials for resulting yields. What was really surprising was that the moisture in June had apparently been at sufficient levels so as not to cause flooding but which were sufficient enough to sustain soil moisture levels well into the drought stricken period post July 1st, 2012. A testimony to this was the better than expected cereal and pulse yields. Quality was fairly good as well - in cereals at least – but the longer-season crops (that being the oilseed crops; argentine canola and flax) were not quite as fortunate. Argentine canola and flax showed "acceptable" yield levels, but were a lot lower than what could have been had some significant rainfalls occurred in July and August.

Interpreting Data

The yield for each variety is reported on a regional basis for the Dawson Creek and Fort St. John areas as well as an average for the entire B.C. Peace. Also, the number of years each variety has been tested is given for each of the two regions. In the following examples, the number of years is indicated in **[ ]** right after the yield. "Station years" are the total number of times a variety has been tested in these trials.

Two Row Barley													**Yield as % of AC Metcalfe**
			Dawson Creek			Fort St.John			B.C. Peace				
			2012	2007-2012		2012	2007-2012		2012	2007-2012			
Variety		Type	Yield	Avg.	Stn.Yrs.	Yield	Avg.	Stn.Yrs.	Yield	Avg.	Stn.Yrs.		
XENA	2-row	feed	115	113	[3]	125	105	[5]	120	109	[8]		

Number of **years** the variety was tested at **each station**

Number of **times** in total the variety was tested in the **BC Peace**.

note: the above example is a dramatization

Statistical Values Entries into the Regional trials are replicated (or repeated) four times (three times minimum) at both locations. Replication is used to derive an overall average per entry per trial, and allow for statistical analysis.

Coefficient of Variance (CV value) , given as a percentage, it tells us how statistically sound or reliable a given data set is. Generally, any value less than or equal to 15% is considered to be acceptable and indicates "sound" data. This means if you were to repeat the trial under similar conditions, you would get similar results, or at least we are 95% confident that we would. We tend to be a little more lenient on this 15% for such things as disease or insect data, as these are normally highly variable traits due to the nature of the beast, but we do not like to see yield data from a single trial with a high CV value. Anything less than 10% is considered excellent.

Least Significant Difference test (LSD value) , are those little letters behind the *data means* . Basically, if two or more *data means* (or averages) have the same letter behind their number, they are NOT significantly different from one another according to statistics. Therefore, means or averages with the same letter should not be viewed as one being "superior" or "inferior" from the other or others of the same letter. LSD takes variability into account, and compares "apples" to "apples".

Example:

	Dawson Creek		
	2012	**2007-2012**	
Variety	**Yield**	**Avg.**	**Stn.Yrs.**
Super X	105 ab	102	[3]
Superdooper Y	107 a	105	[3]
So-So 101	100 b	98	[2]
Old Goody	95 c	97	[6]

In this example, some people might think variety "*Superdooper Y*" is superior to variety " *Super X* " and "*So-So 101* ". This is not true according, to statistics, "*Superdooper Y*" is superior to variety "*So-So 101* ", but is equivalent to " *Super X* " in yield because both "*Superdooper* " and "*Super X* " have the letters "*a* " with them. In this example, " *Super X* " is not superior (or significantly different), from variety "*So-So 101* " either, as both have a " *b* " behind their means. Also, " *Superdooper Y* ", "*Super X* ", and "*So-So 101* " are *superior to* , or a better term is *significantly different* from " *Old Goody* ". Note, in this report, we only have LSD values for this current year's data, and thus you should still take notice of the long term averages. Note that preferably data should have six station years, (usually meaning 3 years at each site) but that for **any varieties with less than three station years of data, you must compare data with caution.**

Fertilizer Rates Used In 2012

Fort St. John, B.C. Legal Description: SW19 Tp84 R18 W6

Crop	Fertilizer Applied	Pro. kg/ha	Placement	lbs actual/ac Recom. vs. Applied	Enviro-Test Labs N	P_20_5	K_2O	S
Canola	27-0-0-12	228	banded	*Recommended =	60	35	20	25
	6-26-30	76	banded	Actually applied =	61.7	29.2	20.3	24.4
	11-52-0	25	in-furrow					
Flax	27-0-0-12	187	banded	*Recommended =	40	25	15	12
	6-26-30	76	banded	Actually applied =	51.8	29.2	20.3	0.0
	11-52-0	25	in-furrow					
Cereals	46-0-0	150	banded	*Recommended =	65	25	15	12
	6-26-30	76	banded	Actually applied =	68.3	29.2	20.3	0
	11-52-0	25	in-furrow					
Peas	20.5-0-0-24	65	banded	*Recommended =	15	27	15	12
	6-26-30	93	banded	Actually applied =	19.3	33.2	24.9	13.9
	11-52-0	25	in-furrow					

Dawson Creek, B.C. Legal Description: SW20 Tp78 R14 W6

Crop	Fertilizer Applied	Pro. kg/ha	Placement	lbs actual/ac Recom. vs. Applied	Enviro-Test Labs N	P_20_5	K_2O	S
Canola	27-0-0-12	291	banded	*Recommended =	75	30	50	30
	6-26-30	55	banded	Actually applied =	76.3	26.7	14.7	31.2
	11-52-0	0	in-furrow					
Flax	27-0-0-12	253	banded	*Recommended =	65	25	55	15
	6-26-30	93	banded	Actually applied =	68.6	33.2	24.9	27.1
	11-52-0	25	in-furrow					
Wheat & Barley	46-0-0	150	banded	*Recommended =	60	25	25	5
	6-26-30	76	banded	Actually applied =	68.3	29.3	20.3	0
	11-52-0	25	in-furrow					
Malt Barley & Oats	46-0-0	127	banded	*Recommended =	35	22	15	10
	6-26-30	50	banded	Actually applied =	44.4	25.5	13.4	0
	11-52-0	30	in-furrow					
Peas	20-0-0-24	65	banded	*Recommended =	20	25	80	15
	6-26-30	93	banded	Actually applied =	19.3	33.2	24.9	13.9
	11-52-0	25	in-furrow					

*Recommended = recommendations given by ALS Laboratory Group of Saskatoon, SK., calculated from soil samples pulled earlier in the spring of the same calendar year as planted.

Pesticide Applications

Fort St. John, B.C. — **Legal Description: SW19 Tp84 R18 W6**

Crop	Date Applied	Product Used	Product Rate
Canola	14-Jun-12	Muster (ethametsulfuron methyl)	12 g/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		Poast Ultra (sethoxydim)	200 ml/ac
		Merge	400 ml/ac
Canola CPT (Herb. Systems)	14-Jun-12	WeatherMax (glyphosate) = RR blocks only	400 ml/ac
		Liberty150SN (glufosinate-ammonium)=LL only	1.35 L/ac
		Solo (imazamox) = CL blocks only	11.7 g/ac
Field Peas	11-Jun-12	Sencor (metribuzin) 75%DF	77g/ac
		MCPA Sodium	190ml/ac
	14-Jun-12	Poast Ultra + Merge	190ml /ac + 1%
Flax	11-Jun-12	Buctril - M (bromoynil + MCPA)	400 ml/ac
	14-Jun-12	Poast Ultra + Merge	190ml /ac + 1%
Wheat, Barley, Oat	11-Jun-12	Buctril - M (bromoynil + MCPA)	400 ml/ac

Dawson Creek, B.C. — **Legal Description: SW20 Tp78 R14 W6**

Crop	Date Applied	Product Used	Product Rate
Canola (napus & rapa)	13-Jun-12	Muster (ethametsulfuron methyl)	12 g/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		Poast Ultra (sethoxydim)	200 ml/ac
		Merge	400 ml/ac
Canola CPT (Herb. Systems)	13-Jun-12	WeatherMax (glyphosate) = RR blocks only	400 ml/ac
		Liberty150SN (glufosinate-ammonium)=LL only	1.35 L/ac
		Solo (imazamox) = CL blocks only	11.7 g/ac
Field Peas	13-Jun-12	Sencor (metribuzin) 75%DF	77 g/ac
		MCPA Sodium	190 ml/ac
	13-Jun-12	Poast Ultra + Merge	190ml /ac + 1%
Flax	13-Jun-12	Buctril-M (bromoynil + MCPA)	400 ml/ac
	13-Jun-12	Poast Ultra + Merge	190ml /ac + 1%
Malt Barley	9-Jun-12	Refine SG	12 g/ac
Oat		Ag Surf	2L/1000L H2O
		MCPA Ester	228ml/ac
Wheat, Barley, Trit	9-Jun-12	Refine SG	12 g/ac
		Ag Surf	2L/1000L H2O
		MCPA Ester	228ml/ac

All seed was treated with seed treatment: canola with Helix Xtra®; cereal & flax with Raxil FL®; and pea seed with Apron Maxx RTA.

Planting and Harvest Information

Loc.	Crop	Seeding rate lbs/ac	Seeding rate kg/ha	Date Planted	Soil Temp (C^o) @ plant	Seeding Depth	Harvest Date	Harvesting Method
FSJ	**Napus Canola**	8	8.9	14-May-12	8	0.75 - 1 inch	10-Sep-12	direct
	Flax	40	45	10-May-12	5	0.75 - 1 inch	21-Sep-12	desiccate/direct
	Barley	77	86	17-May-12	4	1 - 1.25 inch	28-Aug-12	direct
	CWRS Wheat	90	101	17-May-12	4	1 - 1.25 inch	4-Sep-12	direct
	CPS/CWES	90	101	17-May-12	4	1 - 1.25 inch	4-Sep-12	direct
	Oats	81	90	17-May-12	4	1 - 1.25 inch	28-Aug-12	direct
	Triticale	117	131	17-May-12	4	1 - 1.25 inch	4-Sep-12	direct
	Peas	149	167	8-May-12	4	0.75 - 1 inch	20-Aug-12	direct
DC	**Napus Canola**	8	8.9	13-May-12	5	1.25-1.5 inch	8-Sep-12	direct
	Flax	40	45	9-May-12	3	1.25-1.5 inch	11-Sep-12	desiccate/direct
	Barley(Malt)	77	86	19-May-12	3	0.75 - 1 inch	30-Aug-12	direct
	CWRS Wheat	90	101	16-May-12	6	1 - 1.5 inch	3-Sep-12	direct
	CPS/CWES	90	101	16-May-12	6	1 - 1.5 inch	3-Sep-12	direct
	Oats	81	90	19-May-12	4	0.75 - 1 inch	30-Aug-12	direct
	Triticale	117	131	16-May-12	6	1 - 1.5 inch	3-Sep-12	direct
	Peas	149	167	8-May-12	5	1-1.25 inch	20-Aug-12	direct

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		
	2012 Yield			2007 - 2012		2012 Yield			2007 - 2012		2012	2007-2012	
Variety	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]
Katepwa	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							

Katepwa - check variety

* 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**
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

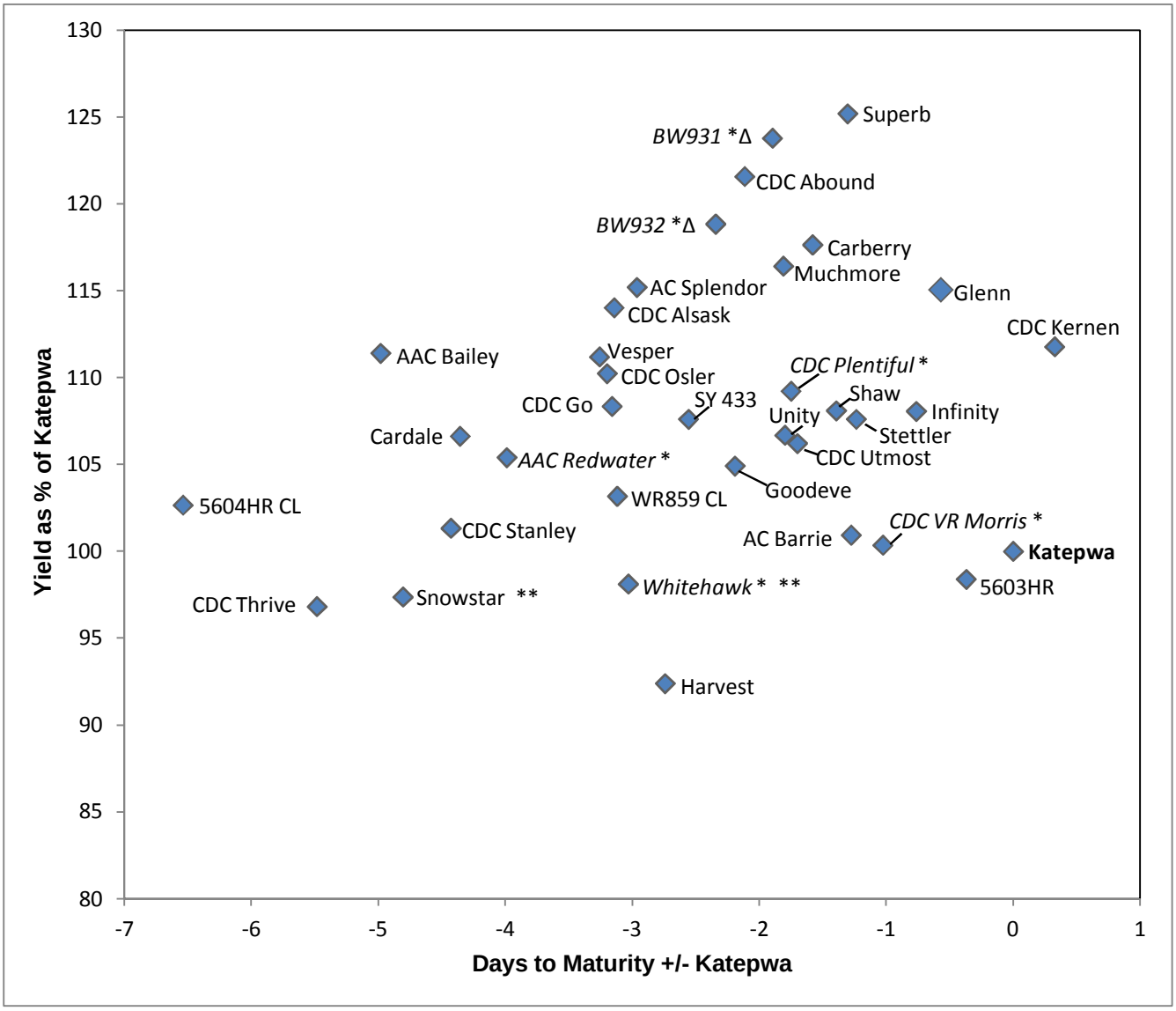
Variety	B.C. Peace Averages 2007 - 2012: Days to Maturity +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 Resistance to: Lodging	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB	Distributor
■ 5603HR	0.7	77	63	1	[10]	G	VG	G	G	P	G	F	Viterra
■ 5604HR CL	-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
** 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
■ Protected by Plant Breeders' Rights

VG = very good, G = good, F = fair, P = Poor, VP = very poor
XX = insufficient data
Average protein for **Katepwa** is **13.3 %**
Overall average maturity for **Katepwa** is **104 days**

Katepwa - check variety

CWRS Wheat — Regional Variety Performance — 2012



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

* first year tested, very limited data available

** CWHWS Canadian Western Hard White Spring Wheat

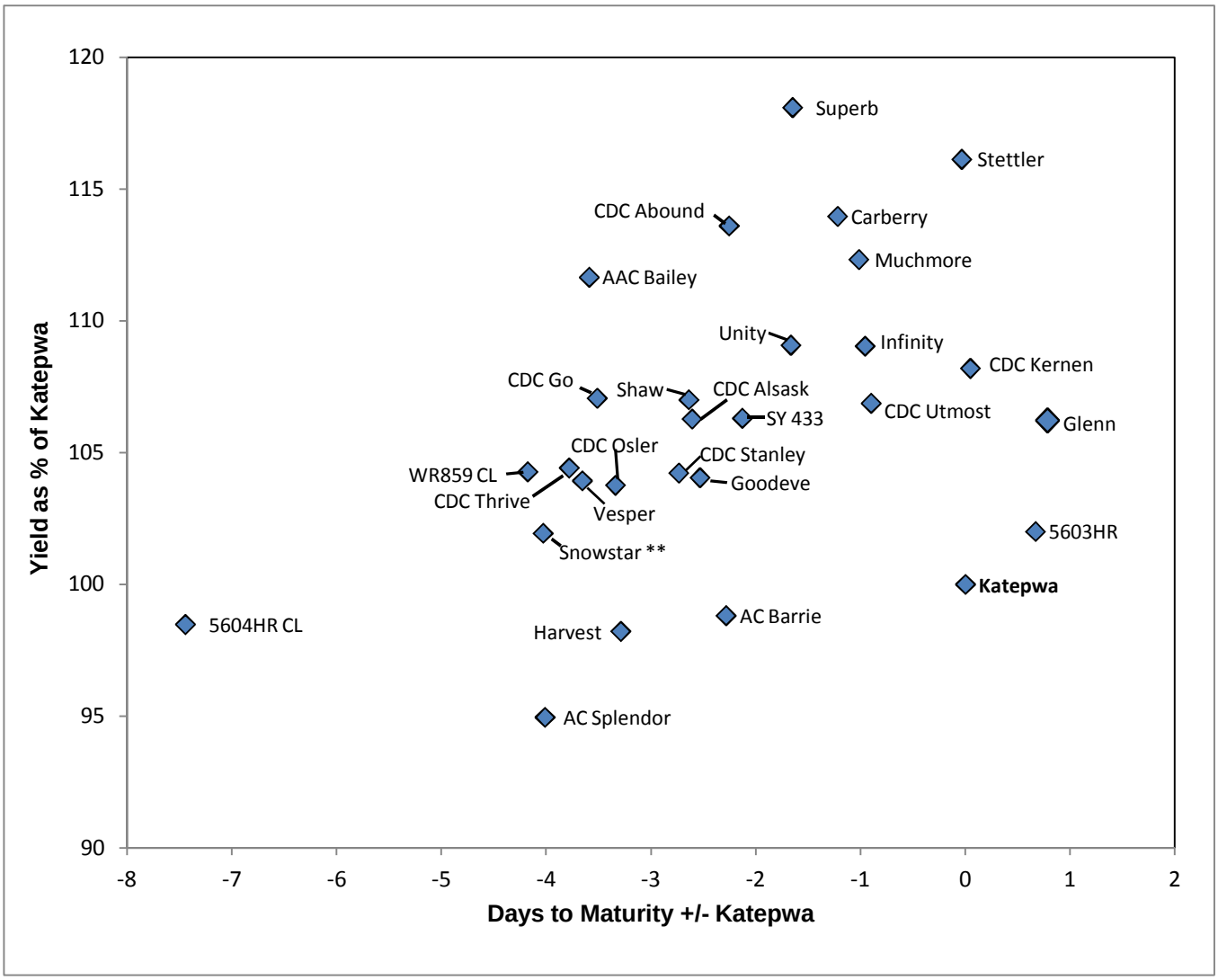
Katepwa - check variety

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

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 2012 Yield bus / acre		Dawson Creek 2012 Yield % of check	Dawson Creek 2007 - 2012 Avg. (%)	Dawson Creek 2007 - 2012 Stn. Yrs.	Fort St. John 2012 Yield bus / acre		Fort St. John 2012 Yield % of check	Fort St. John 2007 - 2012 Avg. (%)	Fort St. John 2007 - 2012 Stn. Yrs.	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	B.C. Peace 2007-2012 Stn. Yrs.
5700PR	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]
Enchant *	CPS-red	--	--	--	0	[0]	57	c	91	91	[1]	91	91	[1]
HY1312 *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]
Pasteur *	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 avaliable

Δ denotes materials not registered, very limited data available

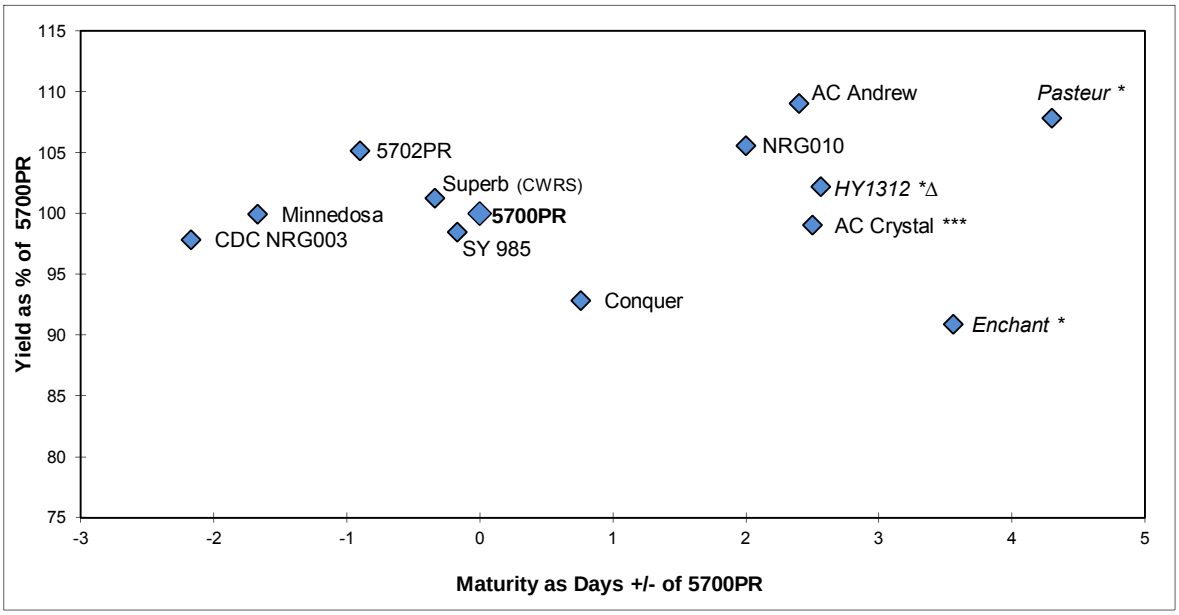
5700PR - check variety

*** 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 2007-2012: Maturity in days +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 Resistance to: Lodging	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB	Distributor
■ **5700PR**	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
■ *Enchant* *	CPS-red	3.6	78	65	1	[1]								FP Genetics
■ *HY1312** 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
Pasteur *	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

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 %**

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

XX = insufficient data

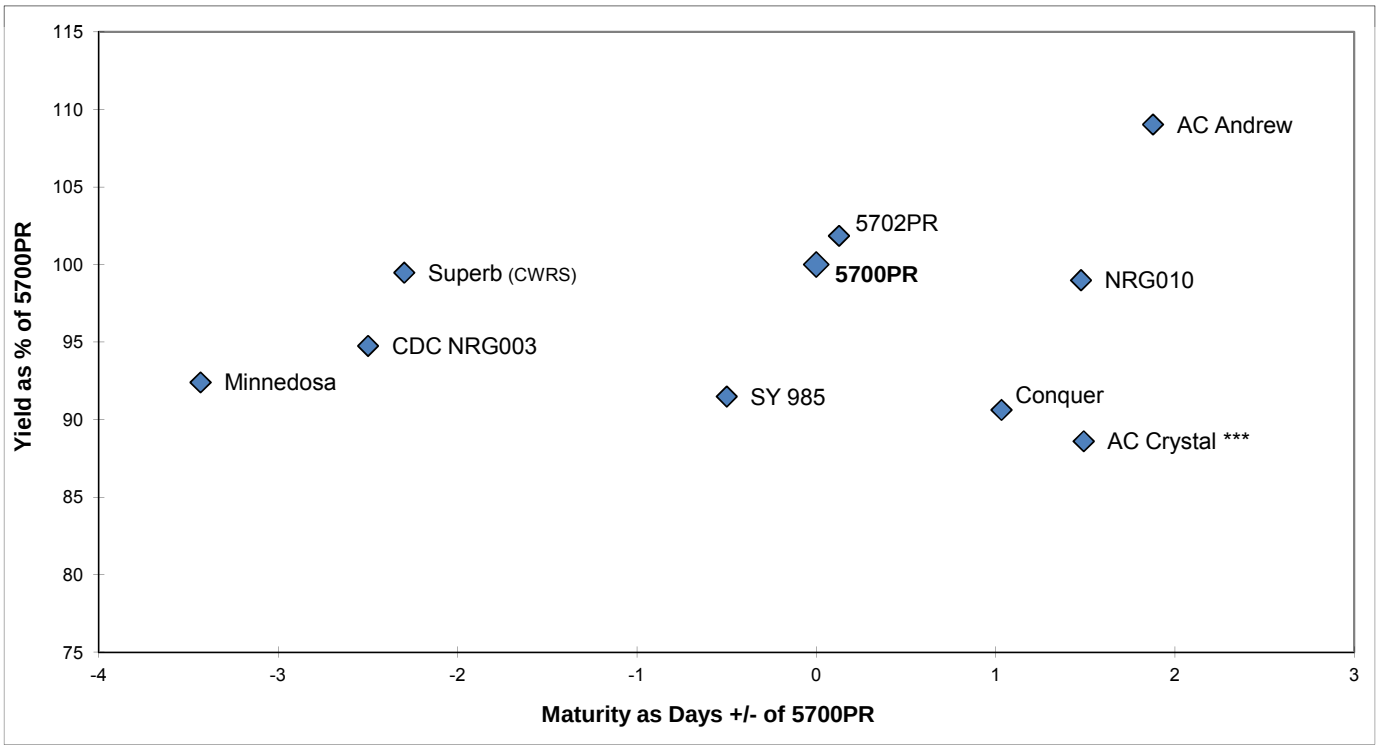
"blanked *Tolerance* data" = no data available yet (too new)

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

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

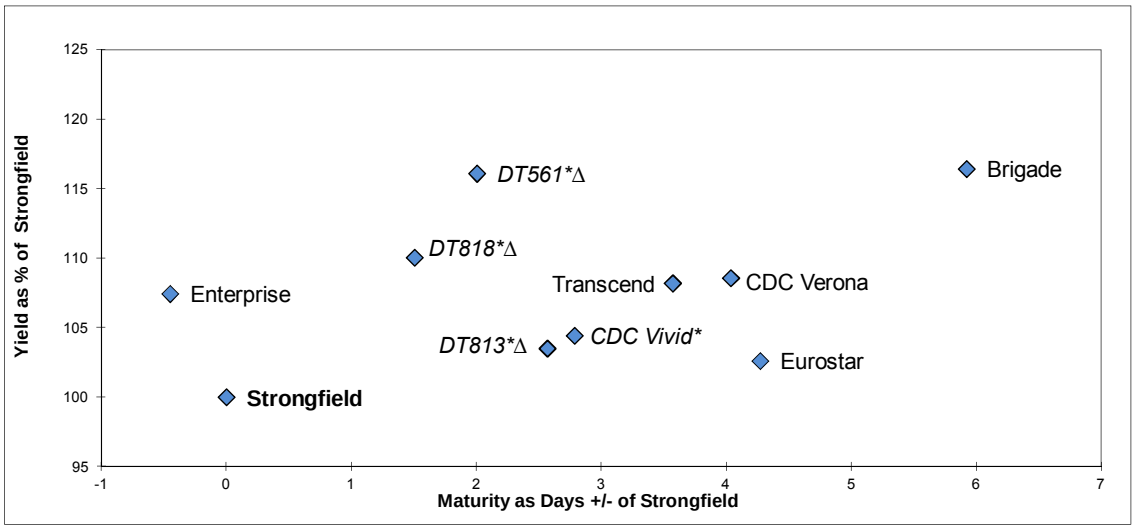
		Dawson Creek						Fort St. John						B.C. Peace		
		2012 Yield			2009 - 2012			2012 Yield			2009 - 2012			2012	2009 - 2012	
Variety	Type	bus / acre		% of check	Avg. (%)	Stn. Yrs.		bus / acre		% of check	Avg. (%)	Stn. Yrs.		Avg. (%)	Avg. (%)	Stn. Yrs.
Brigade	CWAD	48	a	136	110	[4]		57	ab	97	103	[4]		116	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]
Strongfield	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 avaliable

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: Maturity in days +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 Resistance to: Lodging	Shatter	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB	Distributor
■ 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

Strongfield - check variety

■ Protected by Plant Breeders' Rights

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

XX = insufficient data

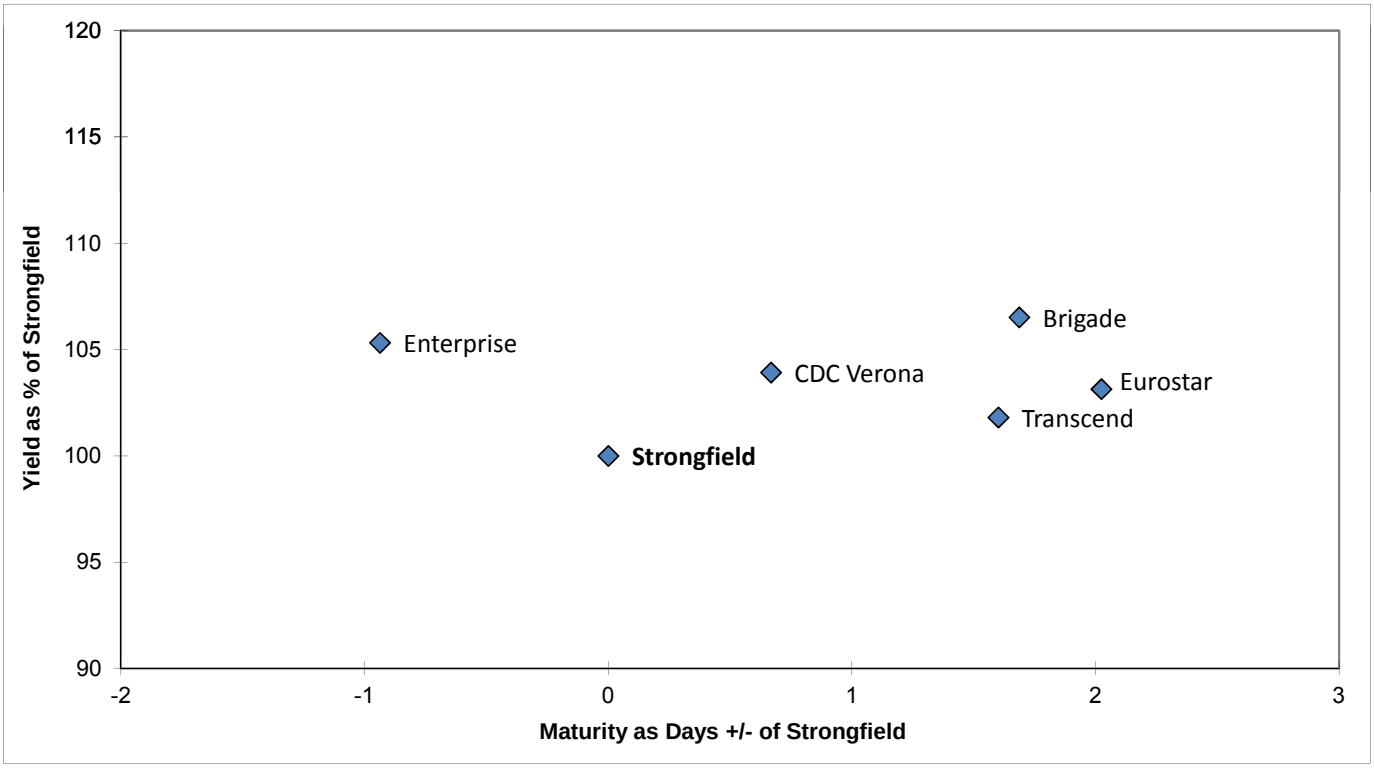
Δ denotes materials not registered, very limited data available

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 2012 Yield bus / acre		Dawson Creek 2012 Yield % of check	Dawson Creek 2007-2012 Avg. (%)	Dawson Creek 2007-2012 Stn. Yrs.	Fort St. John 2012 Yield bus / acre		Fort St. John 2012 Yield % of check	Fort St. John 2007-2012 Avg. (%)	Fort St. John 2007-2012 Stn. Yrs.	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	B.C. Peace 2007-2012 Stn. Yrs.
AC Lacombe	Feed	89	a	111	105	[5]	91	a	106	103	[6]	109	104	[11]
AC Metcalfe	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 2012 Yield bus / acre		Dawson Creek 2012 Yield % of check	Dawson Creek 2007-2012 Avg. (%)	Dawson Creek 2007-2012 Stn. Yrs.	Fort St. John 2012 Yield bus / acre		Fort St. John 2012 Yield % of check	Fort St. John 2007-2012 Avg. (%)	Fort St. John 2007-2012 Stn. Yrs.	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	B.C. Peace 2007-2012 Stn. Yrs.
AAC Synergy *	Malt	82	ab	101	101	[1]	86	d-g	104	104	[1]	103	103	[2]
AC Metcalfe	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)

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

* 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

Feed Barley — Variety Descriptions

Variety	Type	B.C. Peace Averages 2007-2012: Days to Maturity +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 info, Resistance to: Lodging	Loose Smut	False Smut	Root Rot	Scald	FHB	Distributor
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 2007-2012: Days to Maturity +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 info, Resistance to: Lodging	Loose Smut	False Smut	Root Rot	Scald	FHB	Distributor
■ *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

¶ denotes hulless seed types

■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available

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

XX = insufficient data

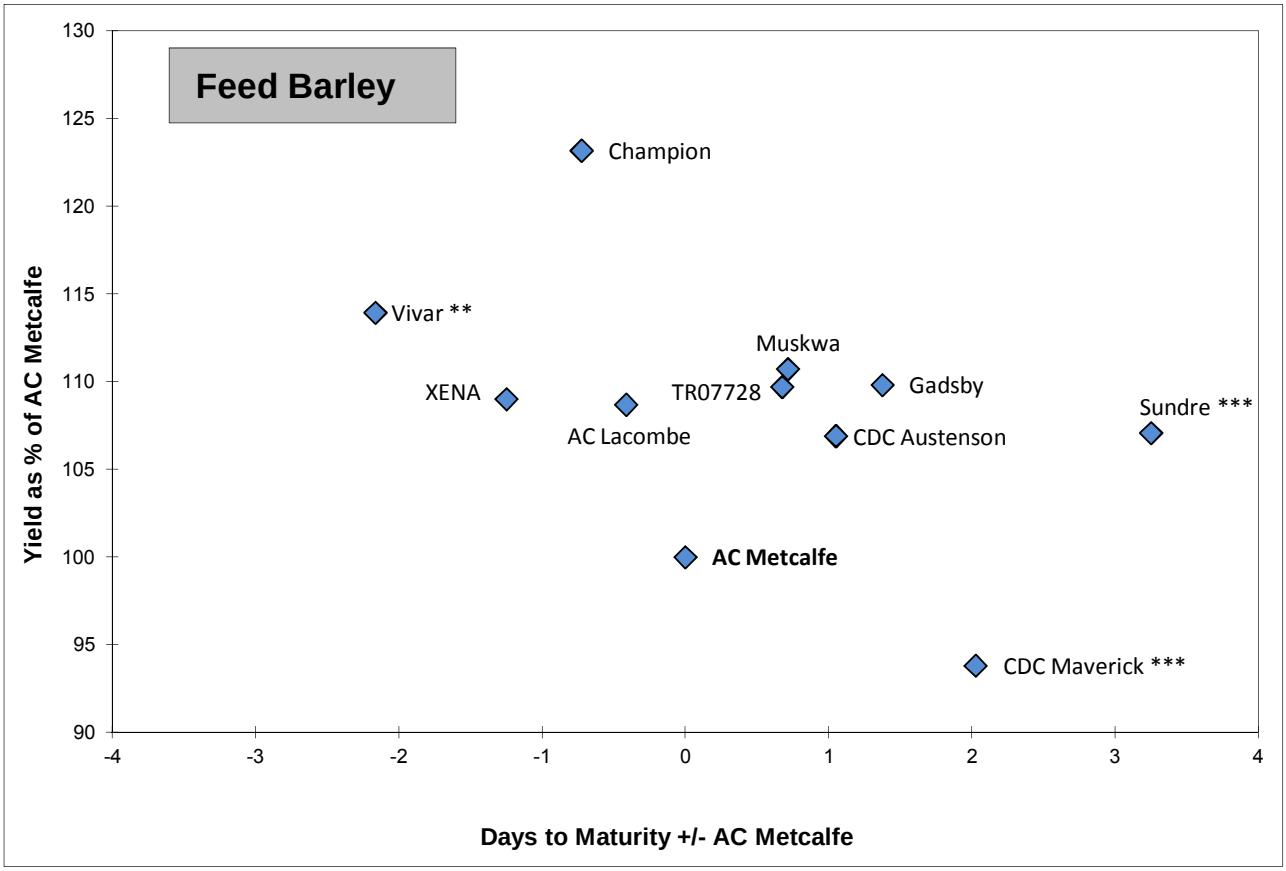
Overall average maturity for **AC Metcalfe** is **92** days

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

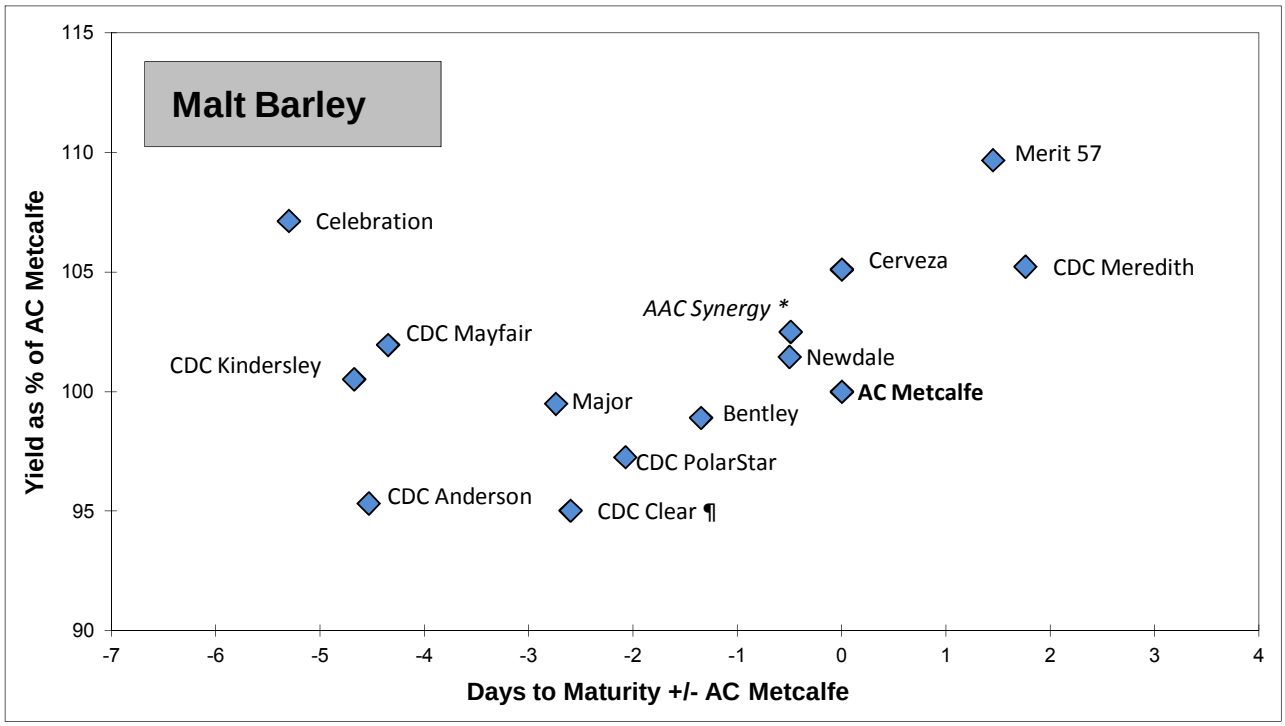
Numbers in square brackets [ ] is number of station years collected for protein

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

AC Metcalfe - check variety

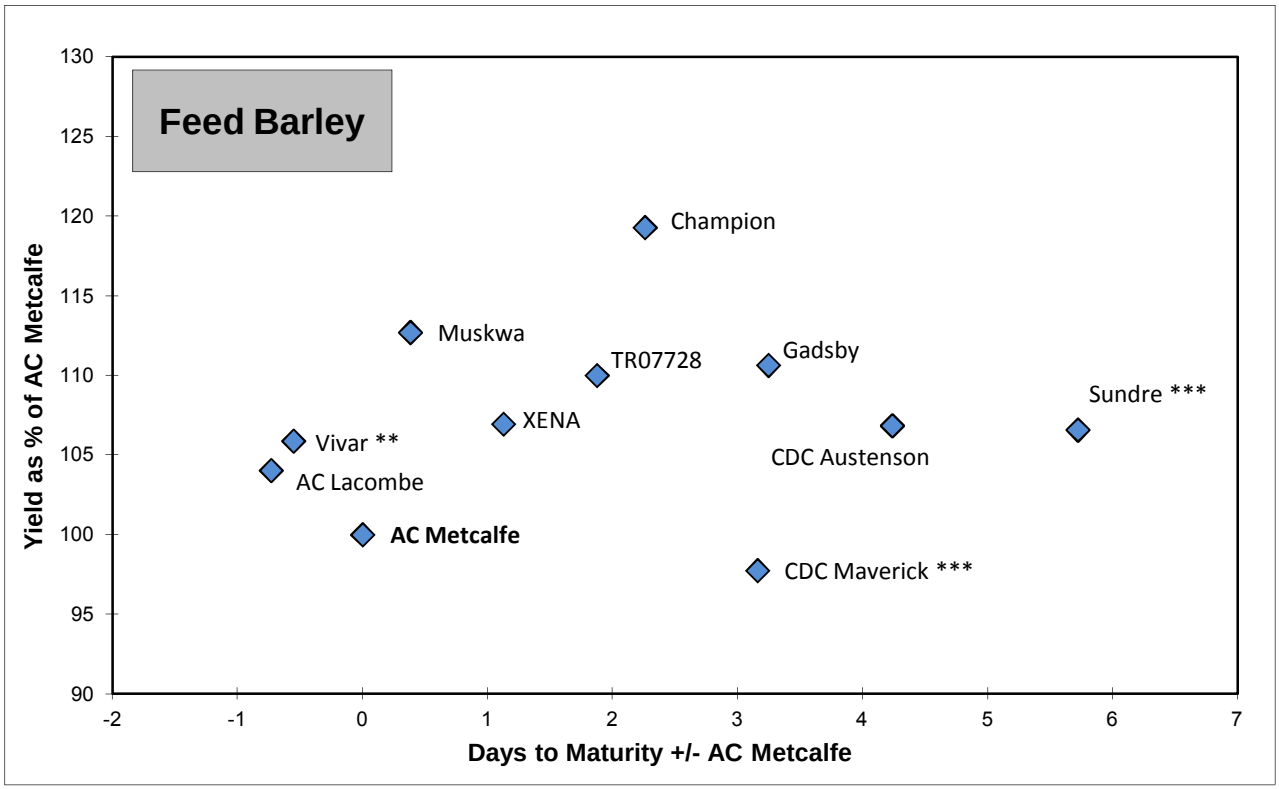


Average maturity for AC Metacalfe in **2012** is **87** days (both graphs)

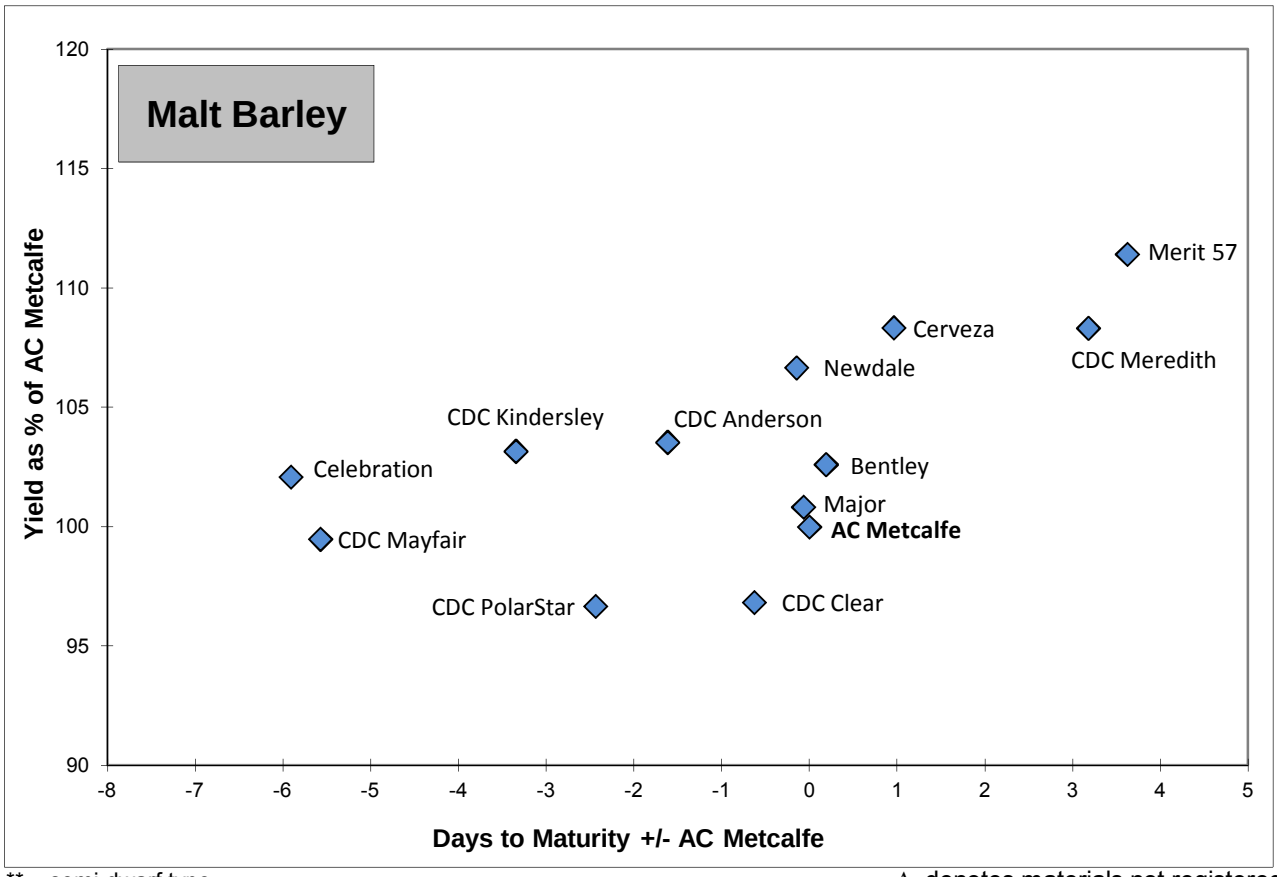


* first year tested materials
** semi-dwarf type
*** smooth-awned type

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



Overall average maturity for AC Metacalfe 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

		Dawson Creek				Fort St. John				B.C. Peace		
		2012 Yield		2007-2012		2012 Yield		2007-2012		2012	2007-2012	
Variety	Colour	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]
CDC Dancer	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]
Souris *	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: Maturity as days +/- check	Height cm	Bushel Weight lbs/bu	Alberta Agdex 100/32 info Tolerance to: Lodging	Smuts	Distributor
AC Mustang	Feed/forage	4.6	90	43	G	F	Mastin Seeds
■ CDC Big Brown	Milling	5.1	87	43	G	VG	SeCan
■ **CDC Dancer**	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
■ *Souris* *	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

■ Protected by Plant Breeders' Rights

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

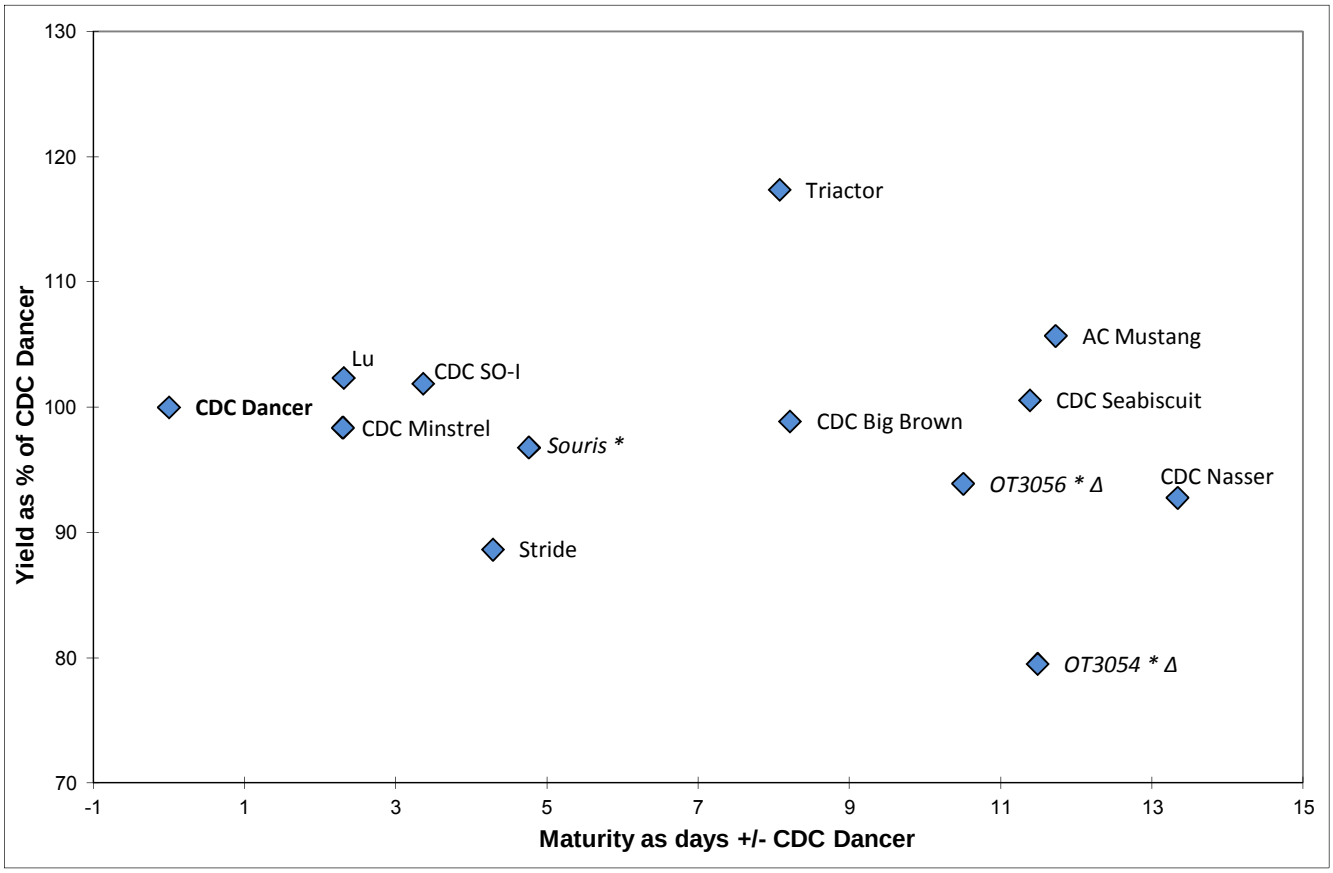
VG = very good, G = good, F = fair, P = poor, VP = very poor

XX = insufficient data

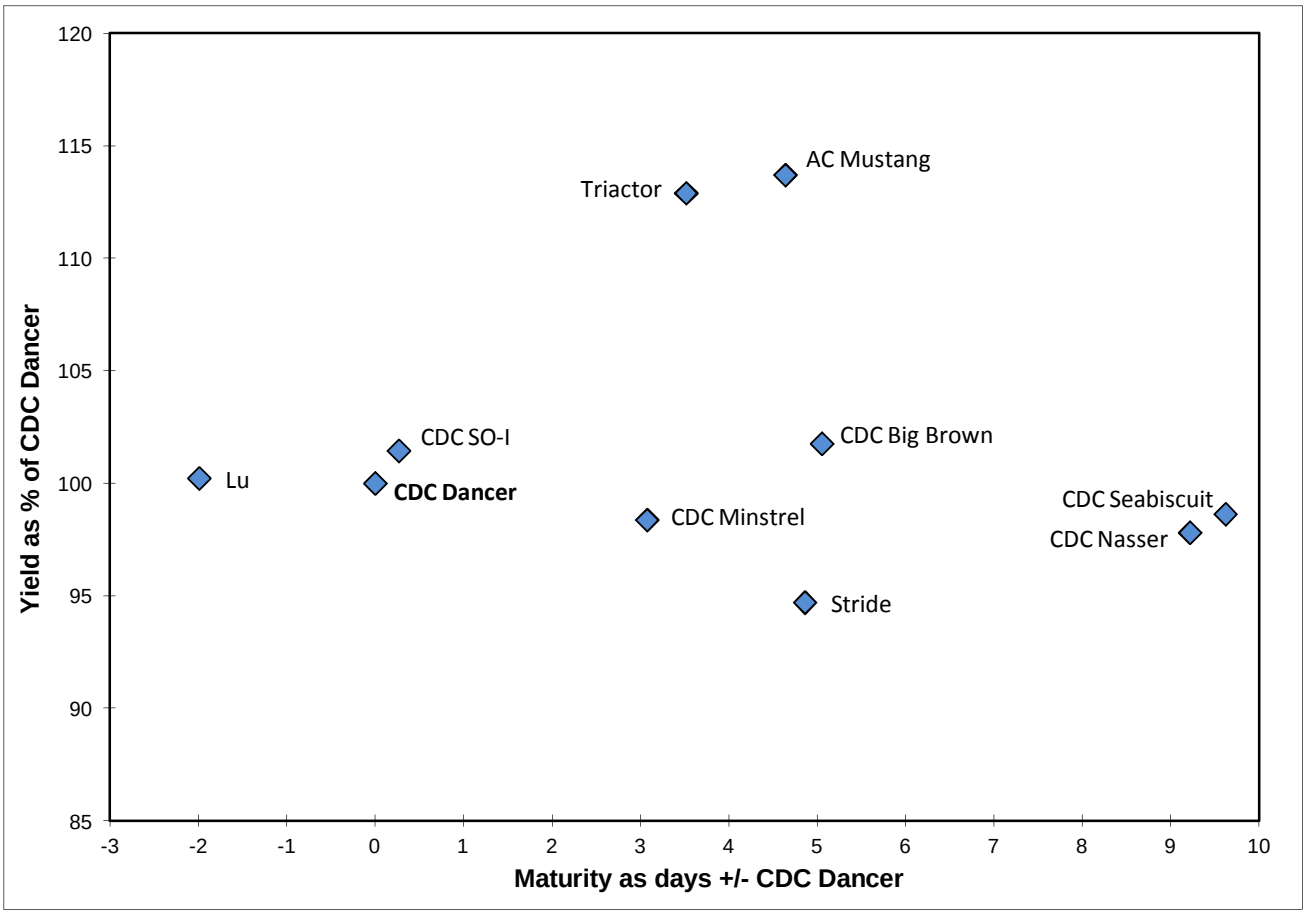
* first year tested, very limited data available

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[1]. Many years of comparing yields of oats with barley have shown oats to be superior in the Black and Grey Wooded soil zones[1]. 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[1]. Oats have about 22-26 percent hull whereas barley averages about 12-14 per cent hull on a weight basis[1]. 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[1]. 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[2]. 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[3]. 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 cereal*). 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 consistant 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.

Spring Triticale — Yield as % of AC Ultima

Variety	Dawson Creek 2012 Yield bus / acre		Dawson Creek 2012 Yield % of check	Dawson Creek 2007-2012 Avg. (%)	Dawson Creek 2007-2012 Stn. Yrs.	Fort St. John 2012 Yield bus / acre		Fort St. John 2012 Yield % of check	Fort St. John 2007-2012 Avg. (%)	Fort St. John 2007-2012 Stn. Yrs.	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	B.C. Peace 2007-2012 Stn. Yrs.
AC Ultima	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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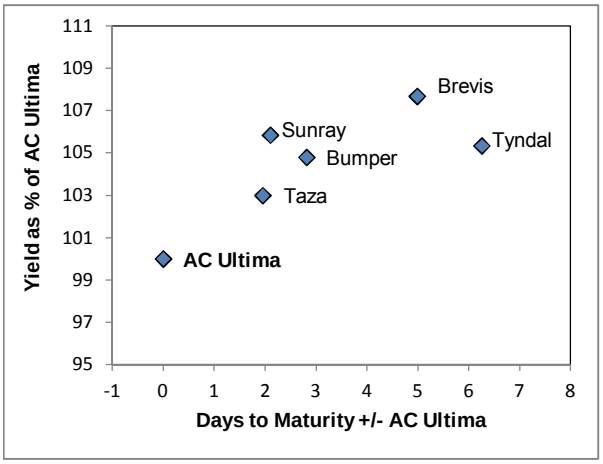
Spring Triticale — Variety Descriptions

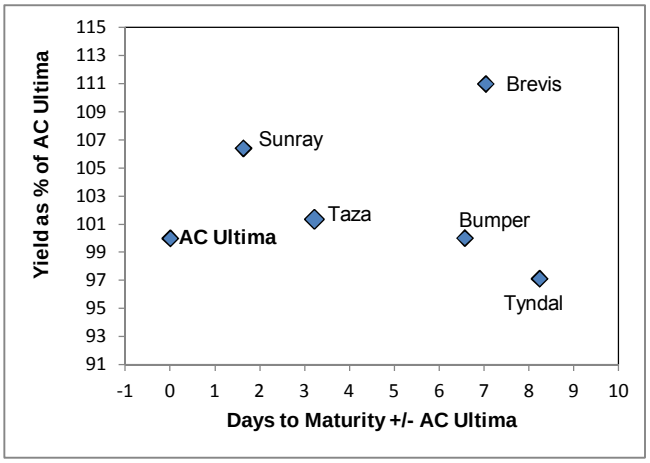
Variety	BC Peace Averages 2007-2012: Maturity as days +/- check	Height (cm)	Bushel Weight (lbs/bus)	TKW (g / 1000)	Alberta Agdex 100/32 Resistance to: Lodging	Shatter	Sprouting	Loose Smut	Common Bunt	FHB	Distributor
AC Ultima	0.0	88	58	44	G	G	F	VG	VG	F	FP Genetics
Brevis	5.0	96	61	44							Wagon Wheel 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

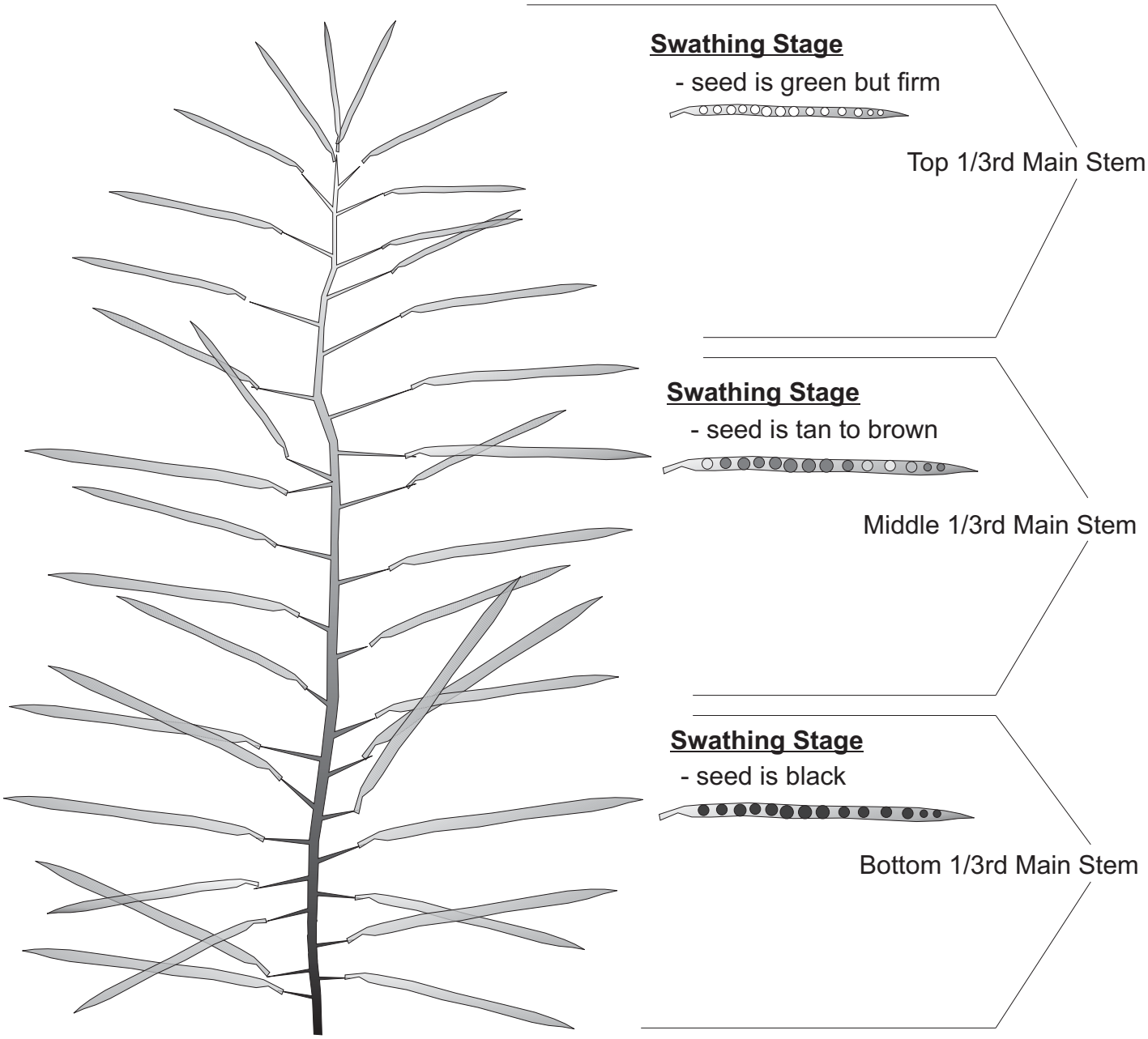


Average maturity for AC Ultima is **94 days** for **2012**

Definition of Canola Maturity Used In This Report

Please check with the *Canola Council of Canada* for complete definition of “swathing maturity”. It is this “ready for swathing” time period that is used here to describe “maturity”.

It is very important to split pods and check the seed inside as outer pod colour does not reflect the true maturity of the plant. Often the outer pod colour can still be green while seed inside has turned to black. Other times the pod colour could be pale yellow while green seed is within. One field inspection is not enough, one must visit a particular field several times to catch a progression in maturity so as not to miss the safe swathing period. Cool wet weather periods can slow or even temporarily halt the progression of maturity, especially prior to swathing. Several portions of the same field per variety must be checked as well because often minor field variations can change maturity across a given field.



2012 Crop Pest Status in the BC Peace Region

Clubroot of canola: 2012 saw an expansion of the number of infected fields in Alberta, confirmation of the disease spreading to Saskatchewan, and detection of clubroot DNA (but not plant symptoms) in Manitoba. So far, it has NOT been found in the BC Peace. Although progress is being made in breeding varieties with some resistance to the disease, it is still far better to not have the fungus in the soil in the region. Clubroot is a canola disease that could seriously reduce the ability of BC Peace region farms to grow the crop. The distribution of infested fields continues to expand from the Edmonton area. The map of county status as of Nov 2012 can be seen at the following link http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/prm14255 Club root could easily be transferred from there to here with a little bit of soil. It may be a good idea for you as a landowner having energy or construction equipment visiting (perhaps for pipeline work), to get an agreement that the equipment be cleaned prior to it coming on to your property. Check out the problem on the Internet:
Alberta Clubroot Management Plan http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/agdex11519
Also see links at the bottom of that document, to: a disease fact sheet, Best Management Practices and an equipment cleaning protocol developed to disinfect machinery and equipment to prevent the spread of clubroot.

Aster yellows: canola plants with misshapen "bladder" pods and reduced seeds, showed up in the BC Peace this year. The disease is spread by leafhoppers, which may have survived a milder winter or been blown in to the area by spring winds. Something to consider in future. http://www.canolawatch.org/2012/11/07/aster-yellows-qa/

Hawkweeds: another big threat (also not a bug) to BC Peace agriculture is a group of weed species that until recently were absent, and will still not often be seen. They have flowers and seeds like dandelions, but are also perennial and displace other vegetation by creeping along the soil surface. Orange hawkweed is most distinctive, but there are also yellow species that at a glance may look like relatively harmless Hawksbeard. See http://www.bcinvasives.ca/images/stories/documents/tips/Invasive_Hawkweeds_TIPS.pdf or ask for a poster at the Agriculture office. The NorthEast Invasive Plant Committee with your help is working hard to keep these and other species out of the region.

It is worth knowing the pest players and risks. Further information is available from agriculture service suppliers (id. booklets), and on websites such as Canola Council's "**canola watch**" http://www.canolawatch.org/#sign-up-inner . For brief discussions of five insect pest species that have caused significant damage in the past: see "Pest" article in this spot in the 2008 BCGPA Variety Trials book, or the web version at http://www.bcgrain.com/pdf/2008/2008%20Book%20-%20canola.pdf page 22.

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BC Ministry of Agriculture Dawson Creek 250 784 2559

Argentine Canola

Yield as % of 45H21

Variety	Type	Dawson Creek 2012 % of check	Dawson Creek 2007-2012 Avg. (%)	Dawson Creek Stn. Yrs.	Fort St. John 2012 % of check	Fort St. John 2007-2012 Avg. (%)	Fort St. John Stn. Yrs.	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	B.C. Peace Stn. Yrs.
*1918**	Roundup Ready®	90	90	[1]	95	95	[1]	93	93	[2]
43E01	Roundup Ready®	96	97	[3]	95	95	[3]	95	96	[6]
*43E02**	Roundup Ready®	103	103	[1]	99	99	[1]	101	101	[2]
45H21	Roundup Ready®	100	100	[9]	100	100	[10]	100	100	[19]
45H26	Roundup Ready®	93	104	[3]	99	104	[3]	96	104	[6]
45H29 ***	Roundup Ready®	104	111	[3]	111	111	[3]	107	111	[6]
45H31	Roundup Ready®	100	103	[2]	108	109	[2]	104	106	[4]
45S51	Roundup Ready®	100	103	[2]	107	105	[2]	104	104	[4]
45S52	Roundup Ready®	98	103	[2]	113	111	[2]	105	107	[4]
6040 RR	Roundup Ready®	100	100	[2]	100	95	[2]	100	97	[4]
*6050 RR**	Roundup Ready®	113	113	[1]	105	105	[1]	109	109	[2]
*CSC-12-001** Δ	Roundup Ready®	105	105	[1]	113	113	[1]	109	109	[2]
Fusion	Roundup Ready®	94	97	[2]	103	102	[2]	98	99	[4]
Rugby	Roundup Ready®	93	101	[3]	94	95	[4]	94	98	[7]
5440	LibertyLink®	113	116	[3]	109	116	[4]	111	116	[7]
*L120**	LibertyLink®	109	109	[1]	109	109	[1]	109	109	[2]
L130	LibertyLink®	107	117	[2]	109	108	[2]	108	112	[4]
L150	LibertyLink®	106	119	[2]	113	115	[2]	110	117	[4]
Peace	conventional	70	76	[4]	69	72	[4]	70	74	[8]
5525 CL	Clearfield®	104	102	[4]	98	98	[4]	101	100	[8]
5535 CL	Clearfield®	102	99	[2]	107	102	[2]	105	101	[4]

45H21 - check variety

* caution, first year tested and or very limited data available
Δ = not currently registered
*** Club-root Resistance

Roundup Ready® is a registered trademark of Monsanto Canada Inc.
LibertyLink® is a registered trademark of Bayer CropScience
Clearfield® is a registered trademark of BASF

Note: "System Varieties" (Clearfield®, Roundup Ready®, or LibertyLink®) are grown together in with "conventional" Argentine varieties (as only one napus trial per site with a common check in 2012) and thus conventional herbicides are used for weed control. (See page 6 for herbicides used).

Coefficient of Variance (CV) values of the napus trials for 2012 were as follows: DC = 8.9 FSJ = 5.9

Argentine Canola

Variety Descriptions

Variety	Type	Herbicide Tolerance	B.C. Peace Avg. Days to Swathing[1] as +/- check 2012	2007-2012	Blackleg Rating (Data from Various info.)	Distributor
*1918**	HYB	Roundup Ready®	2.5	2.5	MR	Canterra Seeds
43E01	HYB	Roundup Ready®	-3.8	-3.1	MR	Pioneer Hi-Bred
*43E02**	HYB	Roundup Ready®	-3.5	-3.5	MR	Pioneer Hi-Bred
45H21	HYB	Roundup Ready®	0.0	0.0	MR	Pioneer Hi-Bred
45H26	HYB	Roundup Ready®	2.5	0.2	R	Pioneer Hi-Bred
45H29***	HYB	Roundup Ready®	1.3	0.9	R	Pioneer Hi-Bred
45H31	HYB	Roundup Ready®	2.8	1.4	R	Pioneer Hi-Bred
45S51	HYB	Roundup Ready®	1.3	0.6	R	Pioneer Hi-Bred
45S52	HYB	Roundup Ready®	0.8	0.6	MR	Pioneer Hi-Bred
6040 RR	HYB	Roundup Ready®	2.8	1.5	R	Brett Young
*6050 RR**	HYB	Roundup Ready®	2.0	2.0	R	Brett Young
*CSC-12-001** Δ	HYB	Roundup Ready®	3.8	3.8	R	Canterra Seeds
Fusion	HYB	Roundup Ready®	1.5	1.0	R	SeCan
■ Rugby	OP	Roundup Ready®	3.3	1.7	R	SeCan
5440	HYB	LibertyLink®	1.3	2.1	R	Bayer Crop Science
*L120**	HYB	LibertyLink®	0.5	0.5	R	Bayer CropScience
L130	HYB	LibertyLink®	1.5	0.8	R	Bayer CropScience
L150	HYB	LibertyLink®	2.3	1.4	R	Bayer CropScience
■ Peace	OP	conventional	-7.3	-3.9	R	Viterra
5525 CL	HYB	Clearfield®	2.8	3.2	R	BrettYoung
5535 CL	HYB	Clearfield®	0.8	0.6	R	Brett Young

■ Protection by Plant Breeders' Rights

* caution, first year tested and/or very limited data.

R = Resistant, **MR** = Moderately Resistant, **MS** = Moderately Susceptible
OP = open pollinated, **SYN** = synthetic, **HYB** = hybrid

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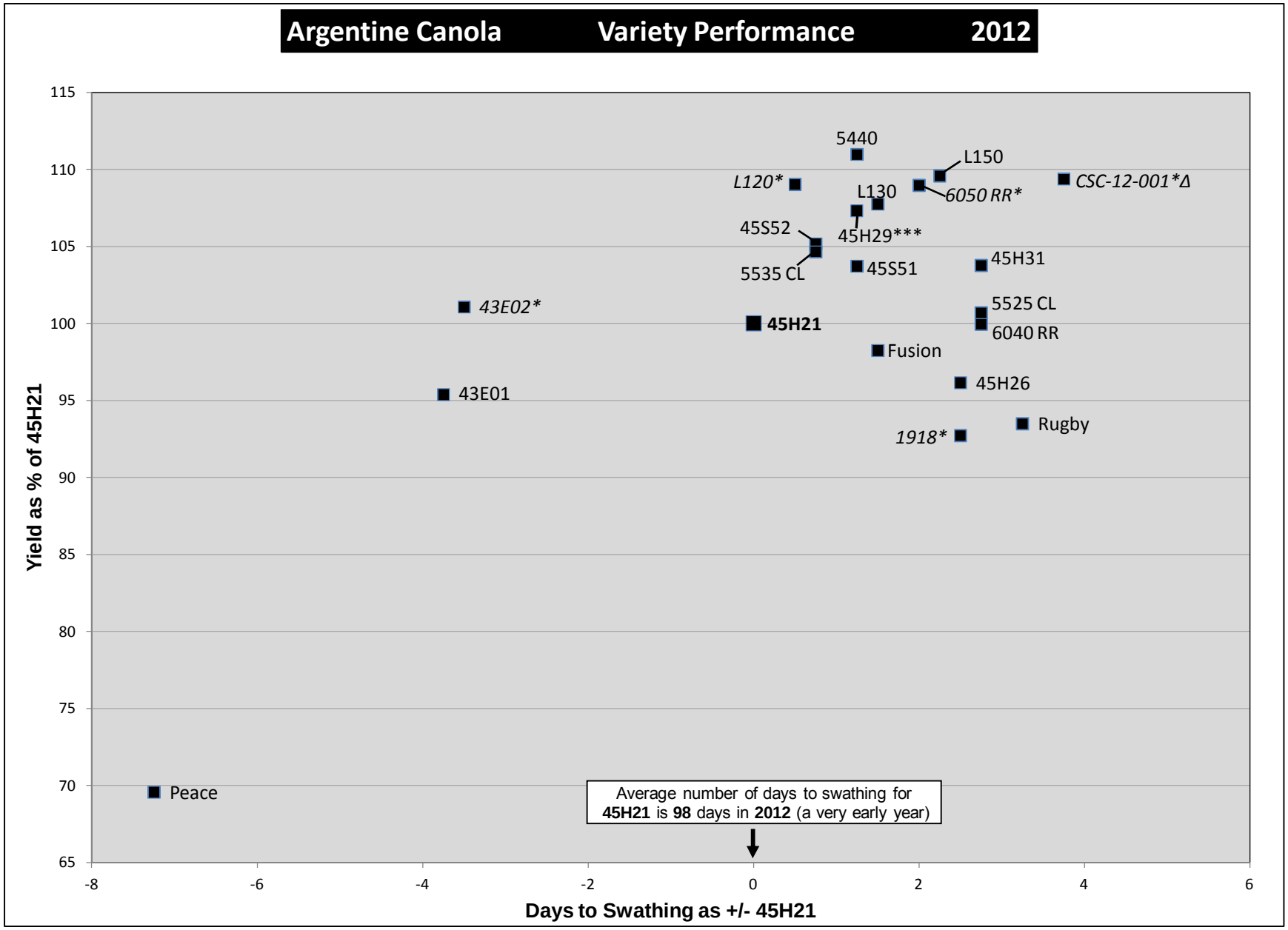
LibertyLink® is a registered trademark of Bayer CropScience
Clearfield® is a registered trademark of BASF

[1]For full description of "*Days to swathing*" see page 23.

Δ = not currently registered

*** Club-root Resistance

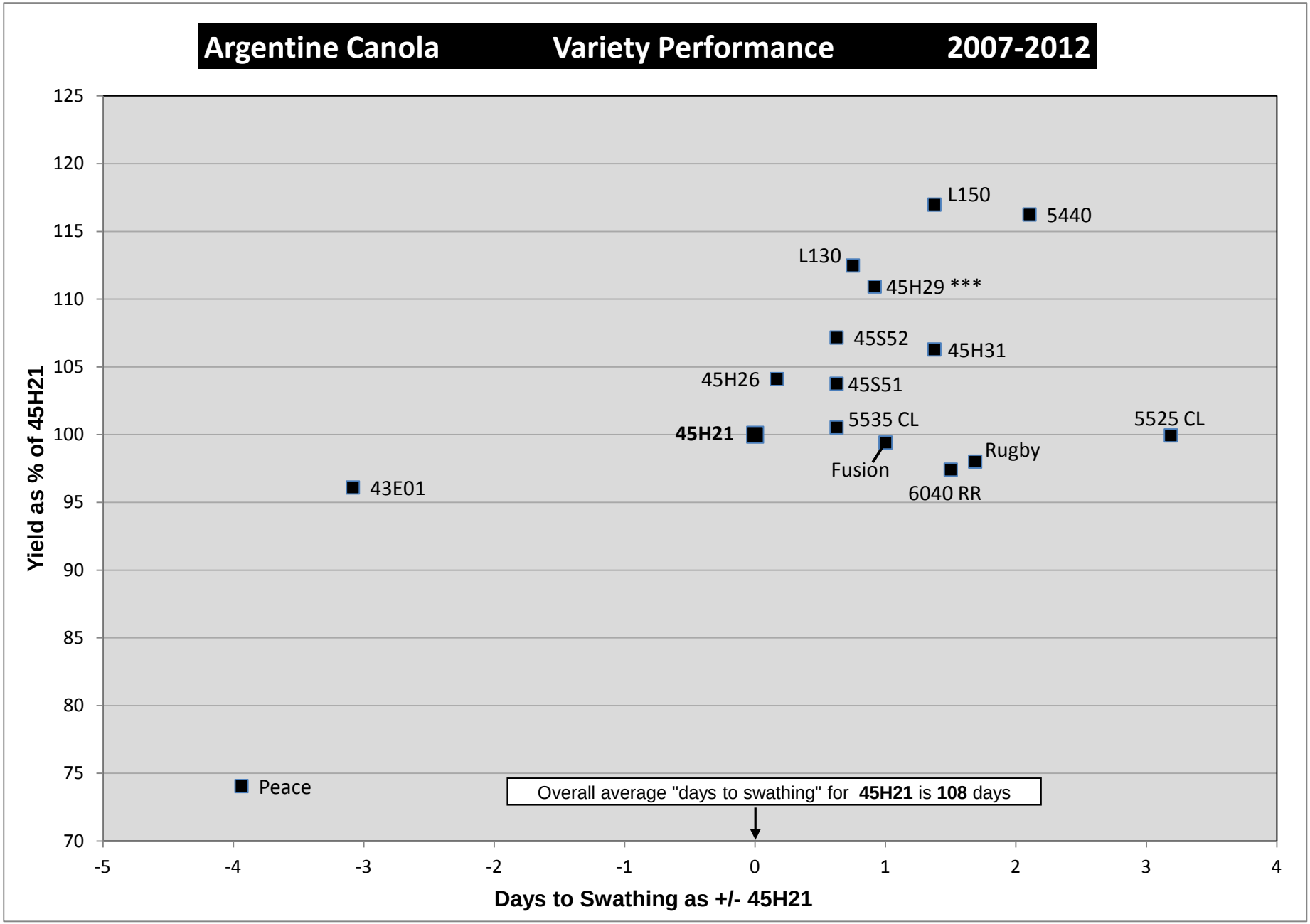
Average 'days to swathing' for **45H21** is **98** days for **2012**
Overall average 'days to swathing' for **45H21** is **108** days



*** Club-root Resistance

Δ = not currently registered

* first year tested materials



*** Club-root Resistance

CANOLA

Warning: data presented below is composed from two sites, one year only.

Please refer to *www.CanolaPerformanceTrials.ca* for further short-season information involving other CPT site results.

Canola Performance Trial (CPT) — B.C. Peace Sites — 2012

Variety	Type	Herbicide Tolerance	Dawson Creek 2012 YIELD bu/ac	Dawson Creek 2012 Maturity Days to	Fort St. John 2012 YIELD bu/ac	Fort St. John 2012 Maturity Days to	B.C. Peace 2012 Avg. YIELD bu/ac	B.C. Peace 2012 Avg. Maturity Days to	Distributor
Clearfield® herbicede tolerant system									
5525 CL	HYB	Clearfield®	45 a	100.3	52 e	100.0	49	100	Brett Young
5535 CL	HYB	Clearfield®	49 a	95.7	57 b-e	98.7	53	97	Brett Young
VR 9560 CL	HYB	Clearfield®	48 a	101.3	58 b-e	101.0	53	101	Viterra
LibertyLink® herbicede tolerant system									
5440	HYB	LibertyLink®	43 a	98.0	56 b-e	98.7	50	98	Bayer CropScience
L120	HYB	LibertyLink®	46 a	97.0	58 b-e	98.0	52	98	Bayer CropScience
L130	HYB	LibertyLink®	41 a	98.7	57 b-e	98.0	49	98	Bayer CropScience
L150	HYB	LibertyLink®	46 a	99.0	63 ab	99.3	55	99	Bayer CropScience
L154	HYB	LibertyLink®	46 a	100.3	61 a-d	99.3	53	100	Bayer CropScience
L159	HYB	LibertyLink®	43 a	98.7	56 cde	100.0	49	99	Bayer CropScience
Roundup Ready® herbicede tolerant system									
1990	HYB	Roundup Ready®	47 a	100.7	60 a-d	100.7	54	101	Canterra Seeds
6050 RR	HYB	Roundup Ready®	50 a	100.0	59 bcd	99.0	55	100	Brett Young
6060 RR	HYB	Roundup Ready®	42 a	101.0	56 cde	101.7	49	101	Brett Young
72-65 RR	HYB	Roundup Ready®	48 a	97.0	57 b-e	100.7	52	99	Dekalb
73-15 RR	HYB	Roundup Ready®	48 a	97.3	58 b-e	98.0	53	98	Dekalb
73-45 RR	HYB	Roundup Ready®	51 a	99.0	60 bcd	97.7	56	98	Dekalb
73-75 RR	HYB	Roundup Ready®	48 a	98.0	62 abc	100.3	55	99	Dekalb
74-44 BL	HYB	Roundup Ready®	50 a	98.7	59 bcd	100.0	55	99	Dekalb
74-47 CR	HYB	Roundup Ready®	50 a	101.0	65 a	100.3	57	101	Dekalb
94H04	HYB	Roundup Ready®	44 a	97.3	54 de	96.7	49	97	FP Genetics
V12-1 **	HYB	Roundup Ready®	43 a	98.0	57 b-e	99.3	50	99	Cargill Specialty Oils
VR 9559 G	HYB	Roundup Ready®	48 a	100.7	58 b-e	99.7	53	100	Viterra
VT-OU 08-11008 Δ	HYB	Roundup Ready®	39 a	99.7	55 de	101.0	47	100	Viterra
LSD (P=.05)			7.36		3.64				
Standard Deviation			5.20		2.57				
CV			11.26		4.4				

■ Protection by Plant Breeders' Rights

Δ not currently registered

OP = open pollinated, **SYN** = synthetic, **HYB** = hybrid

Caution, one year data so very limited data

** specialty oil

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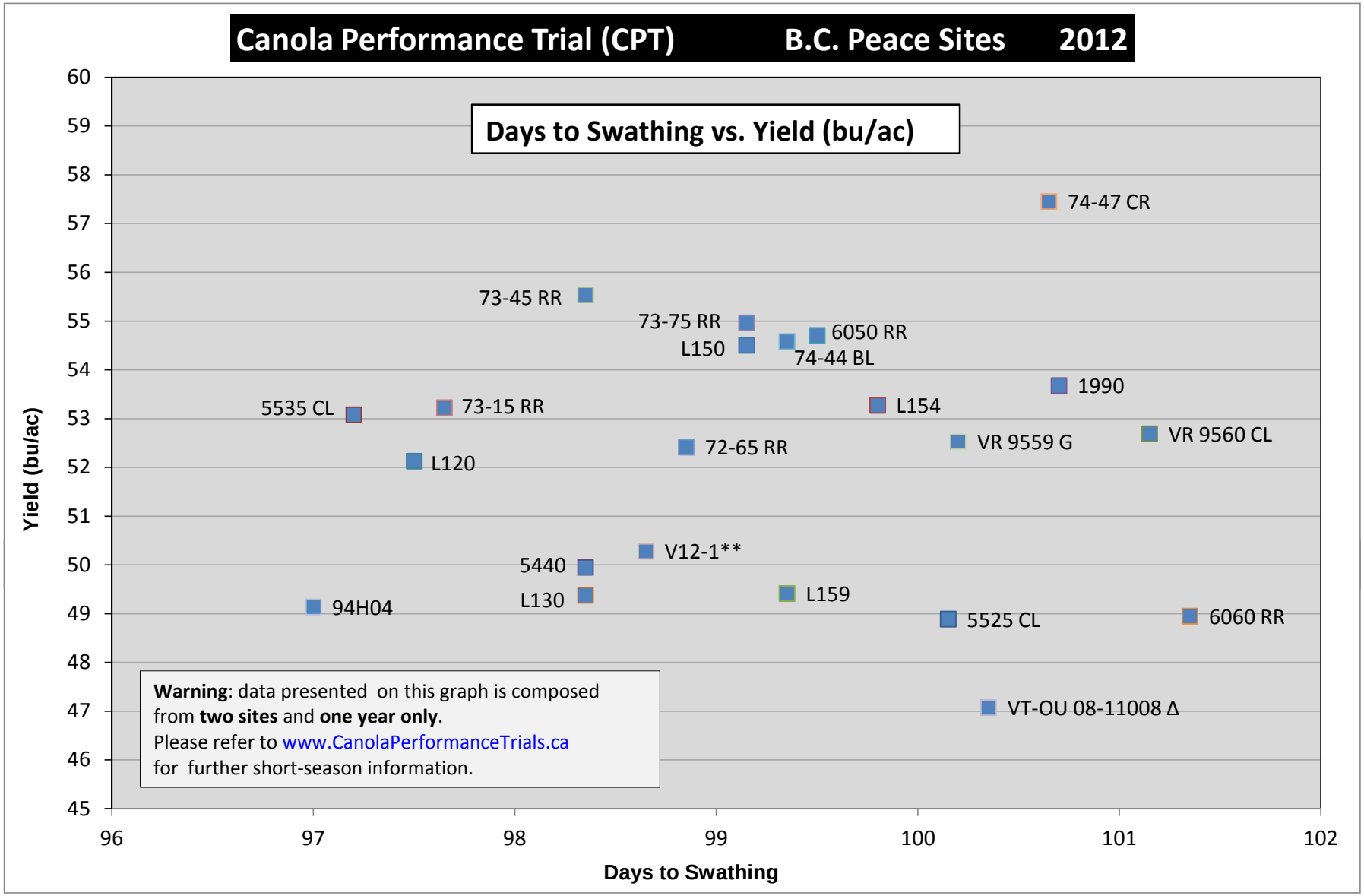
Clearfield® is a registered trademark of BASF

The following description of the CPT trials was provided by: **seed.ab.ca** publication (Winter, 2011). Italics are minor changes by BCGPA to be current with 2012.

Canola Performance Trials are coordinated by the Canola Council of Canada
Note: The CPT system is not affiliated with provincial regional variety testing.

This canola variety table summarizes the performance of selected registered canola varieties available for planting in spring *2013*. The post-registration Canola Performance Trial (CPT) testing in *2012* was designed to be more reflective of field practices. The appropriate herbicide products have been applied to the matching herbicide tolerant (HT) varieties in small plots, with no 'check' variety assigned. Individual location data for the small plot trials are available at *www.Canola PerformanceTrials.ca*, but the best performance indicator is to compare varieties over multiple sites. This also includes comparing performance of small plot trials with field scale trial results. The CPT information on-line provides both data sources which have been reviewed through a protocol and data audit process. This process assures that data was collected and trials conducted in a scientific manner and that comparisons are unbiased. With the changes in trial management and data source collection, data from *2012 and* 2011 are not considered comparable to previous trials.

Detailed notes on other agronomic attributes of varieties and trials management are at *www.CanolaPerformanceTrials.ca*



** specialty oil

FIELD PEAS

Field Pea (Green Seed) — Yield as % of Cooper

Variety	**Designated Powdery Mildew Resistant	Dawson Creek 2012 Yield bus / acre		Dawson Creek 2012 Yield % of check	Dawson Creek 2007-2012 Avg. (%)	Dawson Creek 2007-2012 Stn. Yrs.	Fort St. John 2012 Yield bus / acre		Fort St. John 2012 Yield % of check	Fort St. John 2007-2012 Avg. (%)	Fort St. John 2007-2012 Stn. Yrs.	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	B.C. Peace 2007-2012 Stn. Yrs.
*CDC Limerick**	VG	36	b	68	68	[1]	62	bc	95	95	[1]	82	82	[2]
CDC Patrick	VG	48	a	92	95	[5]	67	ab	102	102	[5]	97	98	[10]
CDC Pluto	VG	48	a	91	100	[2]	67	ab	102	99	[2]	97	100	[4]
CDC Raezer	VG	51	a	97	98	[2]	59	c	91	91	[2]	94	94	[4]
CDC Striker	P	47	a	90	85	[6]	53	d	82	86	[6]	86	85	[12]
CDC Tetris	VG	50	a	95	98	[2]	67	ab	102	98	[2]	99	98	[4]
Cooper	VG	52	a	100	100	[6]	65	ab	100	100	[6]	100	100	[12]
Cutlass	VG	52	a	100	99	[5]	68	a	105	106	[5]	102	103	[10]
Mendel	VG	33	b	64	85	[5]	54	d	83	92	[5]	74	89	[10]
LSD (P=.05) =		7.84					3.50							
CV value (%) =		9.79					3.84							

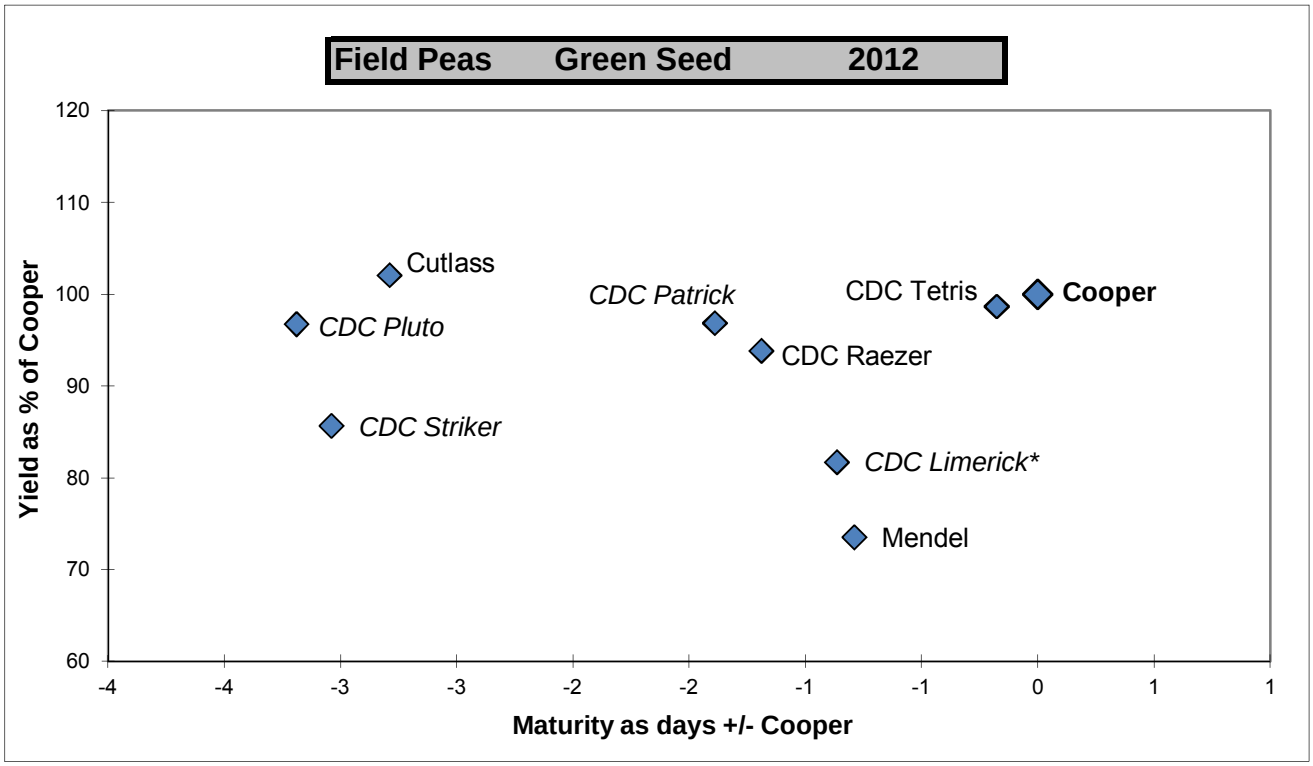
Means followed by the same letter do not significantly differ (P=.05, LSD)

Powdery Mildew resistance **VG=Very Good, **F**=Fair, **P**=Poor (data: Alberta Agdex 100/32)

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available

Cooper - check variety



Overall average maturity for **Cooper** is **94** days for **2012**

Field Pea (Yellow Seed) — Yield as % of Cutlass

Variety	**Designated Powdery Mildew Resistant	Dawson Creek 2012 Yield bus / acre		Dawson Creek 2012 Yield % of check	Dawson Creek 2007-2012 Avg. (%)	Dawson Creek 2007-2012 Stn. Yrs.	Fort St. John 2012 Yield bus / acre		Fort St. John 2012 Yield % of check	Fort St. John 2007-2012 Avg. (%)	Fort St. John 2007-2012 Stn. Yrs.	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	B.C. Peace 2007-2012 Stn. Yrs.
AAC Peace River	VG	44	ab	100	99	[3]	67	cd	91	113	[3]	96	106	[6]
*Abarth**	VG	46	a	105	105	[1]	70	bcd	94	94	[1]	99	99	[2]
Agassiz	VG	42	ab	95	103	[5]	69	bcd	94	102	[6]	95	102	[11]
Argus	VG	40	abc	91	97	[3]	68	bcd	92	110	[3]	92	103	[6]
Canstar	VG	44	ab	99	100	[5]	69	bcd	94	103	[6]	97	101	[11]
*CDC Amarillo**	VG	46	a	106	106	[1]	75	a	101	101	[1]	104	104	[2]
CDC Golden	VG	38	bcd	88	94	[5]	70	bcd	95	92	[6]	91	93	[11]
CDC Meadow	VG	42	ab	97	101	[5]	72	abc	98	101	[6]	97	101	[11]
CDC Prosper	VG	41	ab	95	98	[4]	69	bcd	93	97	[5]	94	98	[9]
CDC Saffron	VG	42	ab	96	94	[2]	76	a	103	99	[2]	100	97	[4]
CDC Treasure	VG	41	ab	94	98	[4]	69	bcd	94	100	[5]	94	99	[9]
Cutlass	VG	44	ab	100	100	[5]	74	ab	100	100	[6]	100	100	[11]
Hugo	VG	34	d	78	96	[4]	65	d	88	96	[5]	83	96	[9]
Stella Δ (F)	VG	35	cd	81	70	[3]	59	e	79	90	[3]	80	80	[6]
LSD (P=.05) =		3.80					3.51							
CV value (%) =		5.47					3.53							

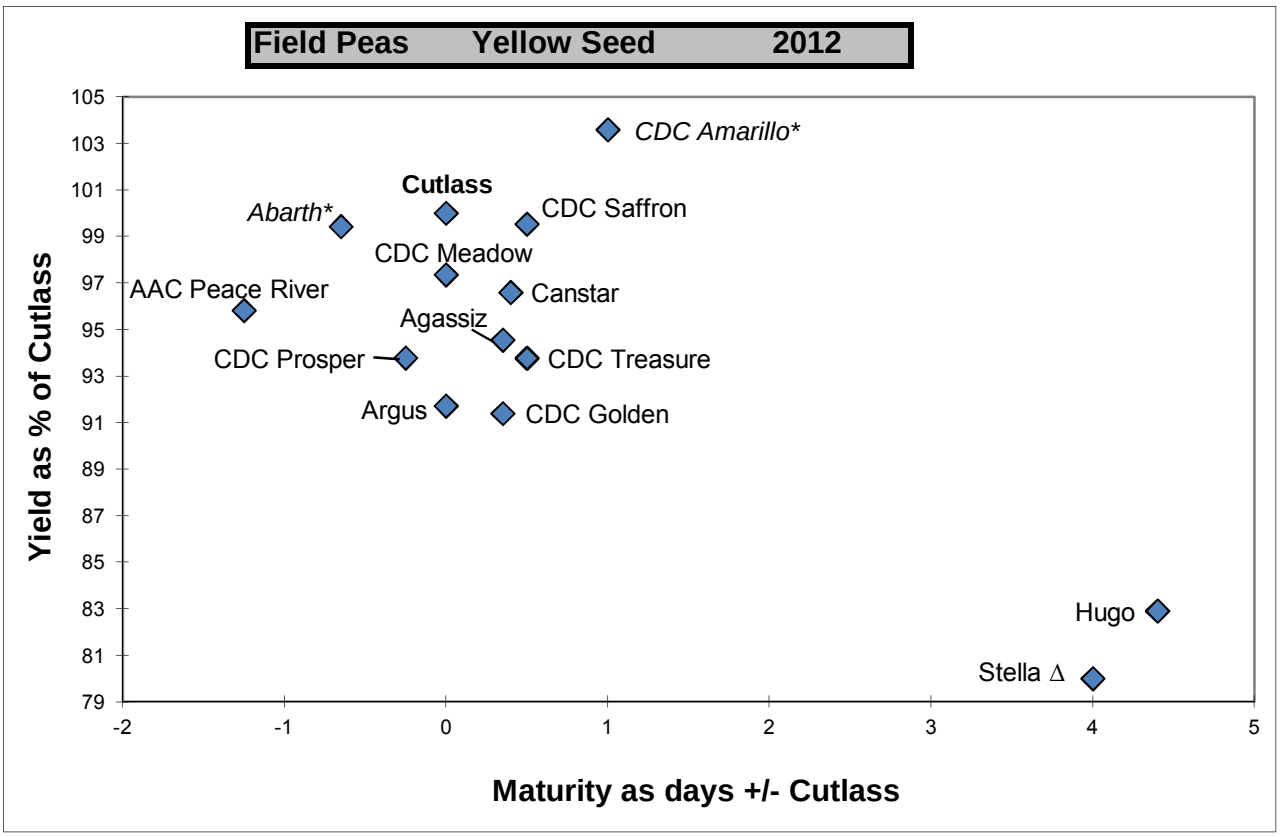
Means followed by the same letter do not significantly differ (P=.05, LSD) (F) = forage variety

**Powdery Mildew resistance: VG=Very Good, F=Fair, P=Poor (data: Alberta Agdex 100/32)

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available

Cutlass - check variety



Average maturity for **Cutlass** is **91** days for **2012**

Field Peas — Variety Descriptions

Variety	BC Peace Averages 2007-2012: Maturity as days +/- check	Vine Length cm	Lodging 1-9**	TKW g/1000	Distributor
Yellow Seed					
AAC Peace River	-3.4	75	0	227	Hadland Seed Farms
■ *Abarth**	-0.6	65	0	252	FP Genetics
■ Agassiz	-0.6	88	2	239	Canterra Seeds
■ Argus	-0.3	71	0	233	SeCan
■ Canstar	-0.7	68	2	261	Canseed (Canada) Ltd.
*CDC Amarillo**	1.0	67	0	227	Sask Pulse Growers
CDC Golden	-2.5	66	1	227	Sask Pulse Growers
CDC Meadow	-1.9	73	2	220	Sask Pulse Growers
CDC Prosper	-3.0	61	1	158	Sask Pulse Growers
CDC Saffron	0.3	77	0	261	Sask Pulse Growers
CDC Treasure	-2.4	73	1	224	Sask Pulse Growers
Cutlass	0.0	64	3	237	Sask Pulse Growers
■ Hugo	2.9	51	2	230	FP Genetics
■ Stella (F)	4.5	82	0	241	Alliance Seeds Corp.
Green Seed					
*CDC Limerick**	-0.9	64	0	227	Sask Pulse Growers
CDC Patrick	-3.8	68	1	201	Sask Pulse Growers
CDC Pluto	-11.3	82	0	186	Sask Pulse Growers
CDC Raezer	-8.9	88	0	242	Sask Pulse Growers
CDC Striker	-9.4	66	1	245	Sask Pulse Growers
CDC Tetris	-3.4	90	0	235	Sask Pulse Growers
■ **Cooper**	0.0	63	2	290	Canterra Seeds
Cutlass	-6.4	61	2	235	Sask Pulse Growers
■ Mendel	-4.3	72	1	236	FP Genetics

Some varieties may not be suitable for the human consumption market. Producers should contact their intended buyer/processor before seeding to ensure the marketability of specific varieties. Many green seeded varieties will bleach if exposed to periods of wetting and drying in the field near harvest. Uncleaned and damaged seed is considered to be low quality and is only suitable for the feed market. The amount of seed coat damage suffered during harvest varies with variety. Splitting may be reduced if peas are harvested tough (20% moisture) & dried slowly in an aeration bin.

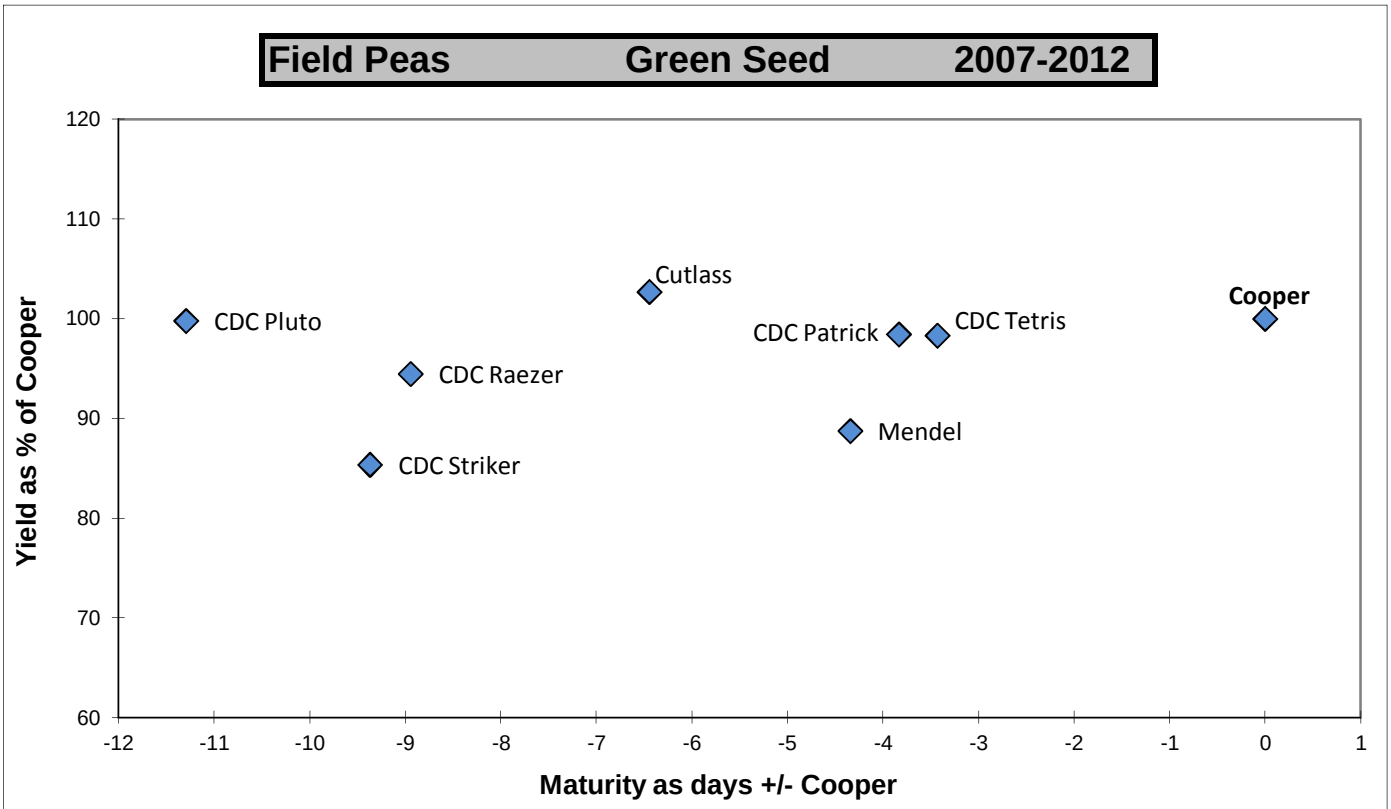
Lodging data is becoming important criteria when selecting peas for our area, as peas still standing at harvest stand a better chance of escaping ecretia contamination from large wildlife, especially if harvested as direct-cut. Note that due to variability of lodging, numbers averaged tend to be lower than can occur in a given year.

Overall average maturity for **Cutlass** is **98** days, and **105** days for **Cooper**

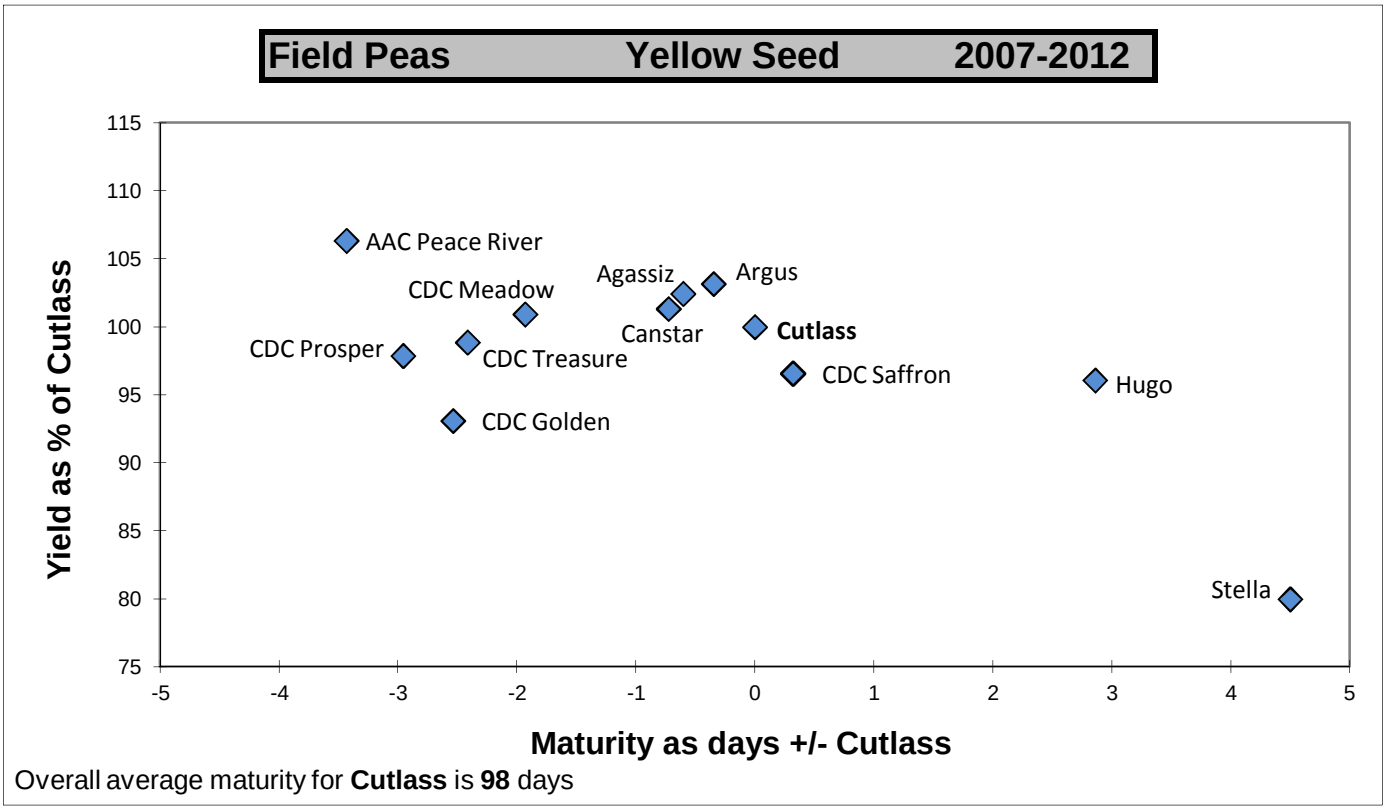
■ Protected by Plant Breeders' Rights (F) = Forage Variety

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

** 1 - 9 scale; 1 = none, 9 = 100% affected



Overall average maturity for **Cooper** is **105** days



Overall average maturity for **Cutlass** is **98** days

FLAX

Fields of flax have been successfully grown in our region for many years, however growing flax in the B.C. Peace River region is still at present a risky venture. Large acreage should be discouraged until further breeding programs have resulted in earlier maturing varieties. The BC Grain Producers Association is looking into the development of earlier maturing varieties as well as frost-tolerant lines that can be planted earlier than traditionally. *Prairie Thunder* and *Prairie Grande* are definite improvements to this end but more work needs to be done. For this reason this information is being provided here. It has become apparent that it is **very important to plant flax as early as possible** (as first advised by Dr. Paul Dribnenki, previous Viterra flax breeder)**.** This seems to prevent flower abortion in heat and reduces reflowering in August which in the end helps to deliver a more consistant and earlier maturation of the seed.

Flax — Yield as % of CDC Bethune

Variety	Dawson Creek 2012 Yield bus / acre		% of Check	Dawson Creek 2007-2012 Avg. (%)	stn yrs	Fort St. John 2012 Yield bus / acre		% of Check	Fort St. John 2007-2012 Avg. (%)	stn yrs	B.C. Peace 2012 Avg. (%)	B.C. Peace 2007-2012 Avg. (%)	stn yrs	Variety Descriptions Maturity days +/- check	Height (cm)	Distributor
■ AAC Bravo	33	a	104	106	[2]	16	b	94	99	[2]	99.1	103	[4]	3.3	63	FP Genetics
■ **CDC Bethune**	31	a	100	100	[6]	17	b	100	100	[5]	100	100	[11]	0.0	54	SeCan
■ *CDC Glas**	29	a	93	93	[1]	16	b	92	92	[1]	92.8	92.8	[2]	4.8	55	SeCan
■ CDC Sanctuary	31	a	98	108	[4]	22	a	130	113	[3]	114	110	[7]	3.0	60	SeCan
Flanders	28	a	90	97	[6]	15	b	89	101	[5]	89.2	98.9	[11]	1.8	50	SeCan
*FP2325*Δ*	28	a	90	90	[1]	11	c	67	67	[1]	78.5	78.5	[2]	2.8	55	Viterra
■ Prairie Grande	30	a	94	100	[6]	19	ab	111	109	[5]	103	105	[11]	-3.8	50	SeCan
■ Prairie Sapphire	28	a	90	88	[3]	11	c	66	78	[2]	78.2	82.8	[5]	2.5	60	Alliance Seed Corp.
■ Prairie Thunder	31	a	98	102	[6]	19	ab	111	115	[5]	105	109	[11]	-4.3	51	Canterra Seeds
LSD (P=.05) =	4.39					3.15										
CV value (%) =	10.01					13.17										

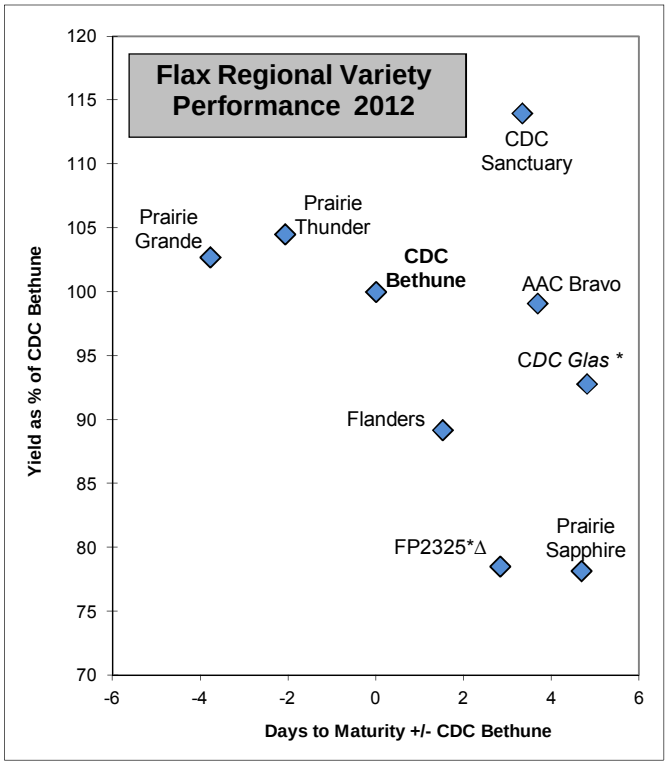
Means followed by the same letter do not significantly differ (P=.05, LSD)

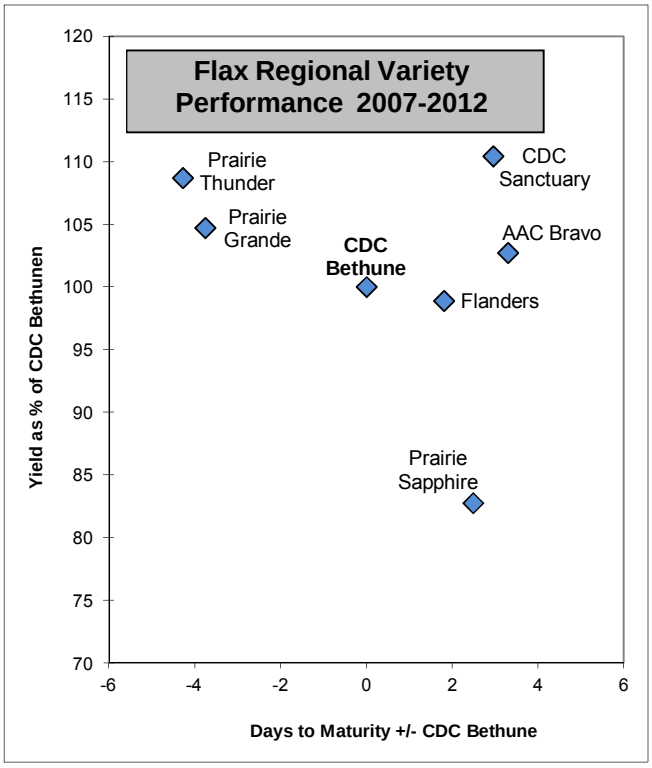
CDC Bethune - check variety

■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available





Average maturity for **CDC Bethune** is **107** days for **2012**

Overall average maturity for **CDC Bethune** is **115** days.

Summary of all 2012 Research Trials

Data used directly for the production of this report…

Regional Variety Trials	Site	Varieties	Replicates	Plots	Source
Regional 2 Row Barley *	DC	17	4	68	Alex Fedko - AAFRD-CDC North, Edmonton
Regional 6 Row Barley (& hulless) *	DC	9	4	36	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Oats *	DC	14	4	56	Alex Fedko - AAFRD-CDC North, Edmonton
Regional CWRS Wheat (HRSW) *	DC	35	4	140	Alex Fedko - AAFRD-CDC North, Edmonton
Regional GP Wheat(General Purp./CPS/SWS) *	DC	13	4	52	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Triticale *	DC	6	4	24	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Durum Wheat	DC	10	4	40	Alex Fedko - AAFRD-CDC North, Edmonton
Prairie Wide Napus CPT (Herbicide Systems)	DC	22	4	88	Rale Gjuric - Haplotech Inc. - Winnipeg
BCGPA Napus comparison trial ***	DC	22	4	88	BCGPA - Clair Langlois
Regional Flax *	DC	9	4	36	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Green Field Pea *	DC	9	4	36	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Yellow Field Pea *	DC	14	4	56	Alex Fedko - AAFRD-CDC North, Edmonton
Collaborative Lentil Trial (AB/BC Peace Initiative)	DC	8	4	32	SARDA, MARA, BRRG, BCGPA collaboration
Regional 2 Row Barley *	FSJ	17	4	68	Alex Fedko - AAFRD-CDC North, Edmonton
Regional 6 Row Barley (& hulless) *	FSJ	9	4	36	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Oats *	FSJ	14	4	56	Alex Fedko - AAFRD-CDC North, Edmonton
Regional CWRS Wheat (HRSW) *	FSJ	35	4	140	Alex Fedko - AAFRD-CDC North, Edmonton
Regional GP Wheat(General Purp./CPS/SWS) *	FSJ	13	4	52	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Triticale *	FSJ	6	4	24	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Durum Wheat	FSJ	10	4	40	Alex Fedko - AAFRD-CDC North, Edmonton
Prairie Wide Napus CPT (Herbicide Systems)	FSJ	22	4	88	Rale Gjuric - Haplotech Inc. - Winnipeg
BCGPA Napus comparison trial ***	FSJ	22	4	88	BCGPA - Clair Langlois
Regional Flax *	FSJ	9	4	36	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Green Field Pea *	FSJ	9	4	36	Alex Fedko - AAFRD-CDC North, Edmonton
Regional Yellow Field Pea *	FSJ	14	4	56	Alex Fedko - AAFRD-CDC North, Edmonton
Collaborative Lentil Trial (AB/BC Peace Initiative)	FSJ	8	4	32	SARDA, MARA, BRRG, BCGPA collaboration

Data used for *plant breeding* and *variety registration* support, thus support for future new materials for future reports..

Varietal Development	Site	Varieties	Replicates	Plots	Source
Barley					
Western 2-Row Co-op Barley	DC	36	3	108	Dr. Tom Zatorski - U of S Malt B Prgm
Western 6-row Co-op Barley	DC	20	3	60	Dr. Ana Badea - Ag Canada - Brandon
B-Y4 Barley Co-op - Grain Yields **	DC	25	3	75	Pat Juskiw/J. Nyachiro - AAFCDC Lacombe
Viterra - 2-Row Barley Marketing **	DC	18	3	54	Jim Anderson - Viterra (Calgary)
Beans					
Dry Bean Variety Adaptation Trial	DC	16	4	64	Dr. Parthiba Balasubramanian - AgCan Lethr.
Dry Bean Variety Adaptation Trial	FSJ	16	4	64	Dr. Parthiba Balasubramanian - AgCan Lethr.
Camelina					
Ag Canada - Camelina Biodiesel Feedstock **	DC	14	4	56	Dr. Christina Eynck, AAFC-Saskatoon
Ag Canada - Camelina Biodiesel Feedstock **	FSJ	14	4	56	Dr. Christina Eynck, AAFC-Saskatoon
Canola					
Ag Canada - Prelim/Public Rapa Co-op **	DC	21	3	63	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
Ag Canada - Prelim/Public Rapa Co-op **	FSJ	21	3	63	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
DL-Seed Napus Trial 301 **	DC	25	3	75	Dr. Kevin McCallum - DL Seeds, MB
DL-Seed Napus Trial 302 **	DC	25	3	75	Dr. Kevin McCallum - DL Seeds, MB
DL-Seed Napus Trial 900 **	DC	25	3	75	Dr. Kevin McCallum - DL Seeds, MB
PIONEER - Napus CCNSR-351(early season) **	DC	16	4	64	Jason Nordstrom, Pioneer Hi-Bred, Edmonton
PIONEER - Napus CCNSR-351(early season) **	FSJ	16	4	64	Jason Nordstrom, Pioneer Hi-Bred, Edmonton
WCC/RRC Napus NS1 Co-op **	DC	25	3	75	Raymond Gadoua - Canola Council
WCC/RRC Napus NS2 Co-op **	DC	20	3	60	Raymond Gadoua - Canola Council
WCC/RRC Napus NS3 Co-op **	DC	20	3	60	Raymond Gadoua - Canola Council
Viterra Napus Herbicide Systems CPC CL/LL **	DC	9	3	27	Tim Ferguson / Daryl Rex - Viterra, Saskatoon
Viterra Napus Herbicide Systems CPC RR **	DC	25	3	75	Tim Ferguson / Daryl Rex - Viterra, Saskatoon
Viterra Napus Short-Season RR **	DC	5	3	15	Tim Ferguson / Daryl Rex - Viterra, Saskatoon
Viterra Napus Short-Season RR **	FSJ	5	3	15	Tim Ferguson / Daryl Rex - Viterra, Saskatoon

* some entries sourced & entered by BCGPA
** fee-for-service research
*** all entries sourced by BCGPA or their inclusion requested by local agri-business

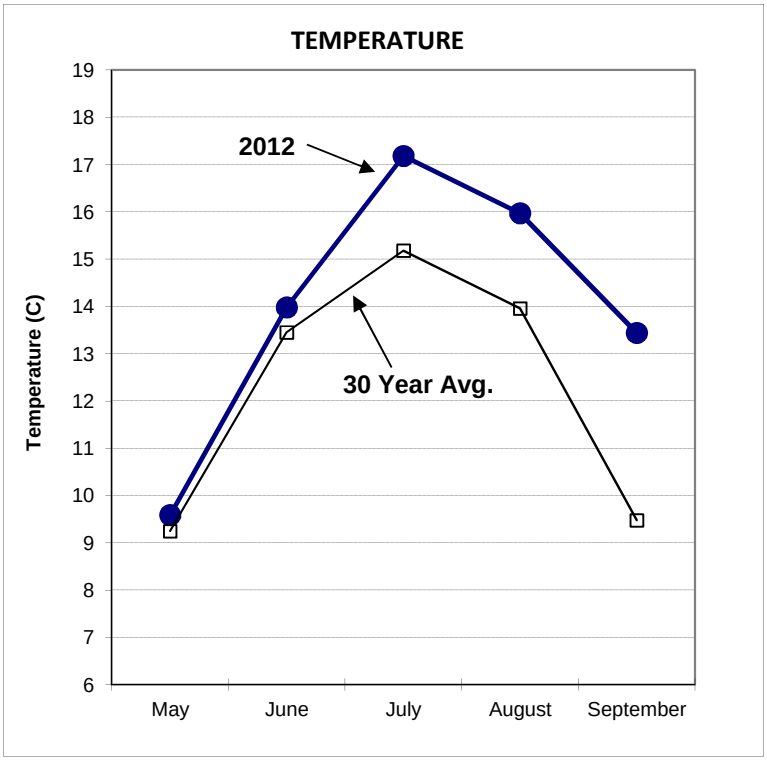
Varietal Development *continued …*	Site	Varieties	Replicates	Plots	Source
Flax					
Early Flax CFET #1 Co-op	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax CFET #1 Co-op	FSJ	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax CFET #3 Co-op	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Short-Season Flax Co-op	DC	25	3	75	Michelle Beaith, Viterra, Saskatoon, SK
Flax - NorFlax-Prject - CCF120-01 DC	DC	25	2	50	Michelle Beaith, Viterra, Saskatoon, SK
Flax - NorFlax-Prject - CCF120-02 DC	DC	25	2	50	Michelle Beaith, Viterra, Saskatoon, SK
Flax - NorFlax-Prject - CCF120-03 DC	DC	25	2	50	Michelle Beaith, Viterra, Saskatoon, SK
Flax - NorFlax-Prject - CCF120-04 DC	DC	25	2	50	Michelle Beaith, Viterra, Saskatoon, SK
Flax - NorFlax-Prject - CCF120-05 DC	DC	25	2	50	Michelle Beaith, Viterra, Saskatoon, SK
Flax - NorFlax-Prject - CCF120-06 DC	DC	25	2	50	Michelle Beaith, Viterra, Saskatoon, SK
Oat					
Advantage® Oat Private Co-op B **	DC	30	3	90	Dr. Jim Dyck - Advantage
Oat Private Co-op (Prelim-L) **	DC	175	1	175	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Oat Co-op (BOAT) **	DC	49	3	147	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Western Oat Co-op (WCORT)	DC	30	3	90	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Oat Organic Co-op (BORG) - hand weeded **	DC	25	3	75	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Pea					
"Peace Field Pea Project" PYT06	FSJ	36	2	72	Dr. Dengjin Bing - Ag Canada - Lacombe
"Peace Field Pea Project" PYT07	FSJ	36	2	72	Dr. Dengjin Bing - Ag Canada - Lacombe
Field Pea - Short-Season - Co-op "C"	FSJ	13	3	39	Dr. Dengjin Bing - Ag Canada - Lacombe
Triticale					
T-Y41 Triticale Grain Pre-Co-op	DC	19	3	57	Dr. Mazen Aljarrah - AAFC Lacombe
T-Y42 Triticale Grain Pre-Co-op	FSJ	19	3	57	Dr. Mazen Aljarrah - AAFC Lacombe
Triticale Registration Co-op Test	DC	20	4	80	Dr. Harpinder Randhawa - AAFC - Lethbridge
Wheat					
Early Wheat Parkland A1 (3m plots) **	FSJ	100	2	200	Dr. Gavin Humphreys/S.Fox - AAFC Winnipeg
Early Wheat Parkland A2 (3m plots) **	FSJ	100	2	200	Dr. Gavin Humphreys/S.Fox - AAFC Winnipeg
Early Wheat Parkland A3 (3m plots) **	FSJ	30	3	90	Dr. Gavin Humphreys/S.Fox - AAFC Winnipeg
Early Wheat P8FHB3 (3m plots) **	FSJ	120	1	120	Dr. Gavin Humphreys/S.Fox - AAFC Winnipeg
Early Wheat PR8FHB4 (3m plots) **	FSJ	80	1	80	Dr. Gavin Humphreys/S.Fox - AAFC Winnipeg
Early Wheat PR83AWM (3m plots) **	FSJ	180	1	180	Dr. Gavin Humphreys/S.Fox - AAFC Winnipeg
Early Wheat PRRDH (3m plots) **	FSJ	150	1	150	Dr. Gavin Humphreys/S.Fox - AAFC Winnipeg
Parkland 'B' Wheat Private Co-op (U of A) **	FSJ	25	3	75	Dr. Dean Spaner - U of A, Edmonton, AB
Parkland 'TGAYT' Wheat Co-op (U of A) **	FSJ	20	3	60	Dr. Dean Spaner - U of A, Edmonton, AB
Parkland 'C' Wheat Co-op	DC	36	3	108	Alanna Olson - AAFC Beaverlodge
Parkland 'C' Wheat Co-op	FSJ	36	3	108	Alanna Olson - AAFC Beaverlodge
Viterra Wheat Marketing **	DC	25	3	75	Jim Anderson - Viterra (Calgary)
Agronomic Trials					
Bayer - Flea Beetle Control - Seed-Trt **	DC	11	4	44	Alex Matus - Bayer CropScience, Calgary
Bayer - Flea Beetle Control - Seed-Trt **	FSJ	11	4	44	Alex Matus - Bayer CropScience, Calgary
BeckerUnderwood-Flea Beetle Seed Trt **	DC	7	6	42	Piran Cargeeg - Becker Underw. - Saskatoon
BeckerUnderwood-Flea Beetle Seed Trt **	FSJ	7	6	42	Piran Cargeeg - Becker Underw. - Saskatoon
Cereal Rust Plots (individual plots)	DC	5	1	5	Tom Fetch - AAFC Winnipeg
Spring Wheat Seeding Rate Study	DC	25	4	100	BCGPA (Dr. O'Donovan input-AAFC Lacombe)
Spring Wheat Seeding Rate Study	FSJ	25	4	100	BCGPA (Dr. O'Donovan input-AAFC Lacombe)
PV Seeds - Spinach & Raddish Seed Yield**	FSJ	7	2	14	Jay Schafer - Pop Vriend Seeds USA-Wash.

**fee-for-service research

Site:
FSJ = Vic Blanchette, Fort St. John, BC
DC = School District #59, (Hudson School Farm property), Dawson Creek, BC

Sources:
AAFRD = Alberta Agriculture, Food and Rural Development
AAFC = Agriculture and Agri-Food Canada
ARECA = Agricultural Research and Extension Council of Alberta
MRC = Morden Research Centre, Agriculture & Agrifood Canada, Morden, Manitoba
UofS = University of Saskatchewan, Saskatoon, Saskatchewan
BCGPA = British Columbia Grain Producers Association

Dawson Creek Weather Information 2012



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
May	10	9
June	14	13
July	17	15
August	16	14
September	13	9

Frost Events: May 19 -6.35 September 15 -2.2
May 20 -1.8

Killing Frost (-2.2 C) Free Period: 121
May 19 - September 15

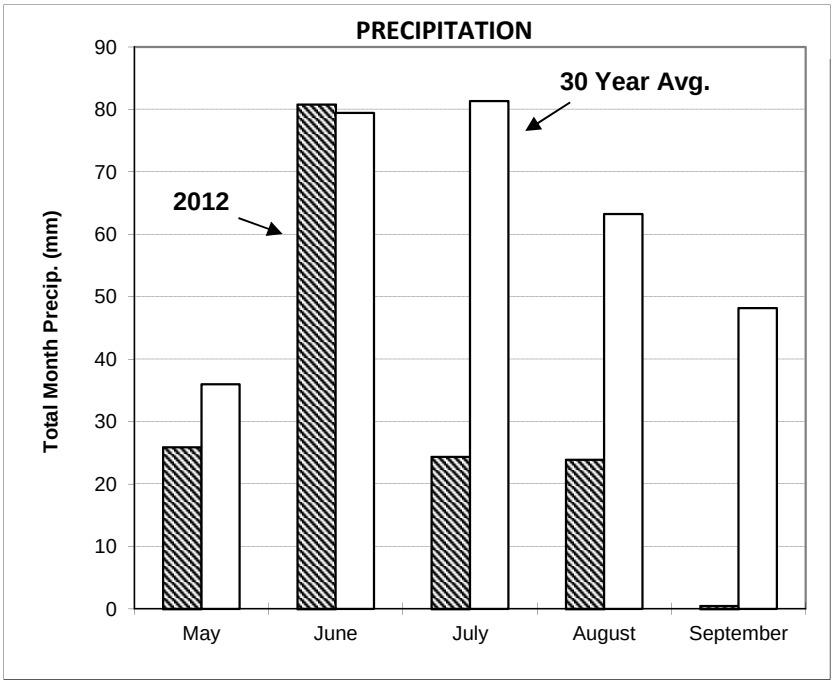
Accumulated Growing Degree Days:
2012: 1264
1994-2012 Average: 1169

* 30 year average DC from 1968-1997
Source: Environment CANADA

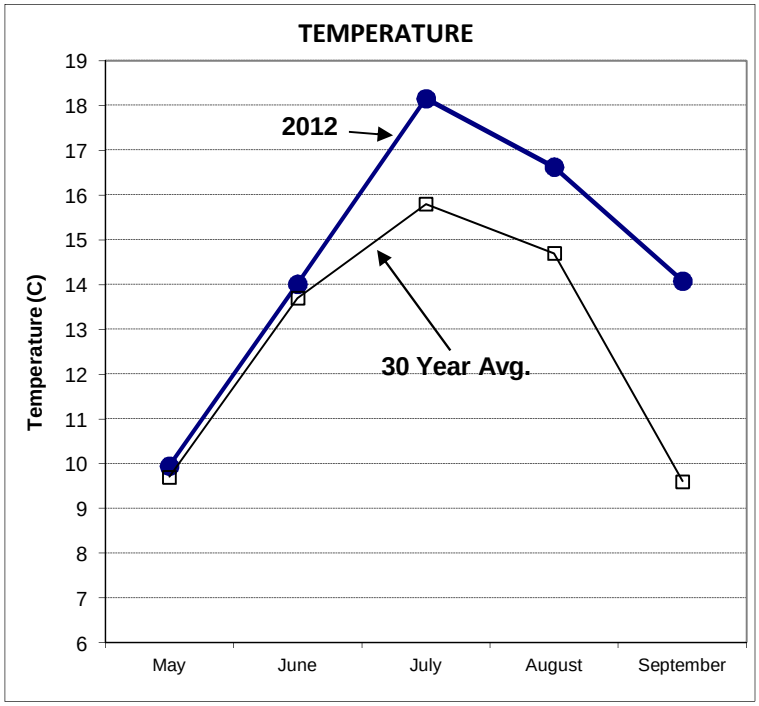
PRECIPITATION

Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
May	26	36
June	81	79
July	24	81
August	24	63
September	1	48

Data is provided by an on site weather station maintained by the Canadian Wheat Board and the BC Grain Producers Association.



Fort St. John Weather Information 2012



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
May	10	10
June	14	14
July	18	16
August	17	15
September	14	10

Frost Events:

May 18	-2.5		September 15	-0.8
May 19	-3.7		September 16	-2.7

Killing Frost (-2.2 C) Free Period: 122
May 19 - September 16

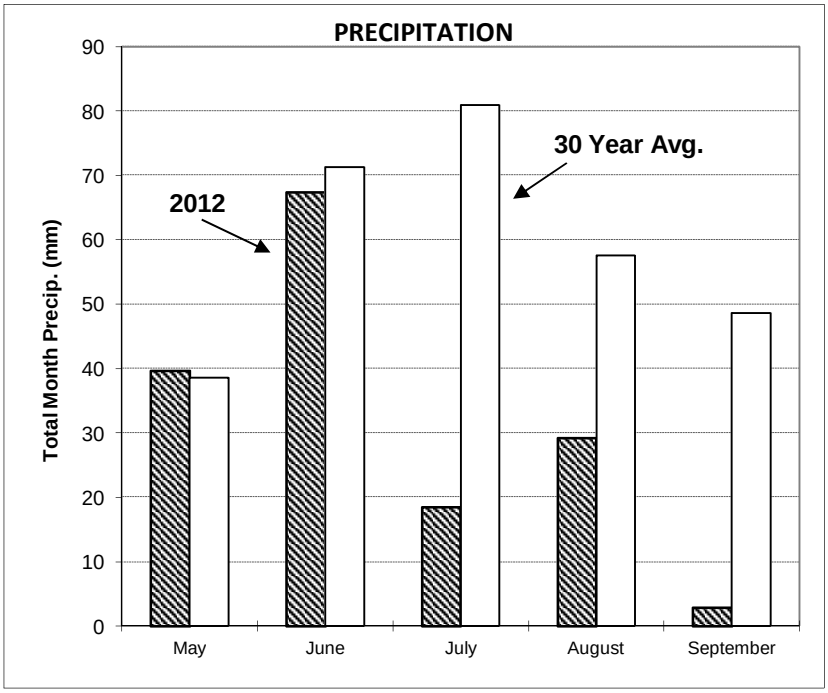
Accumulated Growing Degree Days:
2012: 1329
1994-2012 Average: 1162

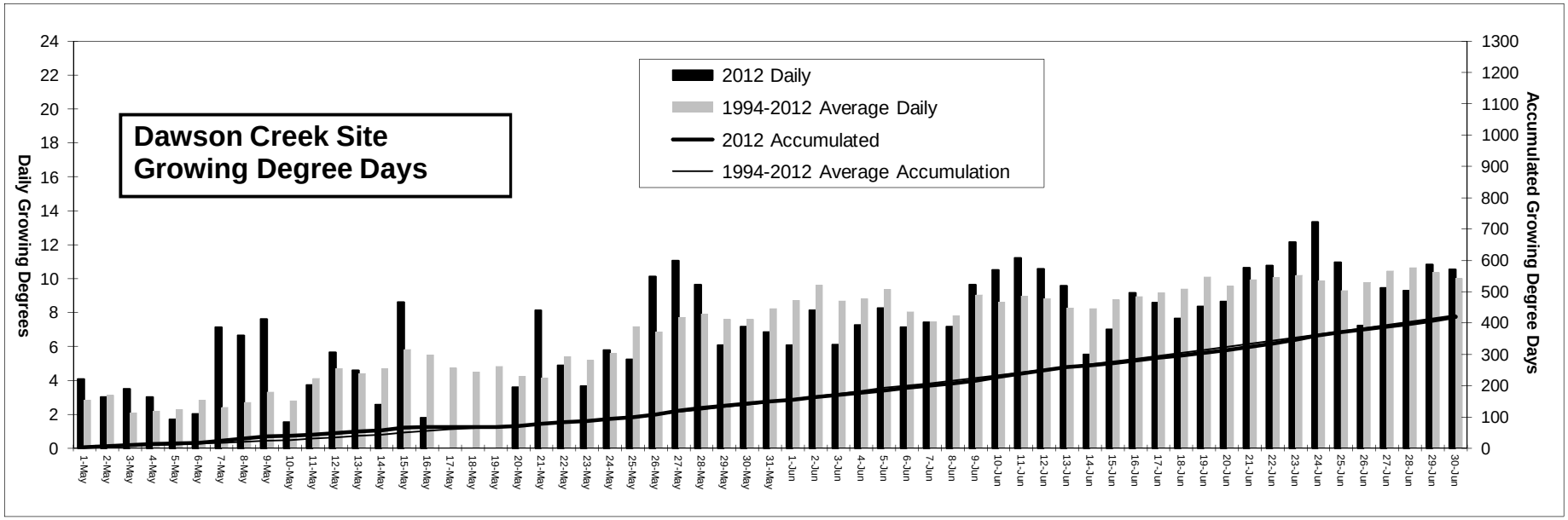
* 30 year average FSJ from 1968-1997
source: Environment CANADA

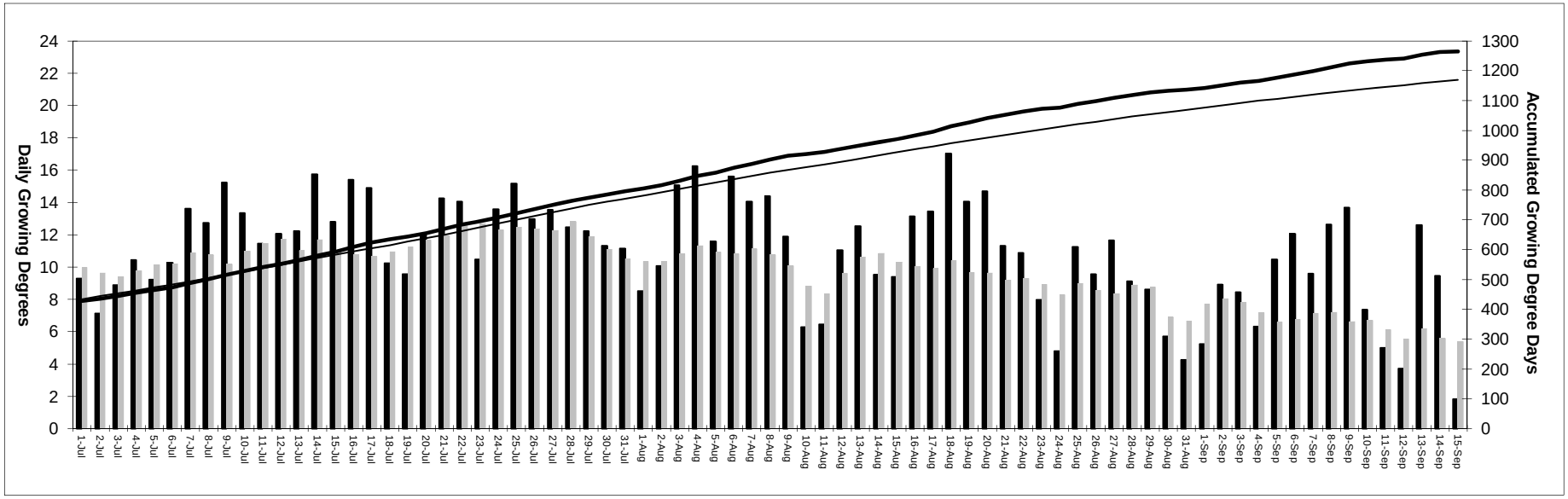
PRECIPITATION

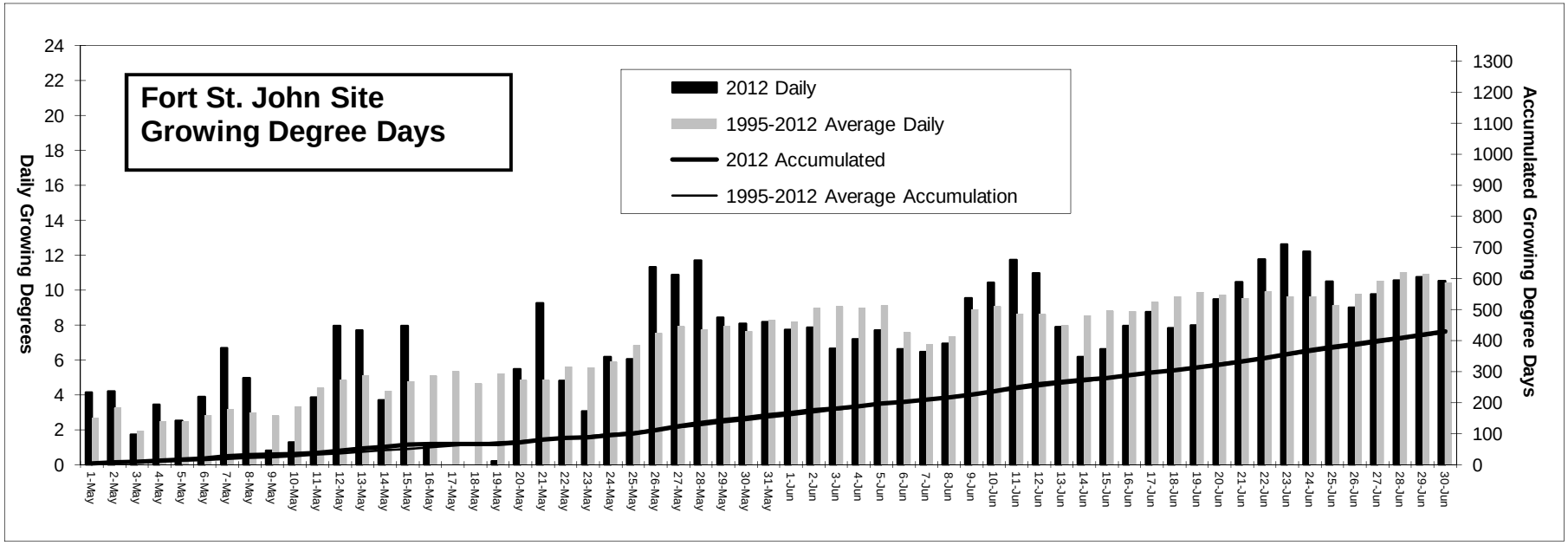
Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
May	40	39
June	67	71
July	19	81
August	29	58
September	3	49

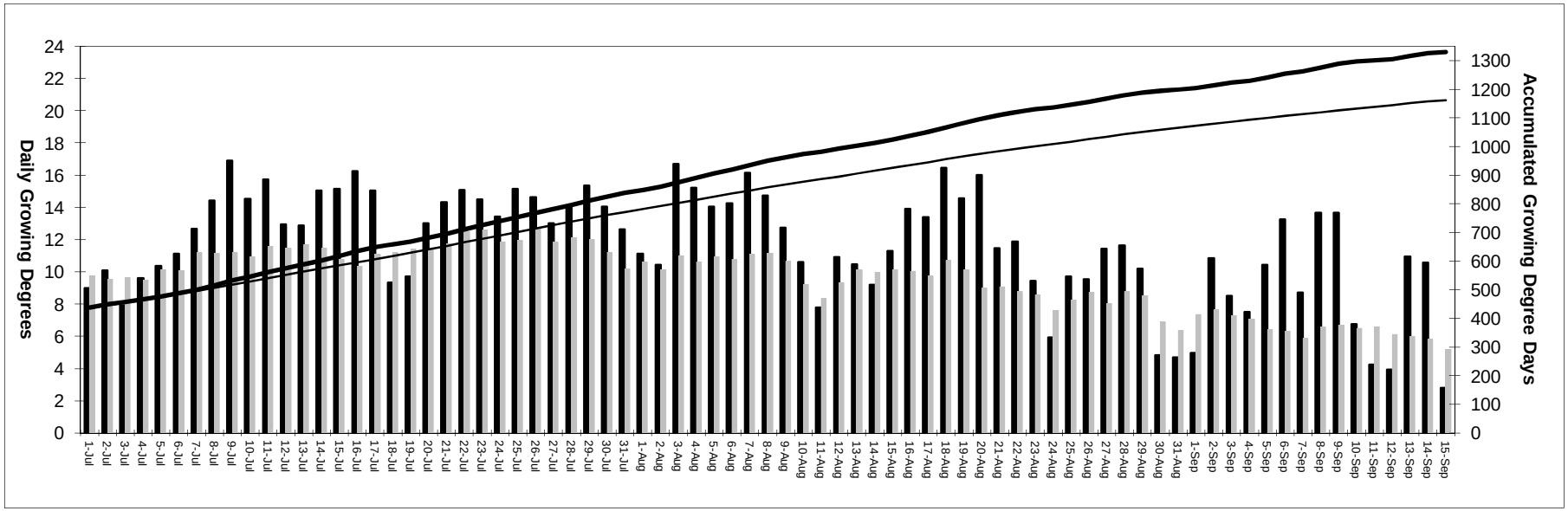
Data is provided by an on site weather station maintained by the Canadian Wheat Board and the BC Grain Producers Association.




Dawson Creek Site
Growing Degree Days
2012 Daily
1994-2012 Average Daily
2012 Accumulated
1994-2012 Average Accumulation
Daily Growing Degrees
Accumulated Growing Degree Days


Daily Growing Degrees
Accumulated Growing Degree Days


Fort St. John Site
Growing Degree Days
2012 Daily
1995-2012 Average Daily
2012 Accumulated
1995-2012 Average Accumulation
Daily Growing Degrees
Accumulated Growing Degree Days


Daily Growing Degrees
Accumulated Growing Degree Days

List of Certified Seed Distributors

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www.allianceseed.com

Bayer CropScience Inc. Canada
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Toll-Free :1(888) 283-6847 Phone:(403)-723-7400
www.bayercropscience.ca

Brett - Young Seeds Ltd.
P.O. Box 99, St. Norbert Postal Station,
Winnipeg, MB R3V 1L5
Toll-Free: 1(800) 665-5015
www.brettyoung.ca

Canseed Ltd.
R.R. #1, Box 1155 Stettler, AB T0C 2L0
Phone: (403)-742-4091 Fax: (403)-742-0621

Canterra Seeds Ltd.
201-1475 Chevier Blvd. Winnipeg, MB R3T 1Y7
Phone: (204)-988-9750 Fax:(204) 487-7682
www.canterra.com

Cargill Ltd.
P.O. Box 5900 300-240 Graham Avenue Winnipeg, MB
R3C 4C5 Phone:(204)-947-0141 Fax:(204)-947-6444
www.cargill.ca

DL Seeds
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Phone: (204)-331-2361 Fax:(204)-325-8052
www.dlseeds.ca

FP Genetics
426 McDonald Street Regina, SK S4N 6E1
Toll Free: 1(877) 791-1045 Fax: 1(877) 791-1046
www.fpgenetics.ca

Hadland Seed Farm Ltd.
8161 253 Rd, Baldonnel BC,V0C 1C0
Phone: (250)-789-3646

Mastin Seeds
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Phone:(403)-556-2609 Fax: (403)-507-2609
www.mastinseeds.com

Monsanto Canada Inc (DEKALB)
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Toll-Free:1(800) 667-4944 Phone: (204)-985-1000
www.monsanto.ca

Pioneer Hi-Bred Ltd. (DuPont)
P.O. Box 730, 7398 Queen's Line Chatham, ON
N7M 5L1 Phone: (519)-352-6350
www.pioneer.com/canada

Richardson International
2800 One Lombard Place, Winnipeg, MB R3B 0X8
Toll Free:1-866-217-6211
Phone: (204)-934-5961
http://www.richardson.ca

Saskatchewan Pulse Growers
104 - 411 Downey Road Saskatoon, SK S7N 4L8
Phone: (306)-668-5556 Fax: (306)-668-5557
www.saskpulse.com

SeCan Association
400 - 300 Terry Fox drive Kanata, ON K2K 2E2
Toll-Free:1(800)-665-7333(Western Canada)
www.secan.com

Seed Depot Corp.
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Phone: (204)-825-2000
www.seeddepot.ca

SeedNet Inc.
John Huvenaars Phone: (403) 725-2126
http://www.seednet.ca

Solick Seeds Ltd.
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Phone: (403)-884-2358 Fax: (403)-884-2360

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Toll-Free:1(888)-368-4211 Phone:(519)-836-5665
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Viterra
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www.mysmartfoods.com

Wagon Wheel Seed Corp.
Box 229 Churchbridge, SK S0A 0M0
Phone: (306)-896-2236 Fax: (306)-896-2696
http://www.wagonwheelseeds.sk.ca

Photo (above): Cereal research plots at Dawson Creek's research farm around early August 2012; barley to the left, wheat to the right, oats far left. Canola research can be seen at the far back (south end). 2012 was a year of good moisture initially after planting but then almost no significant moisture after July 1st with higher than normal heat and only one main rain event in mid-August. The longer seasoned crops, mainly canola and flax, reflect this moisture stress in lower but acceptable yields. The Fort St. John research site faired a little better for moisture (and thus higher yields) likely only because it had more snowfall last winter.

Photo (right): Combining oat plots at Fort St. John, late August 2012, about two weeks ahead of schedule due to an extra 167 Growing Degree Days over the 30 year average GDD.