B.C. GRAIN PRODUCERS ASSOCIATION

2011 FIELD CROP VARIETY PERFORMANCE

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BC Grain Producers Association

2011 Field Crop Variety Performance

BC Peace River Region

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Front cover photo

Field pea research plots in the foreground, flax plots in the middle, canola at back as seen in the third week of July, 2011 at the Fort St. John research farm. Note that there is still an unusual amount of blooming going on due to lots of moisture earlier in June and early July, 2011 (see pages 38-39 on amounts).

Front cover photo credit: Clair Langlois

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BC Grain Producers Association
2011 Field Crop Variety Performance
BC Peace River Region

Introduction, Acknowledgements, and Cautionary Notes

This report summarizes the *Field Crop Variety Performance Trials* that were conducted by the *Research Committee* of the *BC Grain Producers Association*, and is the result of funding and partnering with the following organizations:

Investment Agriculture Foundation of British Columbia – IAF
BC Peace River Grain Industry Development Council - BCPRGIDC

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 for their own certified seed-lot contributions, whom should all be recognized for their help with these trials and thus the results you see here. We thank 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; an invaluable influx of funds to the support of the research department. Special thanks also extended to the site cooperators who continue to generously give their support of the program, ***Vic Blanchette*** for the Fort St. John site, and ***School District 59*** for the use of the ***Hudson School Farm*** near Dawson Creek, BC**.** A further word of thanks goes out to ***Dennis Meier*** of Dawson Creek who continuously and generously offers us space on his adjacent farm for all our field equipment.

We should also thank our field and lab team whom once again helped to make this year yet another successful year. They are full-time technicians ***Satoru Nosho***, ***Brandi Smith***, and ***Michelle Whelpton*** whom all worked very hard and well together. Many thanks yet once again to ***Colleen Anderson*** for her help this time, in the review of this report. We extend a notice of thanks as well to all our part-time workers too numerous this season to list, but whom were invaluable in a year of increased workload (largest number of plots tested historically) and with all the heavy weeding pressures associated with the intense rainfall.

This document reports all tested materials grown during the 2011 growing season from performance trials placed at both the Dawson Creek and Fort St. John research farms, and as such the **data compiled in this report is derived from "head-to-head" comparisons only**. Materials not included in 2011, but which were previously tested, may now be viewed via earlier publications and are available for viewing or downloading at ***www.bcgrain.com***.

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 starting in 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**, as a variety may change position regarding both yield and maturity as additional results are obtained. This is simply the 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 the result will be, hence the association's steadfast efforts to procure multi-year data. By providing readers now with a separate "current year graph" for each crop-type, 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 are available with your product, be it seed or other product, always follow label directions.

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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 line 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. Agronomic information for the check variety has been bolded in all the tables 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 too, 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. Ultimately however, 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 too. 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 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 soils is not consistently reliable; making use of inoculant with seed is 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 and under these conditions, a low level of nodulation formation will be seen. Granular inoculant placed with the seed at plant was used on all pea-trials seen here 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 can be reduced under conditions of stress that impair emergence by increasing seeding rates.** 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.

For example, 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 did not show similar results upon conclusion. Initially our results did show 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 5 years of the project, results became less significant. Wheat was not tested.

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. Thus…

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

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

BC Grain Producers Association - 2011 Growing Conditions -

Our farming season started on the cool side with sufficient moisture, delaying planting by about a week from "normal", if one can still define what a "normal spring" is anymore. Good fortune occurred during planting with only a few interruptions from light rains and one significant wet snowfall, but all research plots made it into the ground prior to any significant deadlines commercial operations would face such as "crop insurance deadline" on canola. All crops emerged beautifully showing great prospects for a good crop year, however in mid-June until mid-July it all changed with heavy rains. Worst was at the Dawson Creek (DC) site but both DC and Fort St. John (FSJ) sites produced record breaking rainfall at this time. At one point the entire field at DC was under water for at least 24-36 hours. There were three such major rain events in 2011 over just three weeks, which delayed weed control from finishing or even starting (depending on the crop) and it caused significant root-rot in canola at the DC site. This root-rot eventually took its toll on over half of the canola trials at DC – fortunately without long-last affects however on those canola trials that make up the data in this publication. All other crop trials (and surviving canola trials) all seemed to pull through the flooding without any long-lasting affects and went on to produce incredibly high yields of high quality and with little to no lodging by harvest.

Harvest was of course delayed under this scenario as crops (all crops) just did not want to stop growing which put us all into the leaner daylight days of autumn with little heat to offer, morning fogs, and early evening dews, meaning a very late harvest as most producers can relate to. To our fortune however, a killing frost stayed away from both the DC and FSJ sites until well after Thanksgiving, a highly unusual event, but one that allowed harvest of all trials to finish up (however with encouragement from crop desiccation in most cases), and get any post-harvest site preparations to occur before the snow flew too. The real amazing thing through all this is that other than field peas, even with the higher than normal heights and heavy yields, lodging was a non-event.

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 BC 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**

Variety		Type	Dawson Creek 2011 Yield	Dawson Creek 2003-2011 Avg.	Dawson Creek Stn.Yrs.	Fort St.John 2011 Yield	Fort St.John 2003-2011 Avg.	Fort St.John Stn.Yrs.	B.C. Peace 2011 Yield	B.C. Peace 2003-2011 Avg.	B.C. Peace 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: above example is 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 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		
	2011	2003-2011	
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 2011

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

Crop	Fertilizer Applied	kg/ha	Placement	lbs actual/ac Recom. vs. Applied	Enviro-Test Labs N	$P_2 0_5$	K_2O	S
Canola	27-0-0-12	214	banded	Recommended* =	35	25	15	25
	6-26-30	55	banded	Actually applied =	57.7	26.7	14.7	22.9
	12-52-0	30	in-furrow					
Flax	27-0-0-12	214	top dressing	Recommended* =	40	30	15	15
	6-26-30	50	banded	Actually applied =	57.4	25.5	13.4	22.9
	12-52-0	30	in-furrow					
Cereals	34.5-0-0-0	95	banded	Recommended* =	0	32	15	10
	6-26-30	50	banded	Actually applied =	34.7	25.5	13.4	0
	12-52-0	30	in-furrow					
Peas	20-0-0-24	55	banded	Recommended* =	0	25	15	10
	6-26-30	50	banded	Actually applied =	15.7	25.5	13.4	11.8
	12-52-0	30	in-furrow					

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

Crop	Fertilizer Applied	kg/ha	Placement	lbs actual/ac Recom. vs. Applied	Enviro-Test Labs N	$P_2 0_5$	K_2O	S
Canola	27-0-0-12	214	banded	Recommended* =	35	25	15	25
	6-26-30	55	banded	Actually applied =	57.7	26.7	14.7	22.9
	12-52-0	30	in-furrow					
Flax	27-0-0-12	214	banded	Recommended* =	0	25	20	12
	6-26-30	50	banded	Actually applied =	57.4	25.5	13.4	22.9
	12-52-0	30	in-furrow					
Wheat & Barley	34.5-0-0-0	160	banded	Recommended* =	50	22	20	5
	6-26-30	50	banded	Actually applied =	54.4	25.5	13.4	0
	12-52-0	30	in-furrow					
Malt Barley & Oats	34-0-0-0	127	banded	Recommended* =	35	22	15	10
	6-26-30	50	banded	Actually applied =	44.4	25.5	13.4	0
	12-52-0	30	in-furrow					
Peas	20-0-0-24	55	banded	Recommended* =	0	20	15	12
	6-26-30	50	banded	Actually applied =	15.7	25.5	13.4	11.8
	12-52-0	30	in-furrow					

Recommended* = recommendations given by Enviro-Test Labs of Calgary, Alberta, calculated from soil samples pulled earlier in the spring of the same calendar year.

Pesticide Applications

Fort St. John, B.C.	Legal Description: SW19 Tp84 R18 W6		
Crop	**Date Applied**	**Product Used**	**Product Rate**
Canola	18-Jun-11	Muster (ethametsulfuron methyl)	12 g/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		Poast Ultra (sethoxydim)	200 ml/ac
		Merge	400 ml/ac
Field Peas	9-Jun-11	Sencor (metribuzin) 75%DF	77g/ac
		MCPA Sodium	190ml/ac
Flax	18-Jun-11	Buctril - M (bromoynil + MCPA)	400 ml/ac
Wheat, Barley, Oat	18-Jun-11	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)	11-Jun-11	Muster (ethametsulfuron methyl)	12 g/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		Poast Ultra (sethoxydim)	200 ml/ac
		Merge	400 ml/ac
Field Peas	8-Jun-11	Sencor (metribuzin) 75%DF	77 g/ac
		MCPA Sodium	190 ml/ac
	22-Jun-11	Assure II	200ml/ac
		Sure-Mix	6L/1000L H2O
Flax	13-Jun-11	Buctril-M (bromoynil + MCPA)	400 ml/ac
	22-Jun-11	Assure II	200ml/ac
		Sure-Mix	6L/1000L H2O
Malt Barley	22-Jun-11	Refine SG	12 g/ac
Oat		Ag Surf	2L/1000L H2O
		MCPA Ester	228ml/ac
Wheat, Barley, Trit	8-Jun-11	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	16-May-11	12	0.5 - 1 inch	15-Oct-11	desiccate/direct
	Flax	40	45	13-May-11	10	0.75 - 1 inch	19-Oct-11	desiccate/direct
	Barley	77	86	25-May-11	10	0.5 - 1 inch	19-Sep-11	desiccate/direct
	CWRS Wheat	90	101	25-May-11	10	0.5 - 1 inch	9-Oct-11	desiccate/direct
	CPS/CWES	90	101	25-May-11	10	0.5 - 1 inch	24-Oct-11	desiccate/direct
	Oats	81	90	25-May-11	10	0.5 - 1 inch	9-Oct-11	desiccate/direct
	Triticale	117	131	25-May-11	10	0.5 - 1 inch	24-Oct-11	desiccate/direct
	Peas	149	167	10-May-11	5	1 - 2 inch	8-Sep-11	desiccate/direct
DC	**Napus Canola**	8	8.9	15-May-11	10	0.5-1 inch	14-Oct-11	desiccate/direct
	Flax	40	45	12-May-11	7	0.5-1.25 inch	16-Oct-11	desiccate/direct
	Barley	77	86	21-May-11	11	0.5 - 1 inch	14-Sep-11	desiccate/direct
	CWRS Wheat	90	101	21-May-11	11	0.5 - 1 inch	7-Oct-11	desiccate/direct
	CPS/CWES	90	101	21-May-11	11	0.5 - 1 inch	20-Oct-11	desiccate/direct
	Oats	81	90	28-May-11	11	0.5 - 1.25 inch	8-Oct-11	desiccate/direct
	Triticale	117	131	21-May-11	11	0.5 - 1 inch	20-Oct-11	desiccate/direct
	Peas	149	167	11-May-11	8	0.5-1.25 inch	12-Sep-11	desiccate/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

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

Katepwa - check variety

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

* first year tested, very limited data available

** CWHWS Canadian Western Hard White Spring Wheat

Δ denotes materials not registered, very limited data available

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

Unity is a Wheat Midge Resistant variety

CWRS Wheat — Variety Descriptions

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

* first year tested, very limited data available

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

** CWHWS = Canadian Western Hard White Spring Wheat

XX = insufficient data

Δ denotes materials not registered, very limited data available

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

Average protein for **Katepwa** is **13 %**

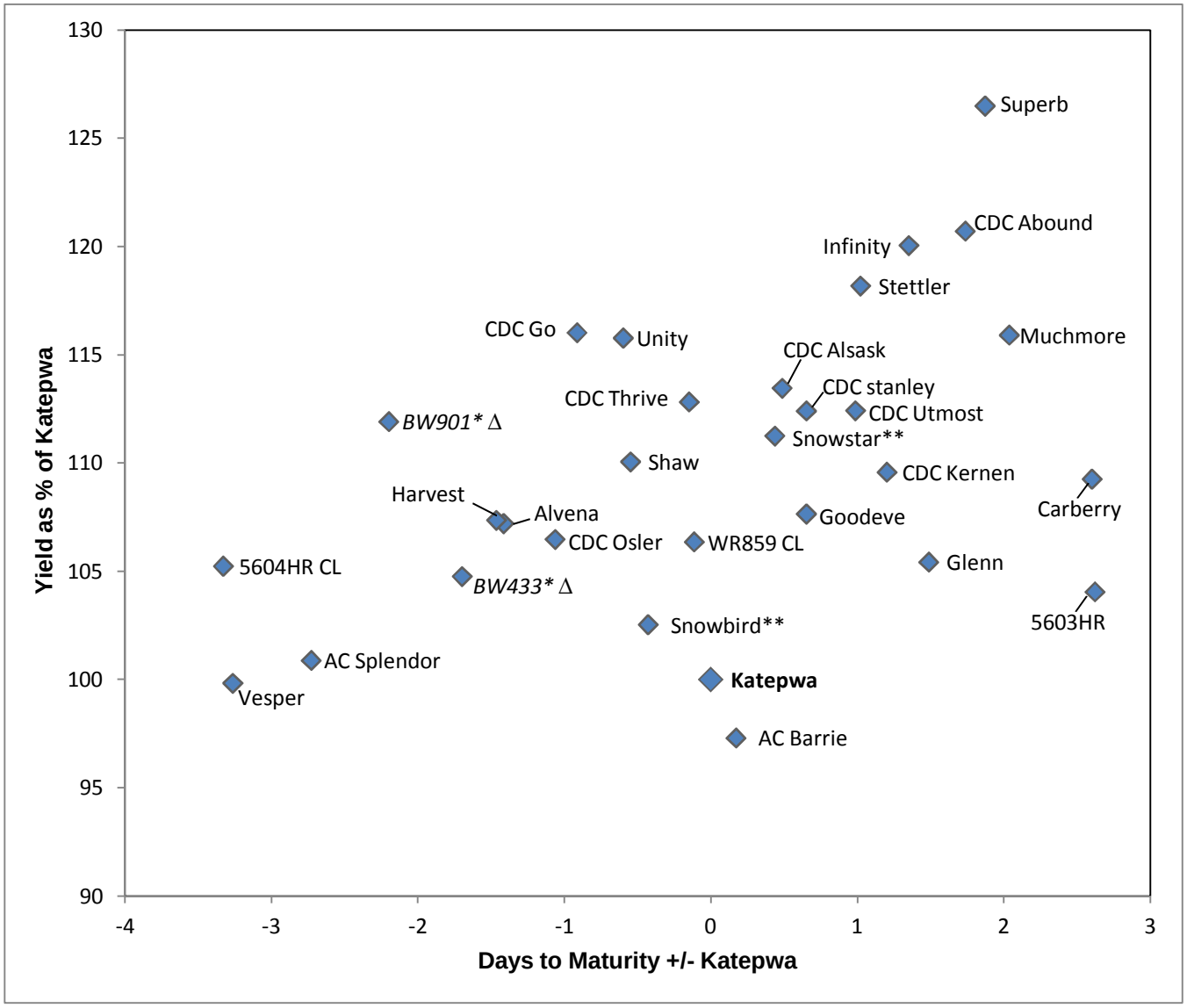
Unity is a Wheat Midge Resistant variety

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

■ Protected by Plant Breeders' Rights

Katepwa - check variety

CWRS Wheat	Regional Variety Performance	2011



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

* first year tested, very limited data available

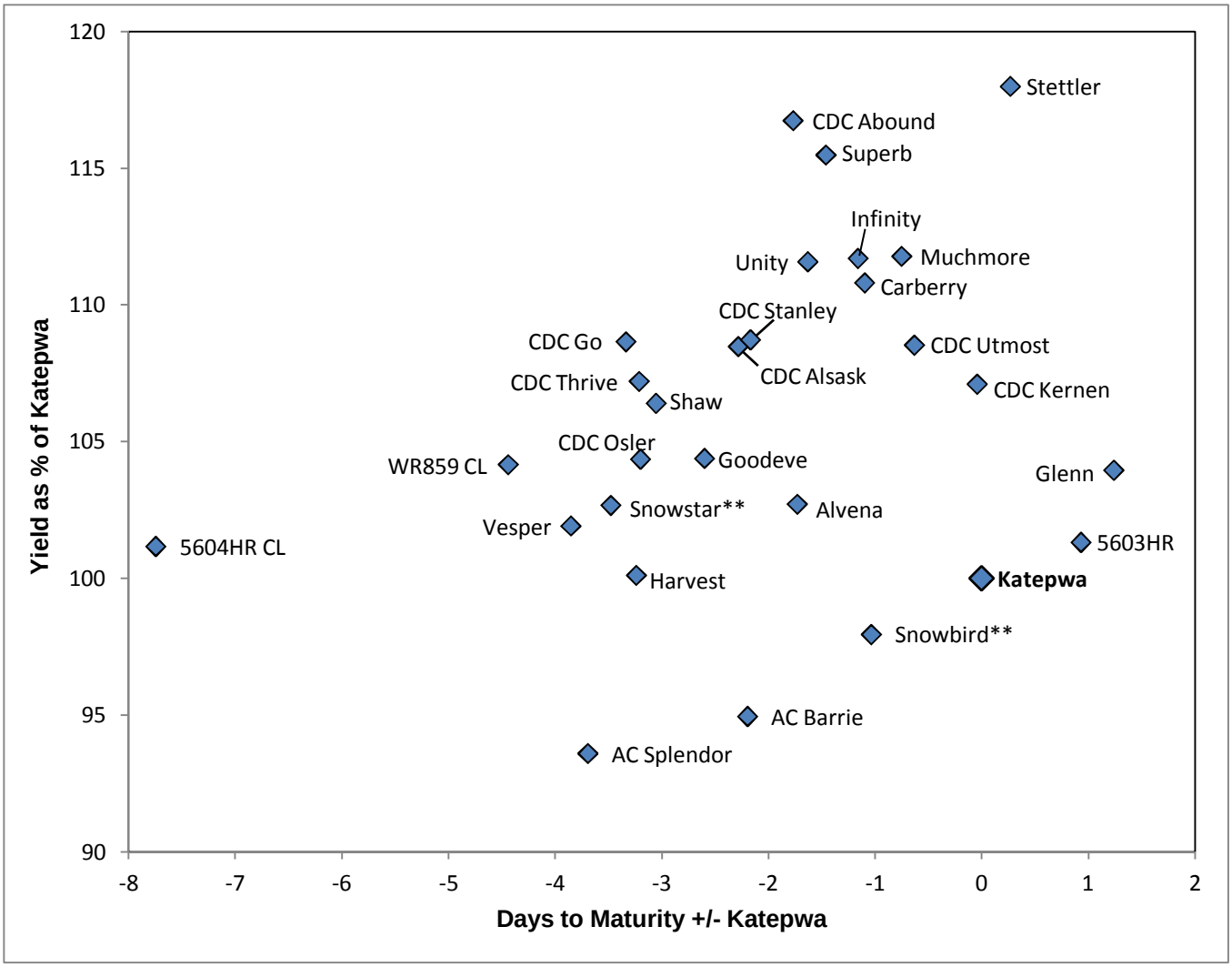
** CWHWS Canadian Western Hard White Spring Wheat

Δ denotes materials not registered, very limited data available

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

Unity is a Wheat Midge Resistant variety

CWRS Wheat	Regional Variety Performance	2006 -2011



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

** CWHWS Canadian Western Hard White Spring Wheat

CANADA PRAIRIE SPRING WHEAT

CANADA WESTERN SOFT WHITE SPRING WHEAT

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

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

CPS / CWSWS Wheat — Yield as % of 5700PR

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

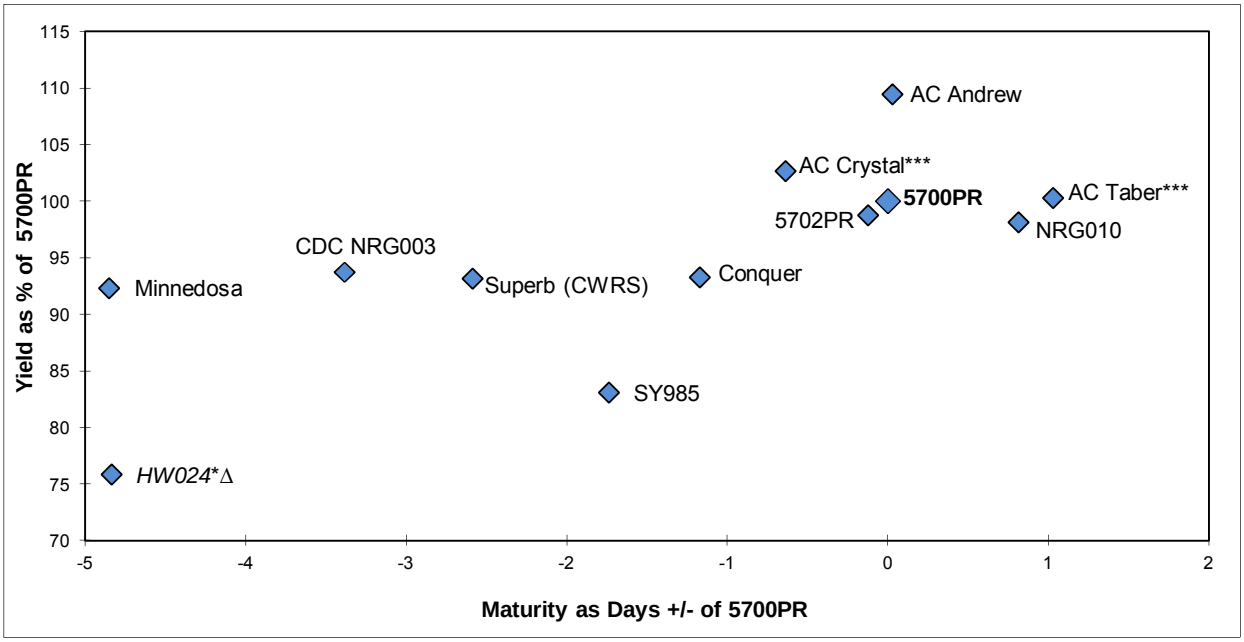
* first year tested, very limited data avaliable

Δ denotes materials not registered, very limited data available

*** denotes semi-dwarf stature

Conquer is a Varietal Blend

CPS / CWSWS Wheat — Regional Variety Performance 2011



Δ denotes materials not registered, very limited data available

Average maturity for **5700PR** is **122** days for **2011**

CPS / CWSWS Wheat — Variety Descriptions

B.C. Peace Averages 2006-2011 | Data from Alberta Agdex 100/32 Resistance to:

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

* first year tested, very limited data available

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

XX = insufficient data

5700PR - check variety

■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available

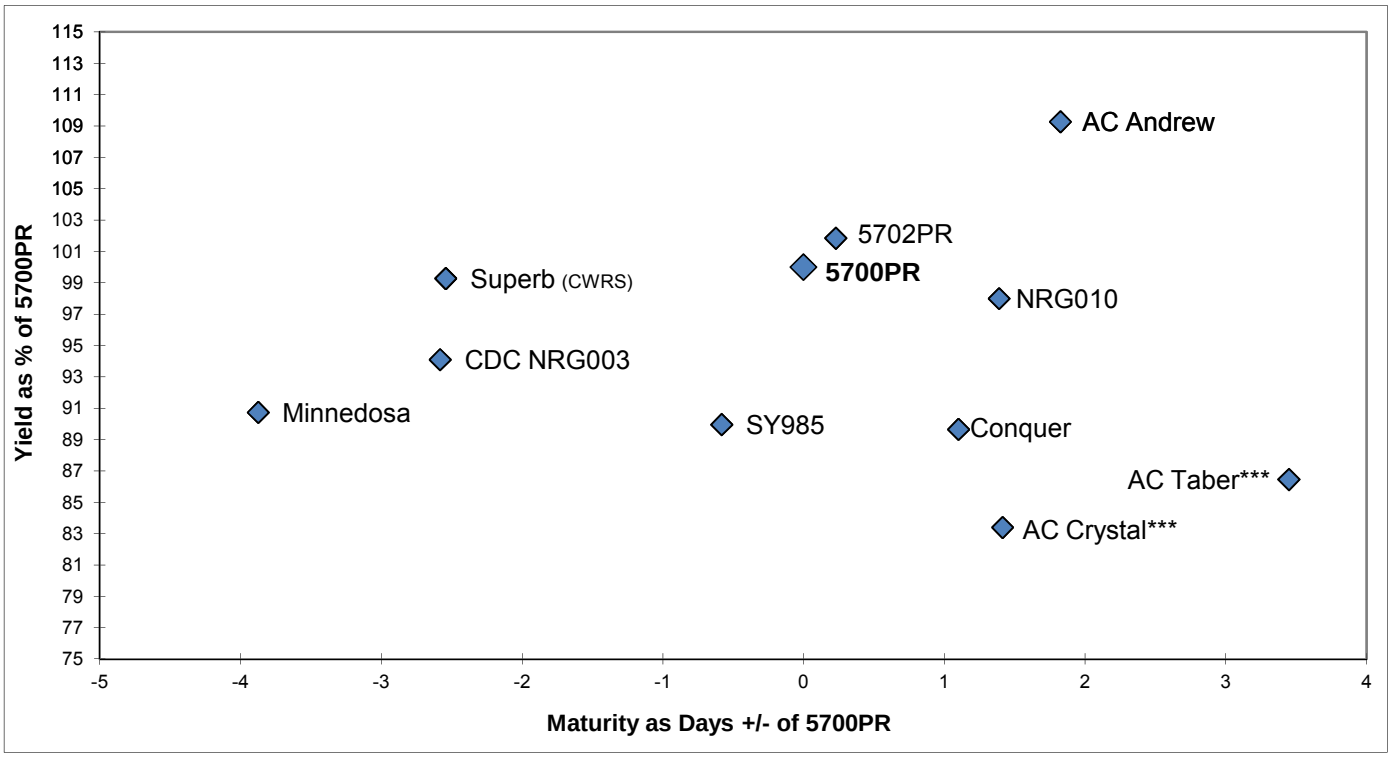
Overall average maturity for **5700PR** is **105** days.

*** denotes semi-dwarf stature

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

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

CPS / CWSWS Wheat — Regional Variety Performance — 2006-2011



DURUM WHEAT

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

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

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

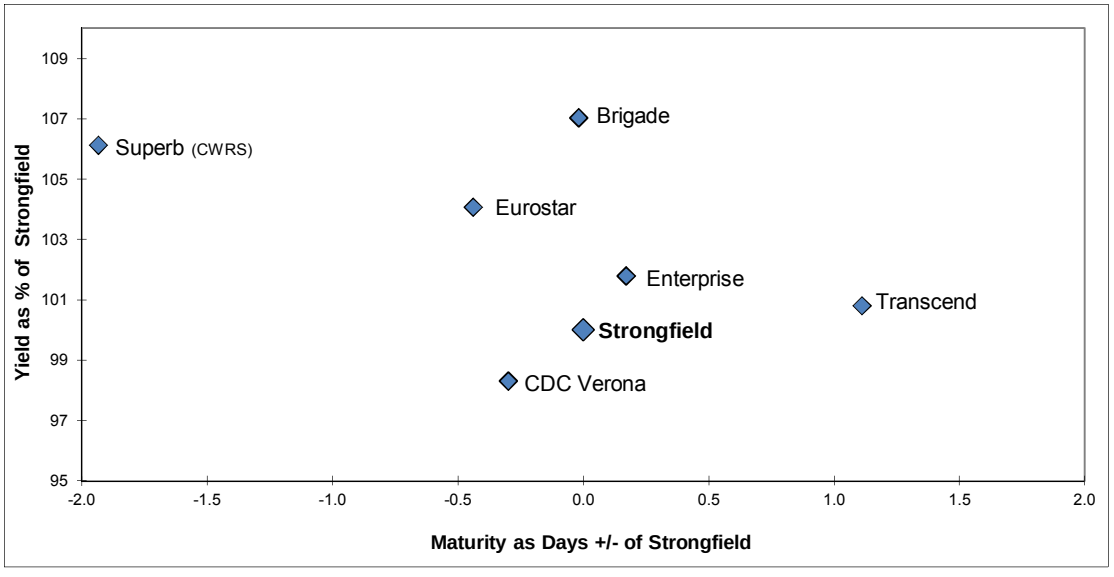
Durum Wheat — Yield as % of Strongfield

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

Δ denotes materials not registered, very limited data available

* first year tested, very limited data avaliable

Durum Wheat — Regional Variety Performance 2011



Δ denotes materials not registered, very limited data available

Average maturity for **Strongfield** is **127 days** for **2011**

Durum Wheat — Variety Descriptions

B.C. Peace Averages 2009-2011 | Data from Alberta Agdex 100/32 Resistance to:

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

* first year tested, very limited data available

Strongfield - check variety

■ Protected by Plant Breeders' Rights

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

XX = insufficient data

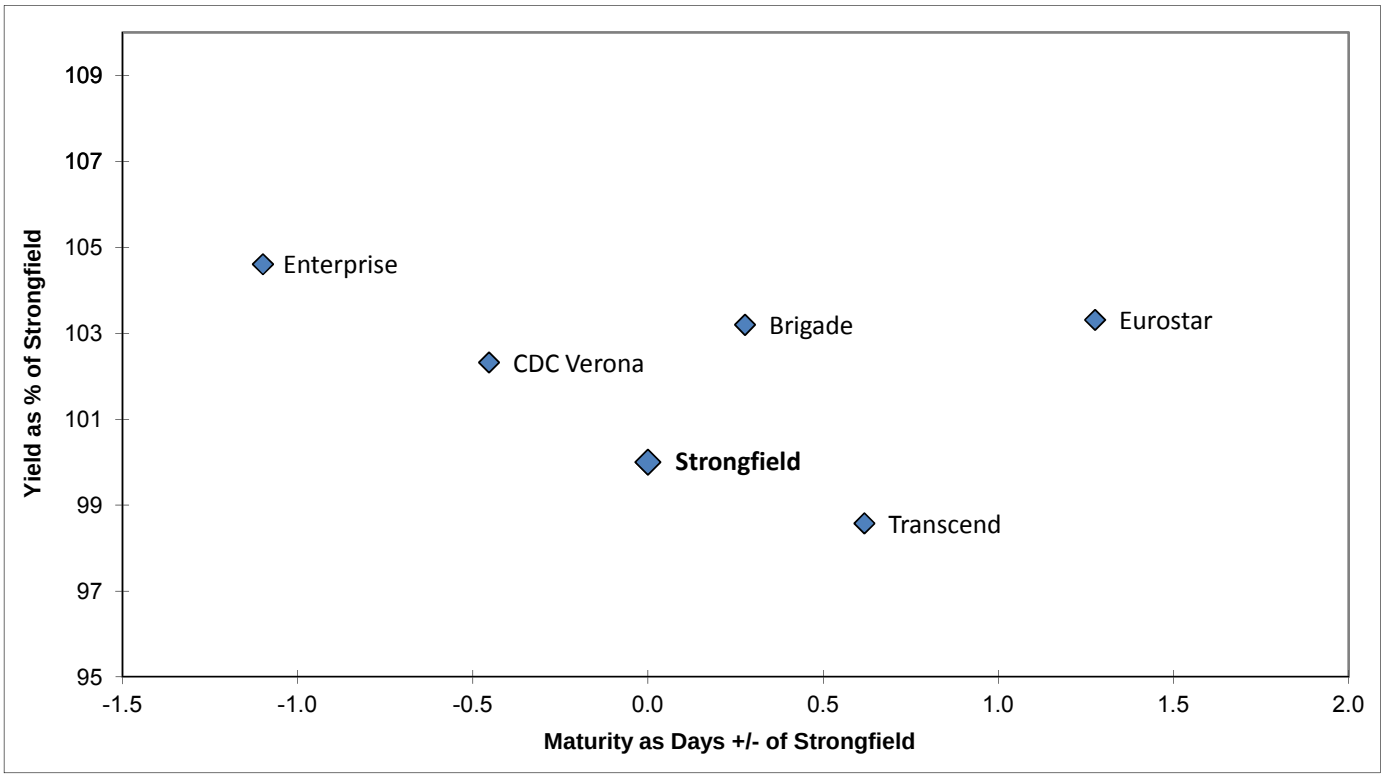
Δ denotes materials not registered, very limited data available

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

Overall average maturity for **Strongfield** is **111** days.

Overall average protein for **Strongfield** is **14.2 %**

Durum Wheat — Regional Variety Performance — 2009-2011



Barley

Six Row Barley

Yield as % of AC Metcalfe

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

Two Row Barley

Yield as % of AC Metcalfe

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

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

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 2006-2011 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 Tolerance	Distributor
	Eligible for General Purpose Grades Only													
	AC Albright	6 row	-7.6	77	52	1	[12]	XX	P	P	P	F	XX	SeCan
■	AC Lacombe	6 row	-1.3	74	50	-1	[12]	G	P	G	P	P	VP	SeCan
■	CDC Austenson	2 row	5.4	69	55	0	[8]	G	VP	VG	F	VP	F	SeCan
■	CDC Coalition	2 row	4.5	69	55	0	[10]	G	VG	VG	F	VP	F	Canterra Seeds
■	CDC Cowboy	2 row	4.9	91	55	1	[10]	F	P	G	F	P	G	SeCan
■	Champion	2 row	3.2	70	55	-1	[12]	G	VP	VG	XX	VP	F	Viterra
■	Chigwell	6 row	3.9	72	52	0	[8]	G	P	G	P	G	VP	SeCan
■	CONLON	2 row	-4.2	71	55	0	[12]	G	F	F	G	VP	G	Seed Depot Corp.
	*FB205** Δ	2 row	18.2	129	58	0	[2]	XX	XX	XX	XX	XX	XX	U of S
■	Gadsby	2 row	9.8	90	56	0	[4]	F	VG	VG	F	VG	F	SeCan
■	*Muskwa**	6 row	15.1	103	55	-3	[2]	XX	XX	XX	XX	XX	XX	SeedNet
■	Ponoka	2 row	5.9	71	55	0	[12]	G	VG	VG	F	G	P	SeCan
■	Sundre***	6 row	4.7	81	54	-1	[12]	G	P	VG	P	VG	VP	Mastin Seeds, AB
■	TR07728 Δ	2 row	4.6	77	56	0	[6]	XX	P	VG	G	P	F	Viterra
■	Trochu	6 row	-4.0	72	52	-1	[12]	G	P	G	G	F	F	SeCan
■	XENA	2 row	2.0	70	55	0	[12]	G	P	P	G	VP	G	Viterra
	Semi-dwarf varieties													
■	Vivar**	6 row	-1.0	70	51	-1	[12]	VG	F	VG	G	F	VP	SeCan
	Hulless varieties													
■	CDC Carter ¶	2 row	1.5	75	63	0	[6]	VG	VG	VG	VP	P	F	SeCan

Malt Barley

Variety Descriptions

	Variety	Type	B.C. Peace Averages 2006-2011 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 Tolerance	Distributor
■	**AC Metcalfe**	2 row	0.0	72	55	0	[24]	G	VG	F	F	VP	F	SeCan
■	Bentley	2 row	0.9	73	53	0	[8]	G	P	G	G	VP	P	Canterra Seeds
■	*CDC Anderson**	6 row	16.3	113	53	-2	[2]	XX	XX	XX	XX	XX	XX	SeCan
■	CDC ExPlus ¶	2 row	3.3	87	63	-1	[4]	VG	P	P	VG	VG	G	U of S
■	CDC Kindersley	2 row	2.9	86	56	0	[4]	G	VP	VG	F	VP	F	SeCan
■	CDC Mayfair	6 row	-3.8	69	51	0	[8]	G	VP	G	F	VP	P	Canterra Seeds
■	CDC Meredith	2 row	3.9	68	54	-1	[8]	G	VG	G	G	VP	F	SeCan
■	*CDC PolarStar**	2 row	11.1	118	57	-1	[2]	XX	XX	XX	XX	XX	XX	Canterra Seeds
■	CDC Reserve	2 row	-2.2	71	54	0	[8]	G	VP	P	F	P	P	SeCan
■	Celebration	6 row	1.6	90	53	0	[4]	VG	VG	VG	P	VP	P	Canterra Seeds
■	Cerveza	2 row	3.6	77	54	0	[6]	G	VG	VG	F	VP	F	Mastin Seeds, AB
	*HB08304** Δ ¶	2 row	15.2	121	65	-2	[2]	XX	XX	XX	XX	XX	XX	U of S
■	Major	2 row	3.1	74	54	0	[6]	G	VG	G	F	P	F	Viterra
■	Merit 57	2 row	5.4	72	55	-1	[10]	F	P	VP	F	P	G	Canterra Seeds
	Newdale	2 row	0.5	70	54	0	[12]	G	VP	G	G	P	F	FP Genetics
	Norman	2 row	-2.2	67	54	1	[6]	G	VP	VP	P	VP	G	FP Genetics
	Stellar-ND	6 row	-5.0	76	51	0	[10]	VG	G	G	F	P	F	Canterra Seeds

* first year tested, very limited data available

¶ denotes hulless seed types

■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available

AC Metcalfe - check variety

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

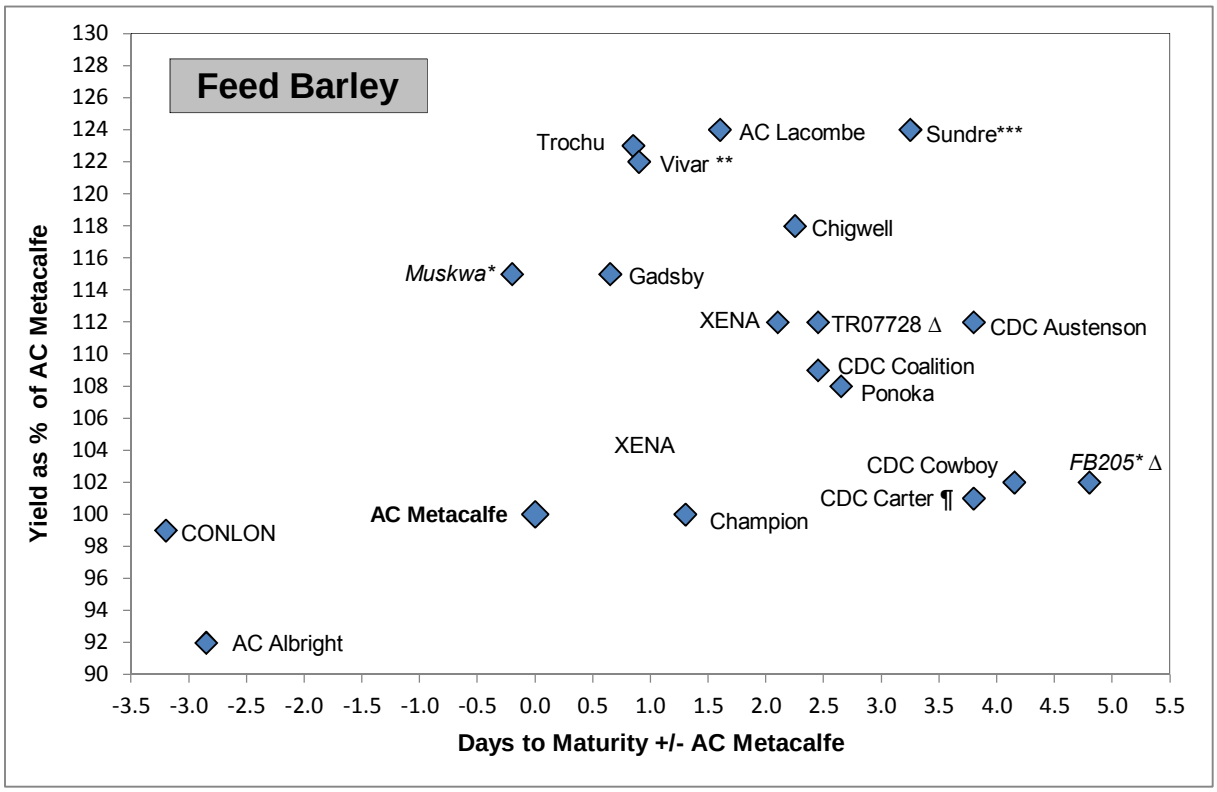
XX = insufficient data

Overall aversge maturity for **AC Metcalfe** is **93** days

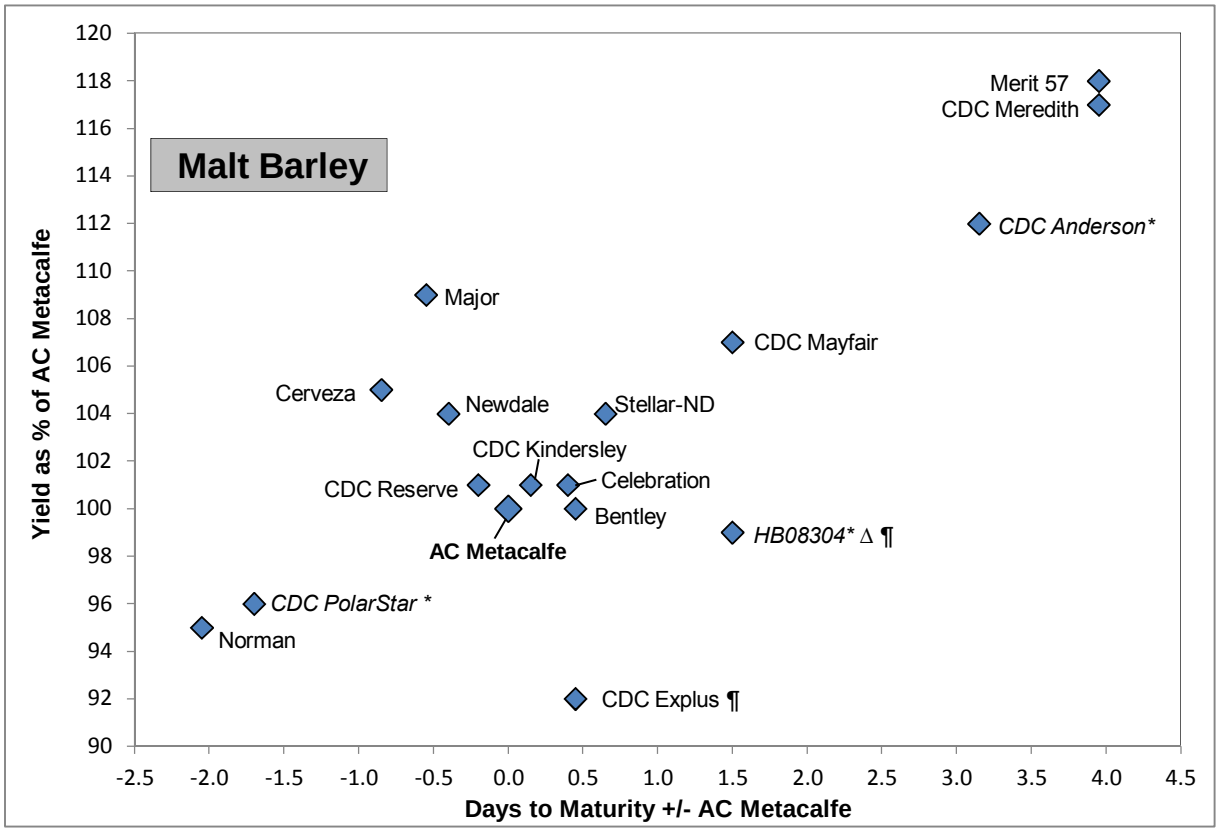
Overall average protein for **AC Metcalfe** is **13.7%**

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

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



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

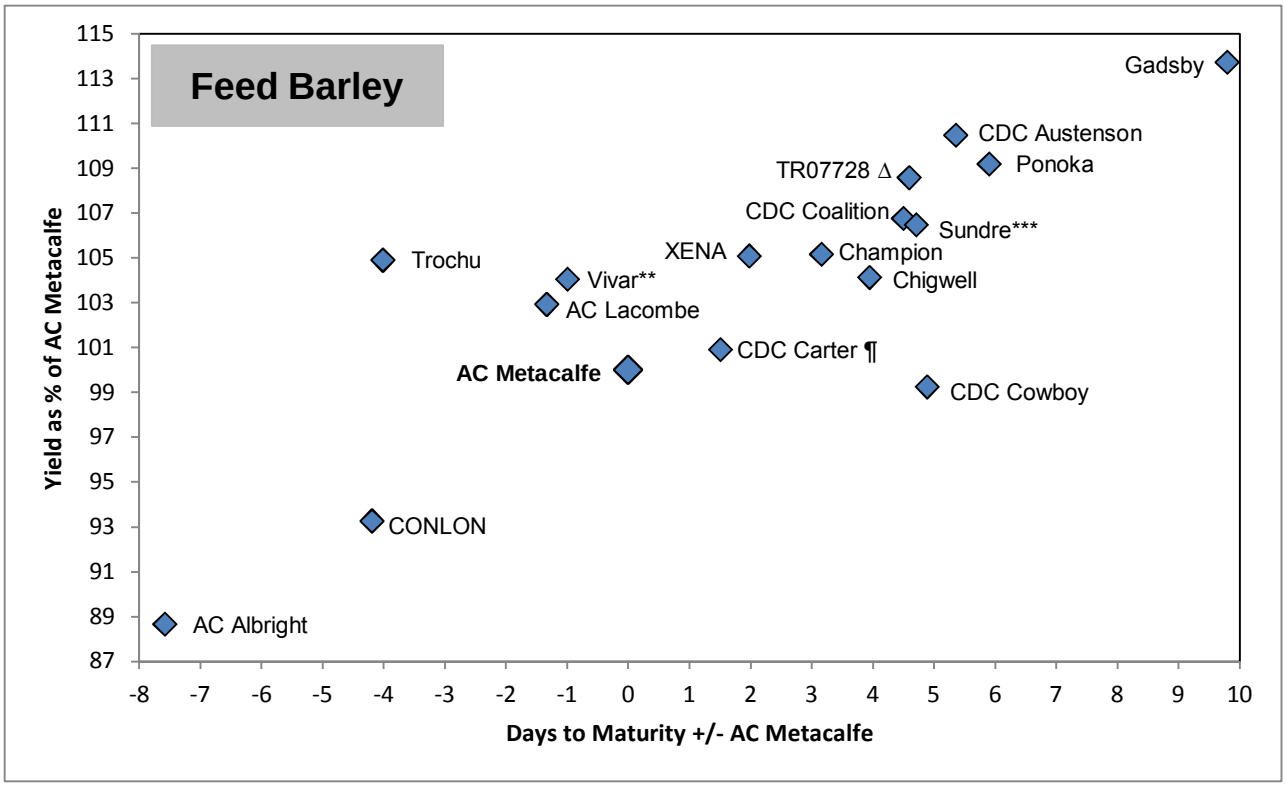


* first year tested materials

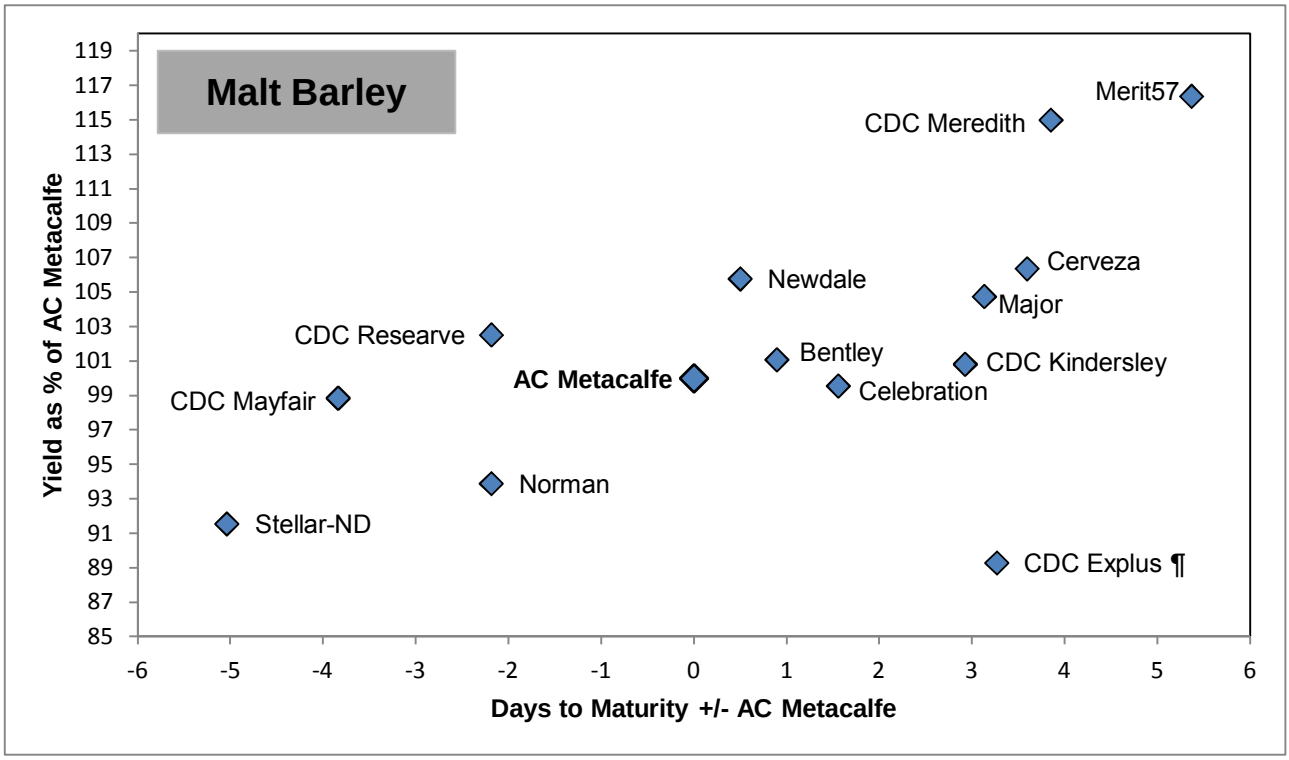
Δ denotes materials not registered

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

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



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



** semi-dwarf type

*** smooth-awned type

Δ denotes materials not registered

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

OAT

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

Oat — **Yield as % of CDC Dancer**

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

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

* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

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

Health Benefits Of Oat

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

Oat — Variety Descriptions

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

CDC Dancer - check variety

■ Protected by Plant Breeders' Rights

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

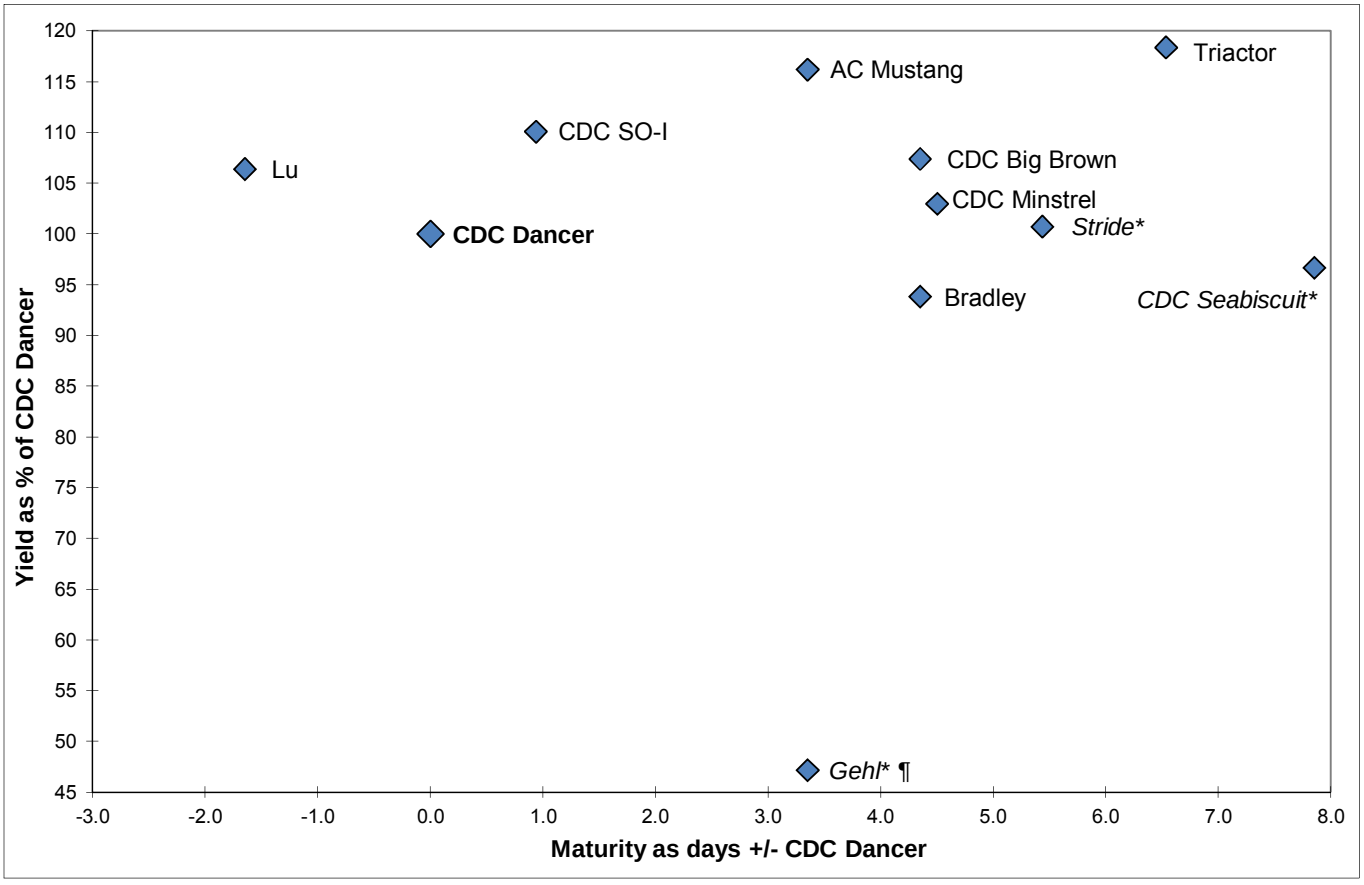
XX = insufficient data

* first year tested, very limited data available

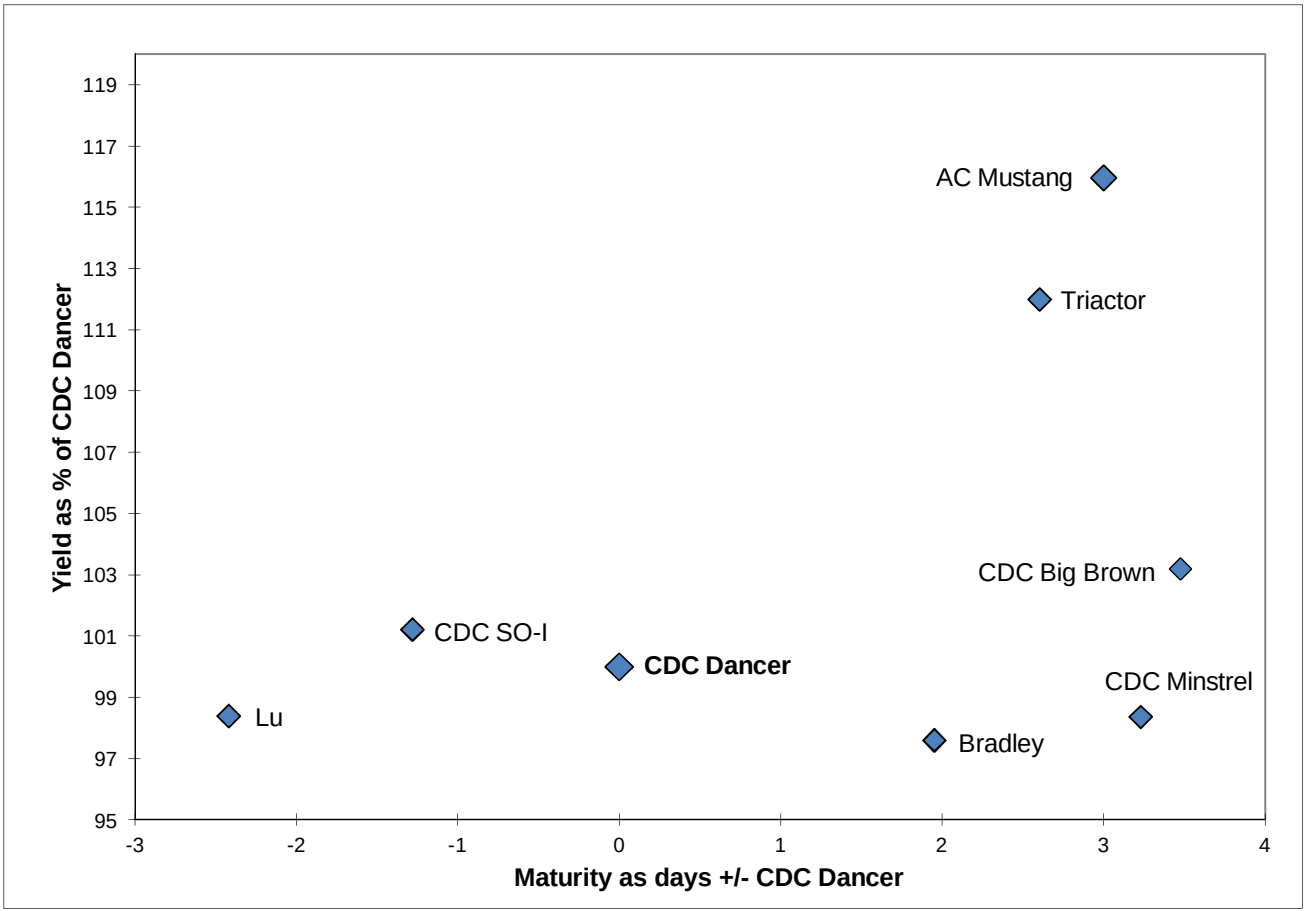
Δ denotes materials not registered, very limited data available

¶ denotes low pubescence hulless

Oat — Regional Variety Performance — 2011



Overall average maturity for **CDC Dancer** is **101** days for **2011**



Overall average maturity for **CDC Dancer** is **95** days

Oat for Feed

Oats are often sown to provide fodder in the form of silage or greenfeed. Oats will yield more silage or greenfeed per unit area than any other cereal crop. If managed properly, it can provide 3-4.5 tons of dry matter per acre, or more, of high quality feed containing up to 10 percent 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 Oat

It is believed by some farmers that one variety might be better than another because it appears "leafier"; however, tests on a number of varieties have shown very little variation in 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 Pronghorn

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

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

* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

Pronghorn - check variety

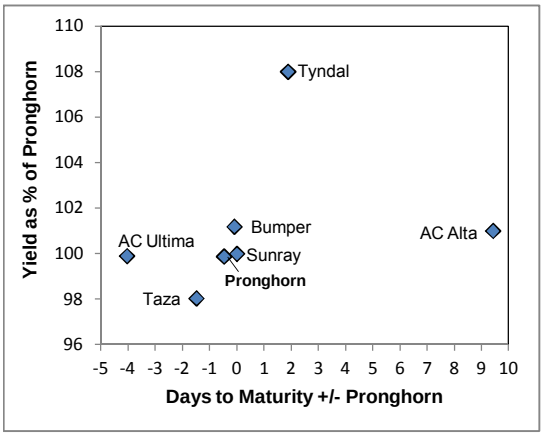
■ Protected by Plant Breeders' Rights

Spring Triticale — Variety Descriptions

	Maturity as days +/- check	Height (cm)	Bushel Weight (lbs/bus)	TKW (g / 1000)	Alberta Agdex 100/32 Resistance to: Lodging	Loose Smut	Common Bunt	Sprouting	FHB	Distributor
AC Alta	9.4	81	55	51						Progressive Seeds
AC Ultima	-4.0	85	58	45	G	VG	VG	F	F	FP Genetics
*Brevis**	1.9	110	63	51	XX	XX	XX	XX	XX	Wagon Wheel Seed Corp.
■ Bumper	-0.1	82	60	45	VG	XX	VG	F	P	SeCan
Pronghorn	0.0	87	57	44	G	VG	VG	F	G	Progressive Seeds
Sunray	-0.5	93	58	45	VG	VG	VG	F	VP	SeedNet
■ Taza	-1.5	103	58	46	XX	XX	VG	XX	VP	Solick Seeds
■ Tyndal	1.9	87	58	44	G	VG	VG	P	P	SeCan

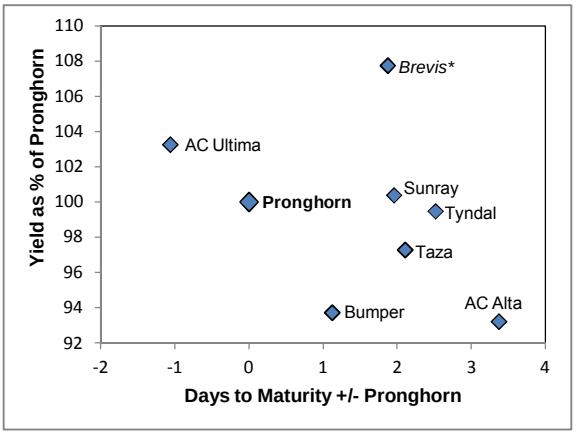
VG= very good, G = good, F = fair, P = poor, VP = very poor; XX = insufficient data

Regional Variety Performance 2006-2011



Average long-term maturity for **Pronghorn** is **111** days

Regional Variety Performance 2011

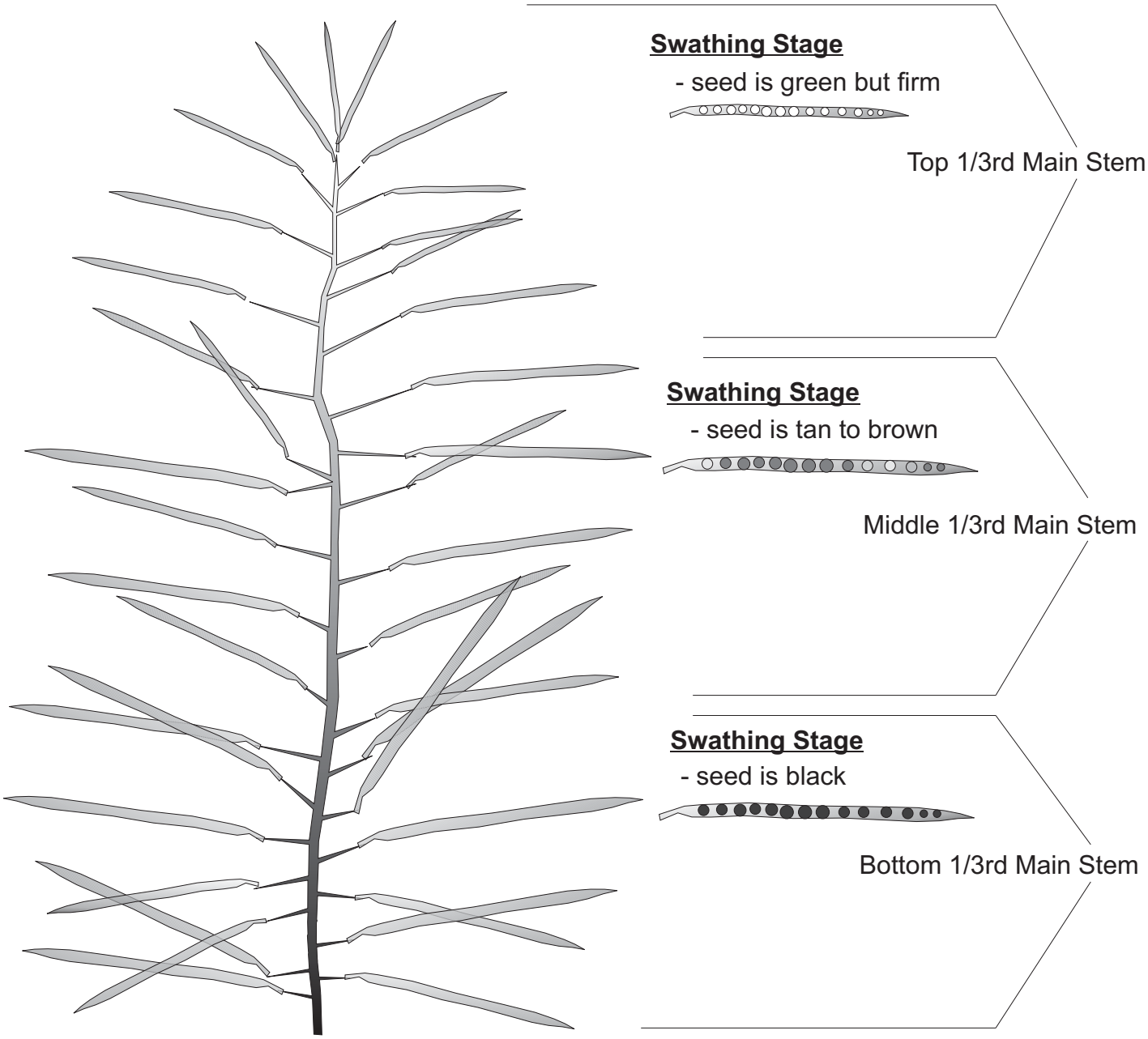


Average maturity for **Pronghorn** is **121** days for **2011**

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.



Crop Pest Status in the BC Peace Region

Continuing Good News from 2011 is that clubroot of canola has NOT been found in the BC Peace. Soil samples have been examined using the sensitive PCR test (for DNA) at the BC Min. of Agriculture Plant Diagnostic lab. There is no indication that BC canola fields have been contaminated. In spite of progress in plant breeding of a variety 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 2011can be seen at the following link http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/prm13443) but clubroot could easily be transferred from there to here, with a little bit of soil. It may be a good idea for you as a landowner having energy or construction equipment visiting (perhaps for pipeline work), to get an agreement that the equipment be cleaned prior to it coming on to your property. Check out the problem on the Internet: Alberta Clubroot Management Plan http://www1.agric.gov.ab.ca/$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.

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: the hawkweeds. They have flowers and seeds like dandelions, but they 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. Get more information at http://www.invasiveplantcouncilbc.ca/publications/TIPS/Invasive_Hawkweeds_TIPS.pdf or ask for a poster at the Agriculture office. The NorthEast Invasive Plant Committee NEIPC with your help is working hard to keep these and other species out of the region.

The BC Peace region may not usually be an especially bad place for insect damage to canola crops, but since insecticide treatments can make the difference between a positive and a negative financial margin, and untreated insect pests in a particular year can be even more costly, it is worth knowing the players and the risks. Further information is available from agriculture service suppliers (id. booklets), and on websites such as Canola Council's "canola watch" http://www.canola-council.org/canola_watch.aspx 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.

Contact the BC Ministry of Agriculture office if you want more information about monitoring for or controlling these pests, or for other available programs like farm business planning. Kerry.clark@gov.bc.ca *Agrologist*

Argentine Canola

Yield as % of 45H21

Variety	Type	Dawson Creek 2011 % of check	Dawson Creek 2006-2011 Avg. (%)	Dawson Creek 2006-2011 Stn. Yrs.	Fort St. John 2011 % of check	Fort St. John 2006-2011 Avg. (%)	Fort St. John 2006-2011 Stn. Yrs.	B.C. Peace 2011 Avg. (%)	B.C. Peace 2006-2011 Avg. (%)	B.C. Peace 2006-2011 Stn. Yrs.
*1950**	Roundup Ready®	97	97	[1]	91	91	[1]	94	94	[2]
32-75	Roundup Ready®	81	82	[3]	72	87	[3]	77	85	[6]
43A56	Roundup Ready®	92	88	[3]	76	82	[3]	84	85	[6]
43E01	Roundup Ready®	94	97	[2]	98	96	[2]	96	96	[4]
45H21	Roundup Ready®	100	100	[11]	100	100	[12]	100	100	[23]
45H28	Roundup Ready®	108	106	[2]	109	109	[2]	108	108	[4]
45H29***	Roundup Ready®	116	114	[2]	110	111	[2]	113	113	[4]
*45H31**	Roundup Ready®	107	107	[1]	111	111	[1]	109	109	[2]
*45S51**	Roundup Ready®	105	105	[1]	103	103	[1]	104	104	[2]
*45S52**	Roundup Ready®	109	109	[1]	109	109	[1]	109	109	[2]
*6040 RR**	Roundup Ready®	99	99	[1]	91	91	[1]	95	95	[2]
*73-35 RR**	Roundup Ready®	88	88	[1]	88	88	[1]	88	88	[2]
*73-55 RR**	Roundup Ready®	95	95	[1]	91	91	[1]	93	93	[2]
Café	Roundup Ready®	87	91	[4]	75	86	[4]	81	89	[8]
D3151	Roundup Ready®	96	101	[2]	89	97	[3]	92	99	[5]
*D3153**	Roundup Ready®	101	101	[1]	108	108	[1]	104	104	[2]
*Fusion**	Roundup Ready®	100	100	[1]	101	101	[1]	101	101	[2]
VR 9350 G	Roundup Ready®	90	96	[2]	98	95	[2]	94	96	[4]
VR 9553 G	Roundup Ready®	98	103	[2]	97	103	[2]	98	103	[4]
*VT 500 G**	Roundup Ready®	96	96	[1]	98	98	[1]	97	97	[2]
*VT Remarkable**	Roundup Ready®	105	105	[1]	103	103	[1]	104	104	[2]
5020	LibertyLink®	109	103	[9]	101	102	[9]	105	103	[18]
8440	LibertyLink®	127	109	[3]	109	111	[3]	118	110	[6]
*L130**	LibertyLink®	127	127	[1]	107	107	[1]	117	117	[2]
*L150**	LibertyLink®	132	132	[1]	117	117	[1]	124	124	[2]
46A65	Conventional	78	90	[6]	69	82	[6]	73	86	[12]
Peace	Conventional	75	81	[4]	71	69	[4]	73	75	[8]
5525 CL	Clearfield®	101	102	[3]	94	98	[3]	97	100	[6]
*5535 CL**	Clearfield®	96	96	[1]	97	97	[1]	96	96	[2]

45H21 - check variety

* caution, first year tested and or very limited data available

∆ = not currently registered

** specialty oil

*** Club-root Resistance

Note: "System Varieties" (Clearfield®, Roundup Ready®, or LibertyLink®) are grown together in with "conventional" Argentine varieties (actually as two napus trials per site with a common check) and thus conventional herbicides are used for weed control. (See page 6 for herbicides used). However, combining the two trials to produce the chart above means statistical analysis cannot be shown for the entire group. Coefficient of Variance (CV) values of the napus trials for 2011 were as follows: DC = 10.03, 4.99 FSJ = 9.85, 7.62

Argentine Canola

Variety Descriptions

Variety	Type	Herbicide Tolerance	B.C. Peace Avg. Days to Swathing[1] as +/- check 2011	B.C. Peace Avg. Days to Swathing[1] as +/- check 2006-2011	Blackleg Rating (Various info.)	Distributor
*1950**	HYB	Roundup Ready®	0.5	0.5	MR	Canterra Seeds
■ 32-75	OP	Roundup Ready®	-0.5	0.3	R	Monsanto
■ 43A56	OP	Roundup Ready®	-1.8	-1.9	MR	Pioneer Hi-Bred
43E01	HYB	Roundup Ready®	-1.0	-2.8	MR	Pioneer Hi-Bred
45H21	HYB	Roundup Ready®	0.0	0.0	R	Pioneer Hi-Bred
45H28	HYB	Roundup Ready®	0.8	0.1	R	Pioneer Hi-Bred
45H29 ***	HYB	Roundup Ready®	0.0	0.8	R	Pioneer Hi-Bred
*45H31**	HYB	Roundup Ready®	0.0	0.0	R	Pioneer Hi-Bred
*45S51**	HYB	Roundup Ready®	0.0	0.0	R	Pioneer Hi-Bred
45S52*	HYB	Roundup Ready®	0.5	0.5	MR	Pioneer Hi-Bred
*6040 RR**	HYB	Roundup Ready®	0.3	0.3	R	BrettYoung
*73-35 RR**	HYB	Roundup Ready®	-0.5	-0.5	R	Monsanto
*73-55 RR**	HYB	Roundup Ready®	-0.5	-0.5	R	Monsanto
■ Café	OP	Roundup Ready®	-1.0	-1.3	R	SeCan
D3151	HYB	Roundup Ready®	-0.3	-0.1	MR	Pioneer Hi-Bred
*D3153**	HYB	Roundup Ready®	1.0	1.0	R	Pioneer Hi-Bred
*Fusion**	HYB	Roundup Ready®	0.5	0.5	R	SeCan
VR 9350 G	HYB	Roundup Ready®	-1.3	-1.9	MR	Viterra
VR 9553 G	HYB	Roundup Ready®	0.3	0.9	R	Viterra
*VT 500 G**	HYB	Roundup Ready®	0.0	0.0	R	Viterra
*VT Remarkable**	SYN	Roundup Ready®	0.3	0.3	R	Viterra
5020	HYB	LibertyLink®	0.4	-0.2	R	Bayer Crop Science
8440	HYB	LibertyLink®	0.5	0.7	R	Bayer Crop Science
*L130**	HYB	LibertyLink®	0.0	0.0	R	Bayer Crop Science
*L150**	HYB	LibertyLink®	0.5	0.5	R	Bayer Crop Science
■ 46A65	OP	conventional	1.3	2.4	R	Pioneer Hi-Bred
■ Peace	OP	conventional	-2.0	-2.8	MR	Viterra
5525 CL	HYB	Clearfield®	0.0	3.3	R	BrettYoung
*5535 CL**	HYB	Clearfield®	0.5	0.5	R	BrettYoung

■ 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

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

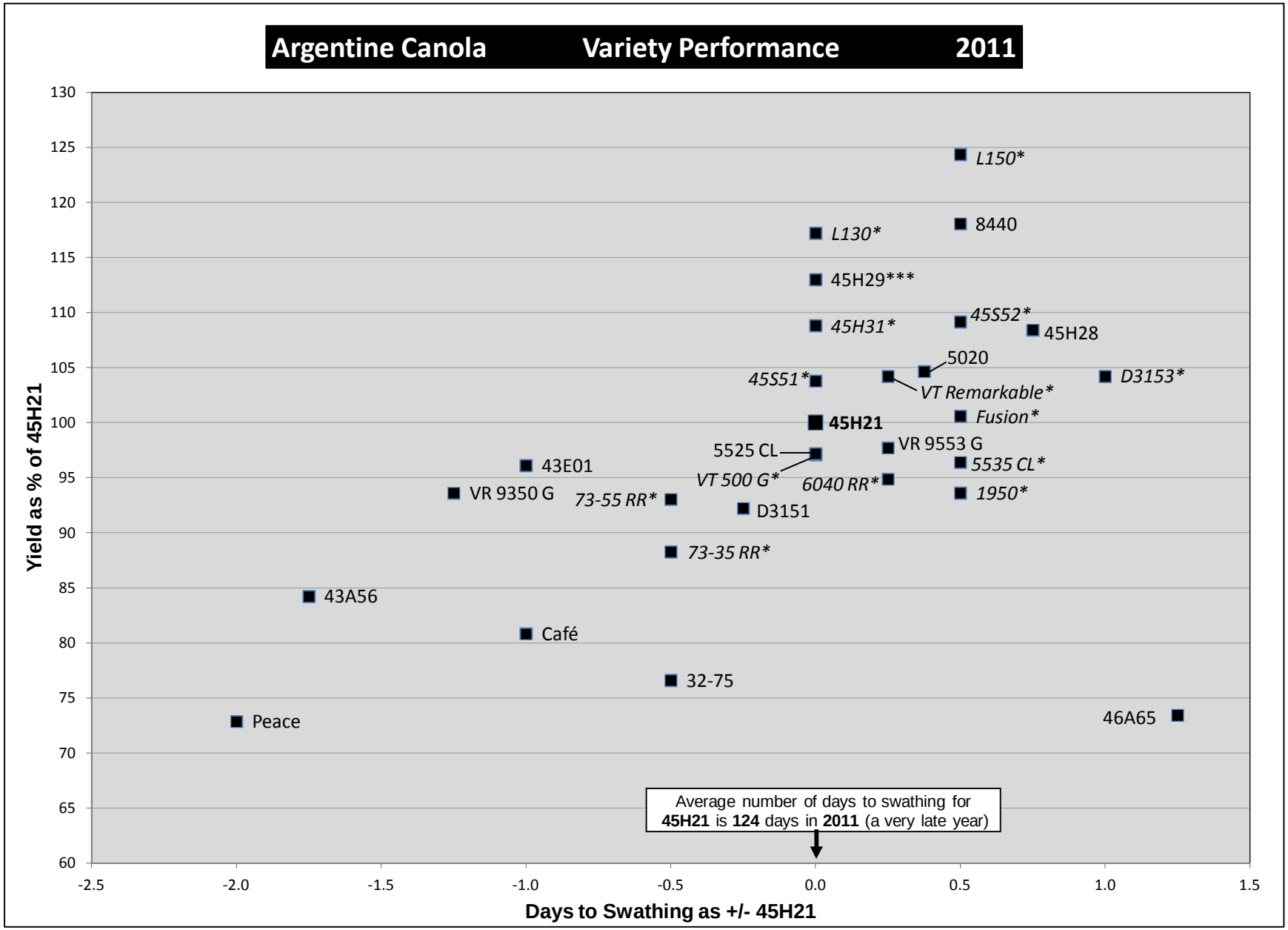
Average 'days to swathing' for **45H21** is **124** days for **2011**

Overall average 'days to swathing' for **45H21** is **109** days

Δ = not currently registered

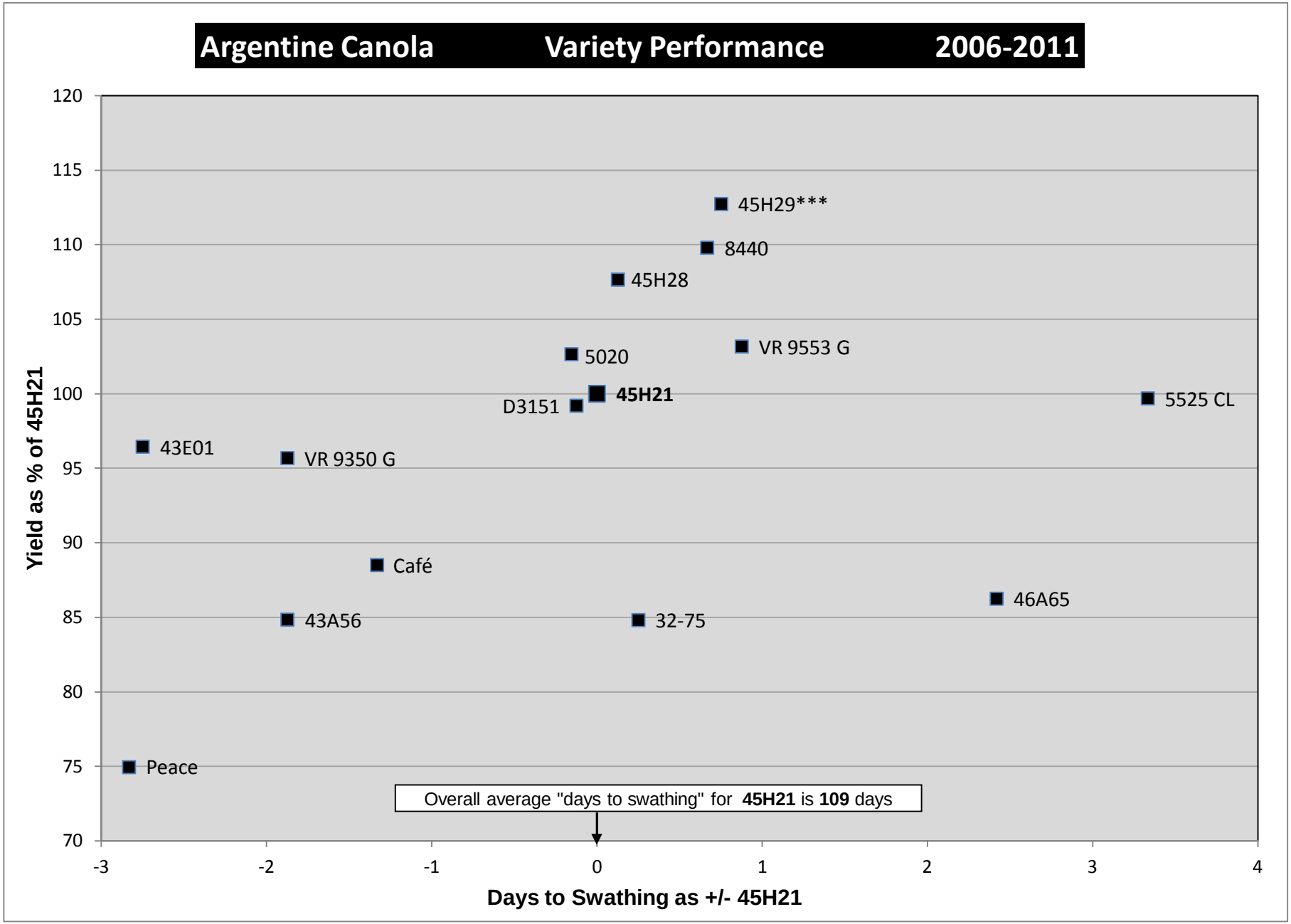
** specialty oil

*** Club-root Resistance



*** Club-root Resistance

* 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.

Canola Performance Trial (CPT) — B.C. Peace Sites — 2011

Variety	Type	Herbicide Tolerance	Dawson Creek 2011 YIELD bu/ac	Dawson Creek 2011 Maturity Days to	Fort St. John 2011 YIELD bu/ac	Fort St. John 2011 Maturity Days to	B.C. Peace 2011 Avg. YIELD bu/ac	B.C. Peace 2011 Avg. Maturity Days to	Distributor
Clearfield® herbicede tolerant system									
5525CL	HYB	Clearfield®	98 a-d	122.5	67 b-g	123.2	83	122.8	Brett Young
VR 9560 CL	HYB	Clearfield®	106 abc	122.3	72 abc	122.2	89	122.3	Pioneer Hi-Bred
LibertyLink® herbicede tolerant system									
5440	HYB	LibertyLink®	107 abc	123.0	73 ab	121.8	90	122.4	Bayer CropScience
5770	HYB	LibertyLink®	107 abc	124.7	73 ab	123.5	90	124.1	Bayer CropScience
L150	HYB	LibertyLink®	107 abc	124.2	76 a	123.3	92	123.8	Viterra
L130	HYB	LibertyLink®	109 ab	123.0	71 a-e	121.8	90	122.4	Viterra
L170S	HYB	LibertyLink®	97 a-d	124.0	60 fg	122.8	78	123.4	Bayer CropScience
L154	HYB	LibertyLink®	100 a-d	123.7	68 b-g	123.0	84	123.3	Bayer CropScience
Roundup Ready® herbicede tolerant system									
6060 RR	HYB	Roundup Ready®	113 a	123.7	69 a-e	124.2	91	123.9	Brett Young
1970	HYB	Roundup Ready®	108 abc	123.8	67 b-g	123.7	87	123.8	Canterra Seeds
v1040 **	HYB	Roundup Ready®	105 abc	124.8	68 a-f	123.5	86	124.2	Cargill
V12-1 **	HYB	Roundup Ready®	104 abc	123.8	72 a-d	123.7	88	123.8	Cargill
94H04	HYB	Roundup Ready®	95 bcd	121.8	59 g	122.5	77	122.2	FP Genetics
73-45 RR	HYB	Roundup Ready®	99 a-d	121.8	64 b-g	122.3	81	122.1	Monsanto
73-55 RR	HYB	Roundup Ready®	95 bcd	121.7	66 b-g	122.3	81	122.0	Monsanto
73-75 RR	HYB	Roundup Ready®	97 a-d	123.0	65 b-g	122.3	81	122.7	Monsanto
72-65 RR	HYB	Roundup Ready®	99 a-d	124.3	62 efg	124.0	81	124.2	Monsanto
Fusion	HYB	Roundup Ready®	92 cd	122.8	63 d-g	122.8	77	122.8	SeCan
VT 510 G	HYB	Roundup Ready®	91 cd	123.3	59 fg	122.5	75	122.9	Viterra
VR 9559 G	HYB	Roundup Ready®	105 abc	122.8	67 b-g	123.2	86	123.0	Pioneer Hi-Bred
73-15 RR	HYB	Roundup Ready®	87 d	122.0	63 c-g	121.7	75	121.8	Monsanto
'LSD (P=.05)			9.62		5.29				
'Standard Deviation			6.80		3.74				
'CV			6.75		5.6				

■ 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

*** 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

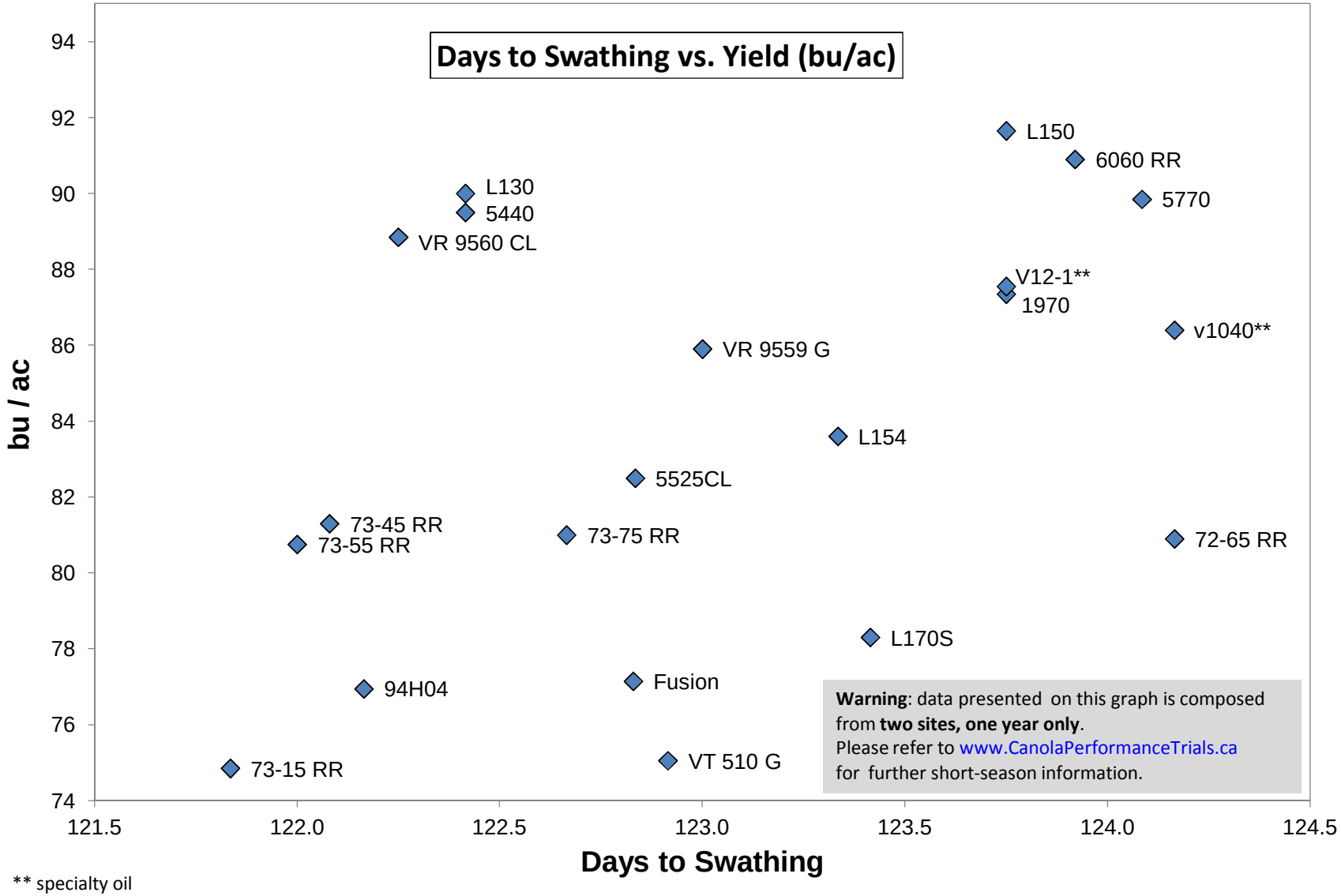
The following description of the CPT trials provided by: **seed.ab.ca**, Winter 2011 publication.

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 2012. The post-registration Canola Performance Trial (CPT) testing in 2011 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 2011 is not considered comparable to previous trials.

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

Canola Performance Trial (CPT) B.C. Peace Sites 2011



** specialty oil

FIELD PEAS

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

Variety	**Designated Powdery Mildew Resistant	Dawson Creek 2011 Yield bus / acre		Dawson Creek 2011 Yield % of check	Dawson Creek 2006-2011 Avg. (%)	Dawson Creek 2006-2011 Stn. Yrs.	Fort St. John 2011 Yield bus / acre		Fort St. John 2011 Yield % of check	Fort St. John 2006-2011 Avg. (%)	Fort St. John 2006-2011 Stn. Yrs.	B.C. Peace 2011 Avg. (%)	B.C. Peace 2006-2011 Avg. (%)	B.C. Peace 2006-2011 Stn. Yrs.
CDC Patrick	VG	103	b	95	96	[4]	97	ab	97	102	[4]	96	99	[8]
*CDC Pluto**	VG	118	a	109	109	[1]	96	ab	97	97	[1]	103	103	[2]
*CDC Raezer**	VG	108	ab	100	100	[1]	90	ab	91	91	[1]	95	95	[2]
CDC Striker	VG	105	ab	97	84	[6]	91	ab	91	99	[6]	94	92	[12]
*CDC Tetris**	VG	110	ab	101	101	[1]	94	ab	95	95	[1]	98	98	[2]
Cooper	VG	108	ab	100	100	[6]	100	ab	100	100	[6]	100	100	[12]
Cutlass	VG	118	a	109	99	[4]	106	a	106	107	[4]	108	103	[8]
Mendel	VG	102	b	95	91	[4]	89	b	89	94	[4]	92	93	[8]
MP1867 Δ	VG	99	b	92	90	[2]	88	b	88	91	[2]	90	91	[4]
*MP1880** Δ	VG	113	ab	104	104	[1]	95	ab	95	95	[1]	100	99	[2]
LSD (P=.05) =		8.64					10.08							
CV value (%) =		5.49					7.34							

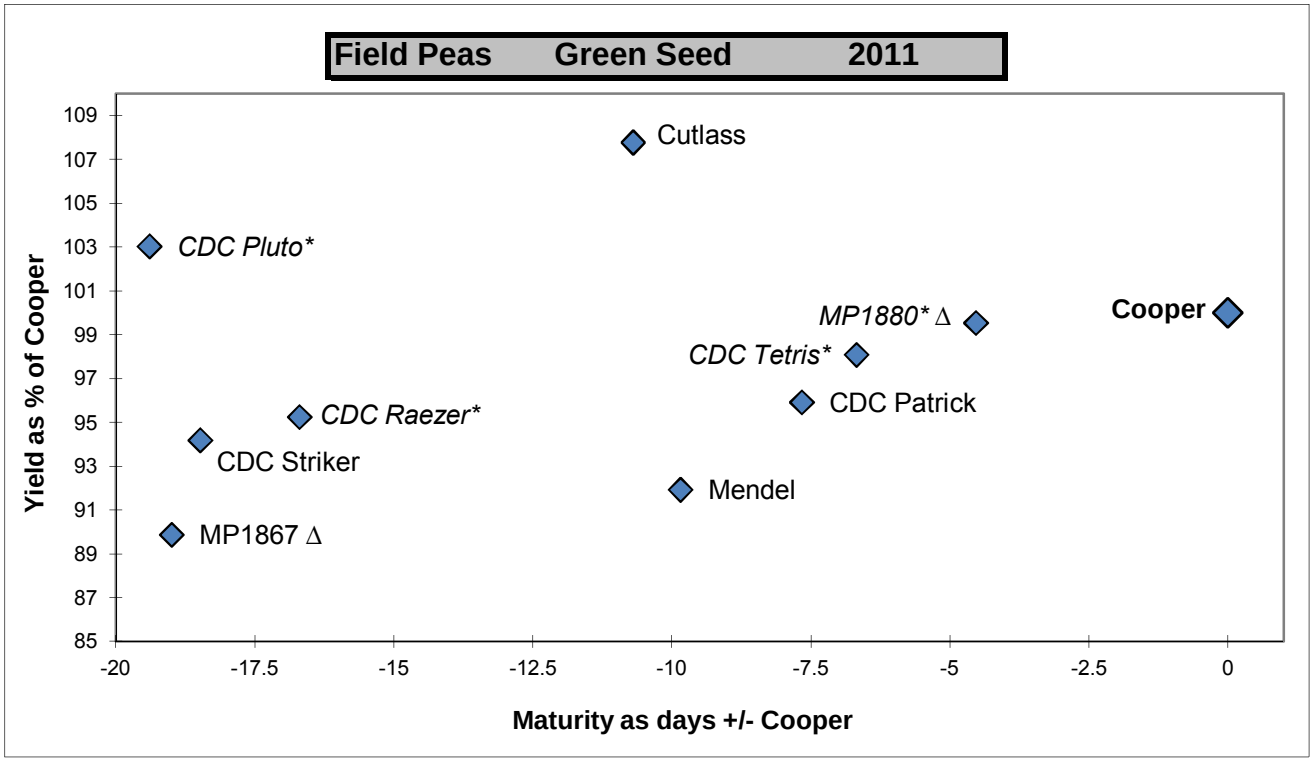
Means followed by the same letter do not significantly differ (P=.05, LSD)

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 **132** days for **2011**

Field Pea (Yellow Seed)

Yield as % of Cutlass

Variety	**Designated Powdery Mildew Resistant	Dawson Creek 2011 Yield bus / acre		Dawson Creek 2011 Yield % of check	Dawson Creek 2006-2011 Avg. (%)	Dawson Creek 2006-2011 Stn. Yrs.	Fort St. John 2011 Yield bus / acre		Fort St. John 2011 Yield % of check	Fort St. John 2006-2011 Avg. (%)	Fort St. John 2006-2011 Stn. Yrs.	B.C. Peace 2011 Avg. (%)	B.C. Peace 2006-2011 Avg. (%)	B.C. Peace 2006-2011 Stn. Yrs.
Agassiz	VG	122	ab	94	105	[4]	107	a	98	103	[5]	96	104	[9]
APCM97107	VG	111	bc	85	94	[3]	106	a	96	102	[3]	91	98	[6]
Argus	VG	128	ab	98	100	[2]	111	a	101	118	[2]	100	109	[4]
Canstar	VG	126	ab	97	105	[5]	115	a	105	101	[6]	101	103	[11]
CDC Golden	VG	118	abc	91	95	[5]	108	a	98	97	[6]	95	96	[11]
CDC Hornet	VG	118	abc	90	102	[3]	107	a	97	104	[3]	94	103	[6]
CDC Meadow	VG	131	a	101	106	[5]	113	a	103	103	[6]	102	105	[11]
CDC Prosper	VG	126	ab	96	100	[3]	103	a	94	99	[4]	95	99	[7]
*CDC Saffron**	VG	119	abc	91	91	[1]	105	a	96	96	[1]	94	94	[2]
CDC Treasure	VG	125	ab	96	99	[3]	110	a	101	102	[4]	98	100	[7]
Cutlass	VG	130	ab	100	100	[5]	110	a	100	100	[6]	100	100	[11]
*Earlystar**	VG	132	a	102	102	[1]	112	a	102	102	[1]	102	102	[2]
Hugo	VG	127	ab	97	102	[3]	109	a	99	98	[4]	98	100	[7]
MP1861Δ	VG	114	abc	87	86	[2]	104	a	95	95	[2]	91	91	[4]
MP1864 Δ	VG	122	ab	94	99	[2]	110	a	100	124	[2]	97	112	[4]
*MP1882** Δ	VG	117	abc	90	90	[1]	105	a	95	95	[1]	93	93	[2]
Polstead	VG	131	a	101	104	[5]	117	a	106	105	[6]	103	105	[11]
*Sorento**	VG	128	ab	98	98	[1]	112	a	102	102	[1]	100	100	[2]
Stella Δ	VG	103	c	79	65	[2]	85	b	77	95	[2]	78	80	[4]
LSD (P=.05) =		11.39					9.95							
CV value (%) =		6.57					6.53							

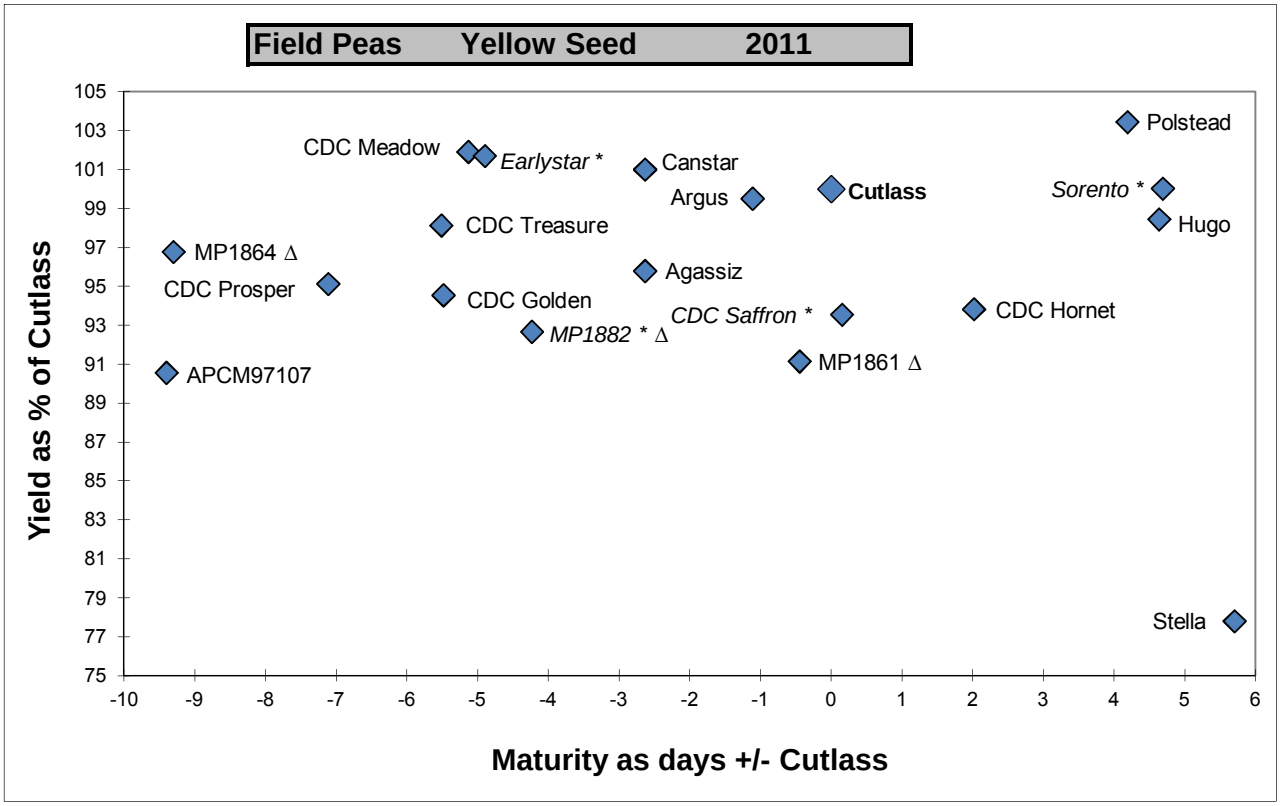
Means followed by the same letter do not significantly differ (P=.05, LSD)

**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

Cutlass - check variety



Average maturity for **Cutlass** is **123** days for **2011**

Field Peas — Variety Descriptions

BC Peace Averages 2006-2011

Variety	Maturity as days +/- check	Vine Length cm	Lodging 1-9**	1000 k grams	Distributor
		Yellow Seed			
■ Agassiz	-0.8	71	2	243	Canterra Seeds
APCM97107	-5.8	75	9	250	DL Seeds
■ Argus	-0.5	75	0	238	SeCan
■ Canstar	-1.0	70	2	263	Canseed (Canada) Ltd.
CDC Golden	-3.2	68	1	231	Sask Pulse Growers
CDC Hornet	2.1	70	1	234	Sask Pulse Growers
CDC Meadow	-2.4	74	2	223	Sask Pulse Growers
CDC Prosper	-3.7	63	1	160	Sask Pulse Growers
*CDC Saffron**	0.2	95	0	287	Sask Pulse Growers
CDC Treasure	-3.2	74	1	227	Sask Pulse Growers
Cutlass	0.0	66	3	240	Sask Pulse Growers
■ *Earlystar**	-4.9	114	0	240	Canterra Seeds
■ Hugo	2.4	51	2	241	FP Genetics
MP1861 Δ	-1.0	64	0	292	AAFC-Lacombe
MP1864 Δ	-4.5	78	0	229	Hadland Seed Farms
*MP1882** Δ	-4.2	86	0	253	AAFC-Lacombe
■ Polstead	2.3	56	2	273	FP Genetics
■ *Sorento**	4.7	93	0	260	FP Genetics
■ Stella Δ	4.8	85	0	247	Alliance Seeds Corp.
		Green Seed			
CDC Patrick	-4.4	70	1	201	Sask Pulse Growers
*CDC Pluto**	-19.4	101	0	188	Sask Pulse Growers
*CDC Raezer**	-16.7	105	0	244	Sask Pulse Growers
CDC Striker	-10.6	67	1	245	Sask Pulse Growers
*CDC Tetris**	-6.7	112	0	251	Sask Pulse Growers
■ **Cooper**	0.0	66	2	292	Canterra Seeds
Cutlass	-7.4	62	2	237	Sask Pulse Growers
■ Mendel	-5.2	75	1	244	FP Genetics
MP1867 Δ	-10.4	79	0	240	AAFC-Lacombe
*MP1880** Δ	-4.5	80	0	294	AAFC-Lacombe

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.

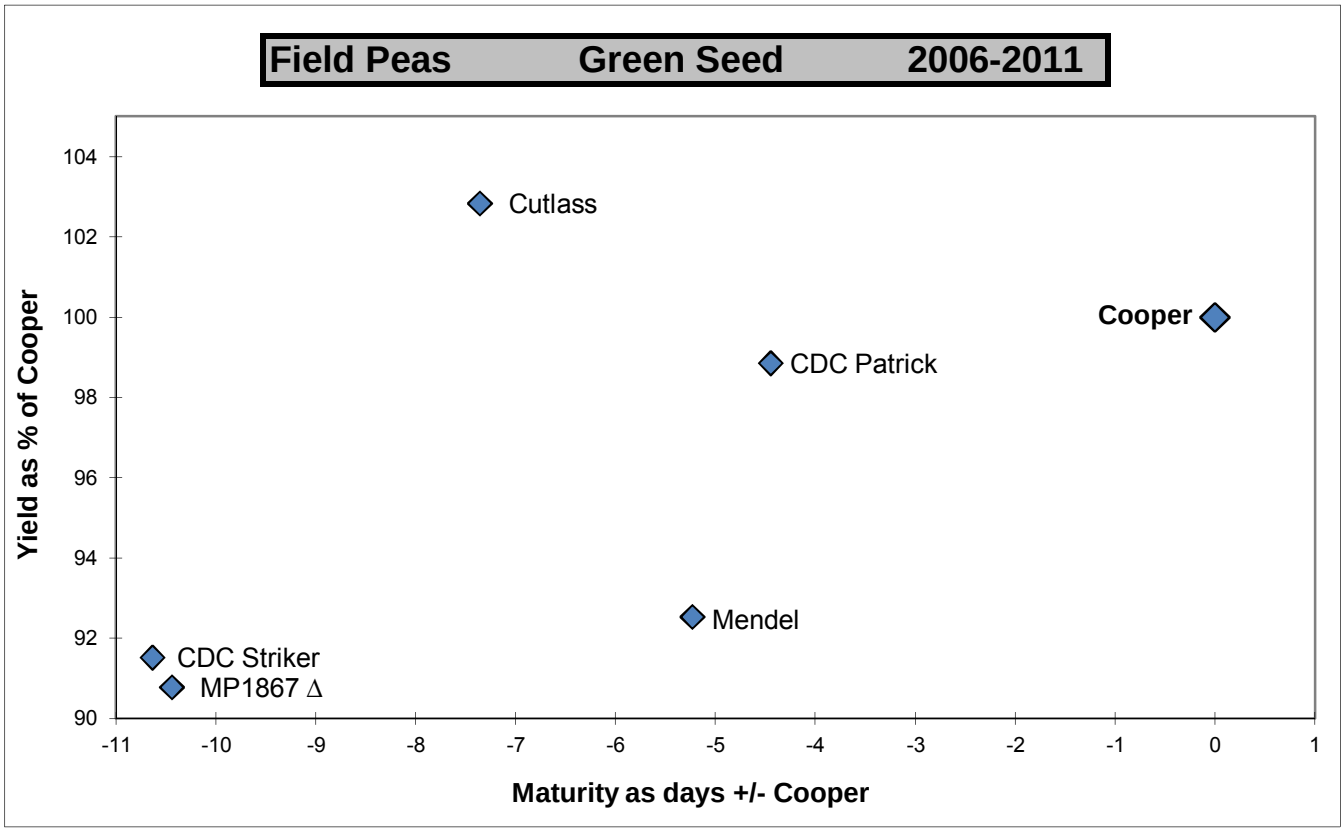
Lodging data is becoming important criteria when selecting peas for our area, as peas still standing at harvest stand a better chance of escaping ecretia contamination from large wildlife, especially if harvested as direct-cut. Note that due to variability of lodging, numbers averaged tend to be lower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

Overall average maturity for **Cutlass** is **100** days, and **107** days for **Cooper**

■ Protected by Plant Breeders' Rights

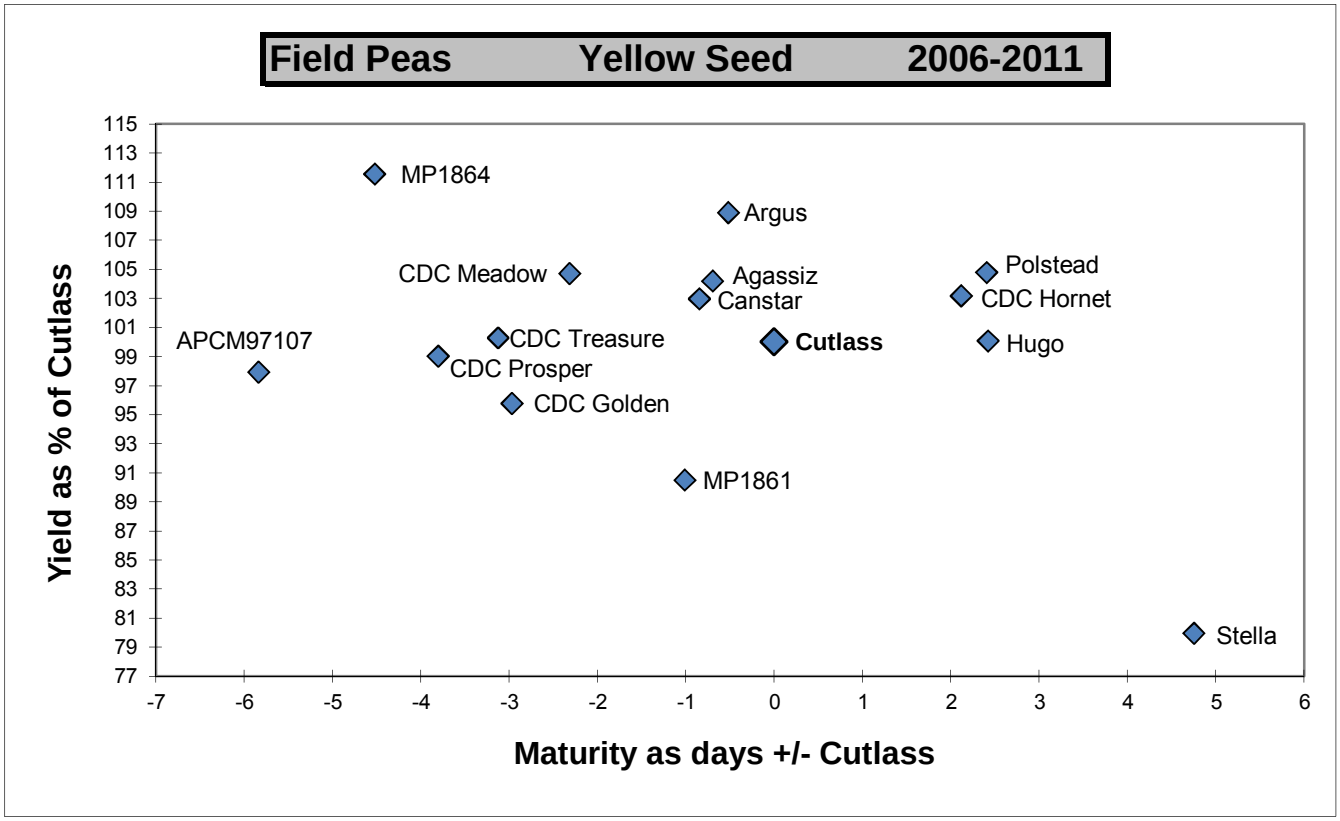
Δ denotes materials not registered, very limited data available
* first year tested, very limited data available

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



Overall average maturity for **Cooper** is **107** days for **2011**

Δ denotes materials not registered



Overall average maturity for **Cutlass** is **100** days for **2011**

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, although the introduction of the new lines *Prairie Thunder* (notably so) and *Prairie Grande* has taken a lot of the risk out. Just the same, large acreage should be discouraged until further breeding programs have resulted in earlier maturing varieties. The B.C. Grain Producers Association continues to look into the development of earlier maturing varieties as well as frost-tolerant lines that can be planted earlier than traditionally. 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 advised by Dr. Paul Dribnenki, previous Viterra flax breeder)**.** This seems to prevent flower abortion in heat and reduces reflowering in August. In the end this helps to delivers a more consistant and earlier maturation of the seed.

Flax — Yield as % of NorLin

	Dawson Creek					Fort St. John					B.C. Peace			Variety Descriptions		
	2011 Yield			2006-2011		2011 Yield			2006-2011		2011	2006-2011		Maturity Height		
Variety	bus / acre		% of Check	Avg. (%)	stn yrs	bus / acre		% of Check	Avg. (%)	stn yrs	Avg. (%)	Avg. (%)	stn yrs	days +/- check	(cm)	Distributor
■ CDC Bethune	43	ab	105	101	[5]	51	ab	110	95	[4]	107	98	[9]	4.6	55	SeCan
■ CDC Sanctuary	42	b	101	115	[3]	55	a	117	113	[2]	109	114	[5]	6.3	62	SeCan
Flanders	43	ab	106	99	[5]	54	a	114	98	[4]	110	98	[9]	6.5	52	SeCan
*FP2270** Δ	47	a	113	113	[1]	54	a	115	115	[1]	114	114	[2]	9.0	74	FP Genetics
■ Hanley	40	b	96	94	[5]	50	abc	106	96	[4]	101	95	[9]	5.4	51	SeCan
Norlin	41	b	100	100	[5]	47	bcd	100	100	[4]	100	100	[9]	0.0	52	SeCan
■ Prairie Blue	40	b	98	105	[3]	48	bcd	103	102	[2]	100	103	[5]	5.8	61	SeCan
■ Prairie Grande	42	b	101	102	[5]	45	d	95	100	[4]	98.3	101	[9]	0.9	50	SeCan
■ Prairie Sapphire	35	c	86	87	[2]	46	cd	98	98	[1]	91.9	92	[3]	5.8	66	Alliance Seed
■ Prairie Thunder	43	ab	104	103	[5]	50	abc	106	107	[4]	105	105	[9]	-0.1	50	Canterra Seeds
LSD (P=.05) =	3.16					3.41										
CV value (%) =	5.23					4.72										

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

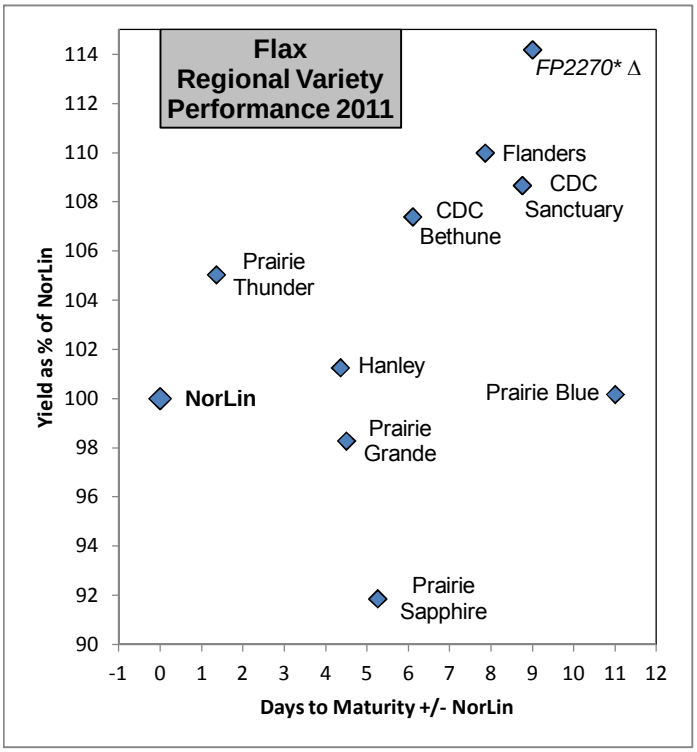
NorLin - check variety

Note: No data included from 2004 & 2006 due to adverse harvest, drought, geese & deer damage.

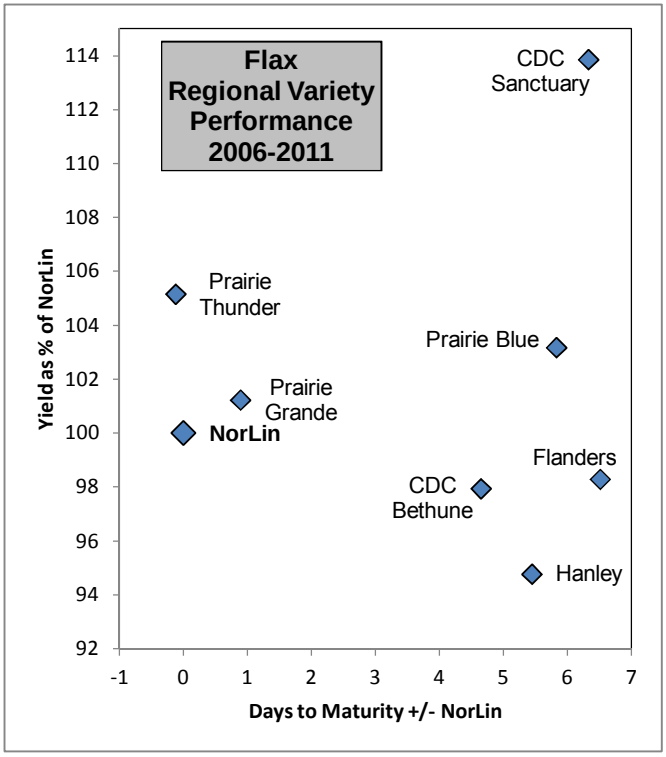
■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available



Average maturity for **NorLin** is **114** days for **2011**



Overall average maturity for **NorLin** is **112** days

Summary of 2011 Trials

Data used directly for the production of this report…

Regional Variety Trials	Site	Varieties	Replicates	Plots	Source
Regional 2 Row Barley	DC	24	4	96	Alex Fedko - AAFCDC Edmonton, AB *
Regional 6 Row Barley	DC	12	4	48	Alex Fedko - AAFCDC Edmonton, AB *
Regional Oats	DC	11	4	44	Alex Fedko - AAFCDC Edmonton, AB *
Regional CWRS Wheat (HRSW)	DC	30	4	120	Alex Fedko - AAFCDC Edmonton, AB *
Regional GP (General Purpose/CPS/SWS)	DC	12	4	48	Alex Fedko - AAFCDC Edmonton, AB *
Regional Durum Wheat	DC	7	4	28	Alex Fedko - AAFCDC Edmonton, AB *
Regional Triticale	DC	8	4	32	Alex Fedko - AAFCDC Edmonton, AB *
Prairie Wide Napus-CPT-NS1	DC	23	4	92	Alex Fedko - AAFCDC Edmonton, AB *
BCGPA Napus NS1 Comparison	DC	15	4	60	BCGPA Research Department **
BCGPA Napus NS2 Comparison	DC	16	4	64	BCGPA Research Department **
Regional Flax	DC	10	4	40	Alex Fedko - AAFCDC Edmonton, AB *
Regional Green Field Pea	DC	10	4	40	Alex Fedko - AAFCDC Edmonton, AB *
Regional Yellow Field Pea	DC	19	4	76	Alex Fedko - AAFCDC Edmonton, AB *
Regional 2 Row Barley	FSJ	24	4	96	Alex Fedko - AAFCDC Edmonton, AB *
Regional 6 Row Barley (& Hulless)	FSJ	12	4	48	Alex Fedko - AAFCDC Edmonton, AB *
Regional Oats	FSJ	11	4	44	Alex Fedko - AAFCDC Edmonton, AB *
Regional CWRS Wheat (HRSW)	FSJ	30	4	120	Alex Fedko - AAFCDC Edmonton, AB *
Regional GP (General Purpose/CPS/SWS)	FSJ	12	4	48	Alex Fedko - AAFCDC Edmonton, AB *
Regional Durum Wheat	FSJ	8	4	32	Alex Fedko - AAFCDC Edmonton, AB *
Regional Triticale	FSJ	7	4	28	Alex Fedko - AAFCDC Edmonton, AB *
Prairie Wide Napus-CPT-NS1	FSJ	23	4	92	Alex Fedko - AAFCDC Edmonton, AB *
BCGPA Napus NS1 Comparison	FSJ	15	4	60	BCGPA Research Department **
BCGPA Napus NS2 Comparison	FSJ	16	4	64	BCGPA Research Department **
Regional Flax	FSJ	10	4	40	Alex Fedko - AAFCDC Edmonton, AB *
Regional Green Field Pea	FSJ	10	4	40	Alex Fedko - AAFCDC Edmonton, AB *
Regional Yellow Field Pea	FSJ	19	4	76	Alex Fedko - AAFCDC Edmonton, AB *

* some entries sourced by BCGPA directly ** all entries sourced by BCGPA directly or their inclusion requested by local agri-business

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

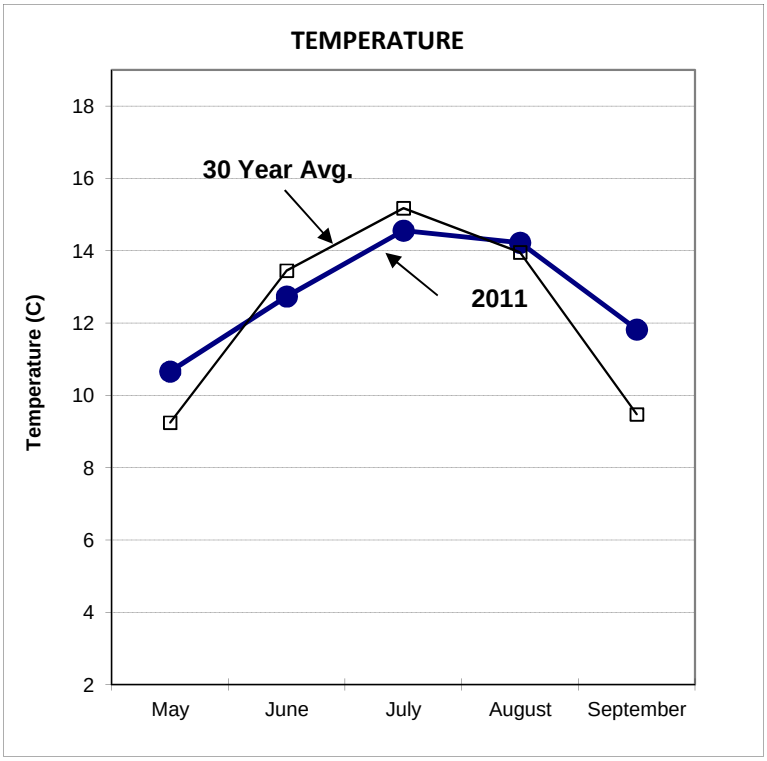
Varietal Development	Site	Varieties	Replicates	Plots	Source
Barley					
Barley 2-Row Western Co-op	DC	30	3	90	Dr. Tom Zatorski - U of S Malt B Prgm
Barley 6-row Western Co-op	DC	21	3	63	Dr. Mario Therrien / Bill Legge - AAFC Brandon
B-S51 Barley Co-op - Silage (Jim Helm)	DC	25	3	75	Pat Justiw/J. Nyachiro - AAFCDC Lacombe
B-Y51 Barley Co-op - Gain (Jim Helm)	DC	25	3	75	Pat Justiw/J. Nyachiro - AAFCDC Lacombe
Viterra - 2-Row Barley Marketing	DC	14	3	42	Tim Ferguson - Viterra (Saskatoon)
Canola					
Ag Canada - Prelim/Public Rapa Co-op	DC	32	3	96	Dr. Kevin Falk, AAFC - Saskatoon
Ag Canada - Prelim/Public Rapa Co-op	FSJ	32	3	96	Dr. Kevin Falk, AAFC - Saskatoon
DL-Seed Napus Trial 301	DC	25	3	75	Dr. Kevin McCallum - DL Seeds, MB
DL-Seed Napus Trial 305	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	13	4	52	Jason Nordstrom, Pioneer Hi-Bred, Edmonton
PIONEER-Napus CCNSR-401 (Mid-Season)	DC	26	4	104	Jason Nordstrom, Pioneer Hi-Bred, Edmonton
WCC-Canola Council Napus NS1 Co-op	DC	25	3	75	Raymond Gadoua - Canola Council of Can.
WCC-Canola Council Napus NS2 Co-op	DC	25	3	75	Raymond Gadoua - Canola Council of Can.
WCC-Canola Council Napus NS3 Co-op	DC	25	3	75	Raymond Gadoua - Canola Council of Can.
Camelina					
Ag Canada - Camelina Biodiesel Feedstock	DC	10	4	40	Dr. Kevin Falk/Ryan Vetter, AAFC-Saskatoon
Ag Canada - Camelina Biodiesel Feedstock	FSJ	10	4	40	Dr. Kevin Falk/Ryan Vetter, AAFC-Saskatoon
Dry Bean					
Dry Bean Adaptation Demo	DC	6	4	24	Dr. Parthiba Balasubramanian - AAFC Lethr.
Dry Bean Adaptation Demo	FSJ	6	4	24	Dr. Parthiba Balasubramanian - AAFC Lethr.
Flax					
Ag Canada Flax CFET-A Co-op	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Ag Canada Flax Prelim-A Co-op	FSJ	36	3	108	Dr. Scott Duguid - MRC Morden
Ag Canada Flax Prelim-A Co-op	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Ag Canada/BCGPA Early Flax Co-op	DC	36	3	108	Dr. Scott Duguid - MRC Morden

Varietal Development *continued …*	Site	Varieties	Replicates	Plots	Source
Flax Continued…					
Ag Canada/BCGPA Early Flax Co-op	FSJ	36	3	108	Dr. Scott Duguid - MRC Morden
Flax - Northern Flax - Project -N11PY -10DC	DC	25	2	50	Dr.Dribnenki, Viterra, Vegreville, AB
Flax - Northern Flax - Project -N11PY -11DC	DC	25	2	50	Dr.Dribnenki, Viterra, Vegreville, AB
Flax - Northern Flax - Project -N11PY -12DC	DC	25	2	50	Dr.Dribnenki, Viterra, Vegreville, AB
Flax - Northern Flax - Project -N11PY -13DC	DC	25	2	50	Dr.Dribnenki, Viterra, Vegreville, AB
Flax - Northern Flax - Project -N11PY -14DC	DC	25	2	50	Dr.Dribnenki, Viterra, Vegreville, AB
Flax - Northern Flax - Project -N11PY -15DC	DC	25	2	50	Dr.Dribnenki, Viterra, Vegreville, AB
Agronomic Trials					
Bayer - Flea Beetle Studies	DC	11	4	44	Ryan Nielson - Bayer CropScience, Calgary
Bayer - Flea Beetle Studies	FSJ	11	4	44	Ryan Nielson - Bayer CropScience, Calgary
BeckerUnderwood - Flea Beetle Studies	DC	6	4	24	Piran Cargrrg - Becker Underw. - Saskatoon
BeckerUnderwood - Flea Beetle Studies	FSJ	6	4	24	Piran Cargrrg - Becker Underw. - Saskatoon
IPNI - Avail® in-furrow Fertilizer Trial	DC	9	4	36	Tom Jensen - IPNI, Saskatoon, SK
IPNI - Nutrisphere® deep-band Fert Trial	DC	13	4	52	Tom Jensen - IPNI, Saskatoon, SK
Viterra Napus Herbicide Systems CL/LL	DC	10	3	30	Tim Ferguson - Viterra
Viterra Napus Herbicide Systems RR	DC	20	3	60	Tim Ferguson - Viterra
Oats					
Oat - F4YT- Private Co-op	DC	30	2	60	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Oat - Regional Advanced Oat Co-op (RAT)	DC	36	3	108	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Oat - WCORT Co-op	DC	36	3	108	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Oat - Western Prairie Advanced Oat (WPAT)	DC	36	3	108	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Oat Advantage® - Co-op B	DC	24	2	48	Jim Dyck- Advantage Seeds
Other					
PRFSA - forage seed plots (S. Burton)	FSJ	25	4	100	Sandra Burton - PRFSA
Peas					
Field Pea Co-op "A"	FSJ	36	3	108	Dr. Dengjin Bing - AAFC Lacombe
Field Pea Co-op "B"	FSJ	36	3	108	Dr. Dengjin Bing - AAFC Lacombe
Peace Region Field Pea (PYT01) Trial	FSJ	36	2	72	Dr. Dengjin Bing - AAFC Lacombe
Peace Region Field Pea (PYT02) Trial	FSJ	36	2	72	Dr. Dengjin Bing - AAFC Lacombe
Triticale					
T-S51Triticale Silage	DC	22	3	66	Dr. Don Salmon - AAFRD Lacombe, AB
T-Y51Triticale Grain Pre-Co-op	DC	22	3	66	Dr. Don Salmon - AAFRD Lacombe, AB
T-Y52 Triticale Grain Pre-Co-op	FSJ	22	3	66	Dr. Don Salmon - AAFRD Lacombe, AB
Wheat					
Early Wheat Parkland 'A1' (3m plots)	FSJ	100	2	200	Dr. Gavin Humphreys -AAFC Winnpeg
Early Wheat Parkland 'A2' (3m plots)	FSJ	81	2	162	Dr. Steve Fox - AAFC Winnpeg
Early Wheat Parkland 'A3' (3m plots)	FSJ	49	2	98	Dr. Gavin Humphreys -AAFC Winnpeg
Early Wheat PRDHFM (3m plots)	FSJ	128	1	128	Dr. Gavin Humphreys -AAFC Winnpeg
Early Wheat PRF8m2 (3m plots)	FSJ	144	1	144	Dr. Gavin Humphreys -AAFC Winnpeg
Early Wheat PRF8m3 (3m plots)	FSJ	180	1	180	Dr. Gavin Humphreys -AAFC Winnpeg
Ethanol Feedstocks-B Private (BCGPA)	DC	23	4	92	BCGPA/Humphreys/Brown/Fox/Depauw
Ethanol Feedstocks-B Private (BCGPA)	FSJ	23	4	92	BCGPA/Humphreys/Brown/Fox/Depauw
Hard White Spring Wheat Co-op	DC	30	3	90	Dr. Ron DePauw - AAFC Swift Current
Hard White Spring Wheat Co-op	FSJ	30	3	90	Dr. Ron DePauw - AAFC Swift Current
Parkland 'B' Wheat Co-op	FSJ	25	3	75	Dr. Dean M. Spaner - U of Alberta
Parkland 'C' Wheat Co-op	DC	30	3	90	Alanna Olson - AAFC Beaverlodge
Parkland 'C' Wheat Co-op	FSJ	30	3	90	Alanna Olson - AAFC Beaverlodge
VITERRA Wheat Marketing	DC	23	3	69	Jim Anderson - Viterra
Wheat - ORGAYT - U of A Co-op	FSJ	25	3	75	Dr. Dean M. Spaner - U of Alberta

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 2011



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
May	11	9
June	13	13
July	15	15
August	14	14
September	12	9

Frost Events: -1.3 May 7 -1 Sept 28
-1.8 May 8 **-2.5 Oct 1**

Killing Frost (-2.2 C) Free Period: 163 days
April 21 - October 1

Accumulated Growing Degree Days:
2011: 1137
1994-2011 Average: 1164

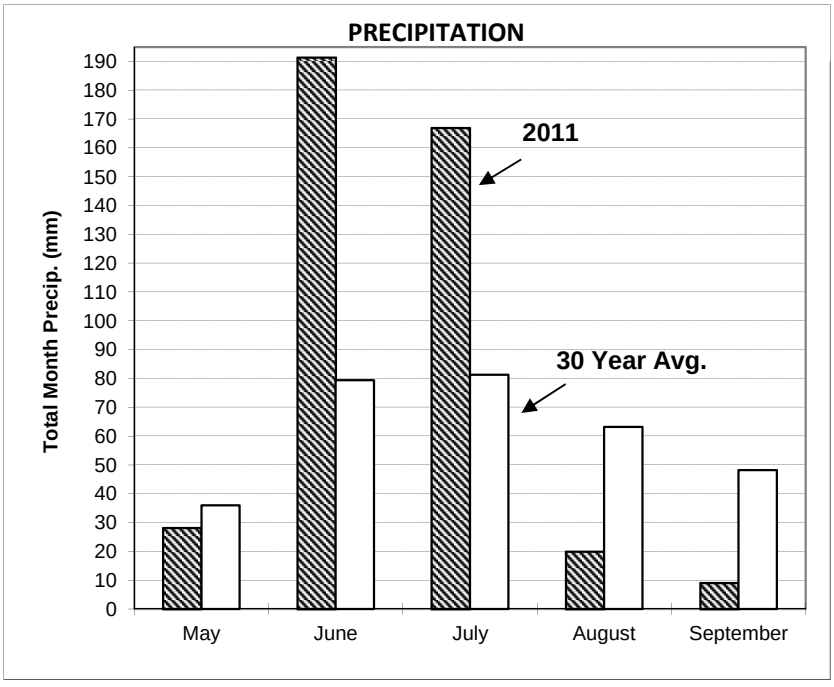
* 30 year average DC from 1968-1997
Source: Environment CANADA

PRECIPITATION

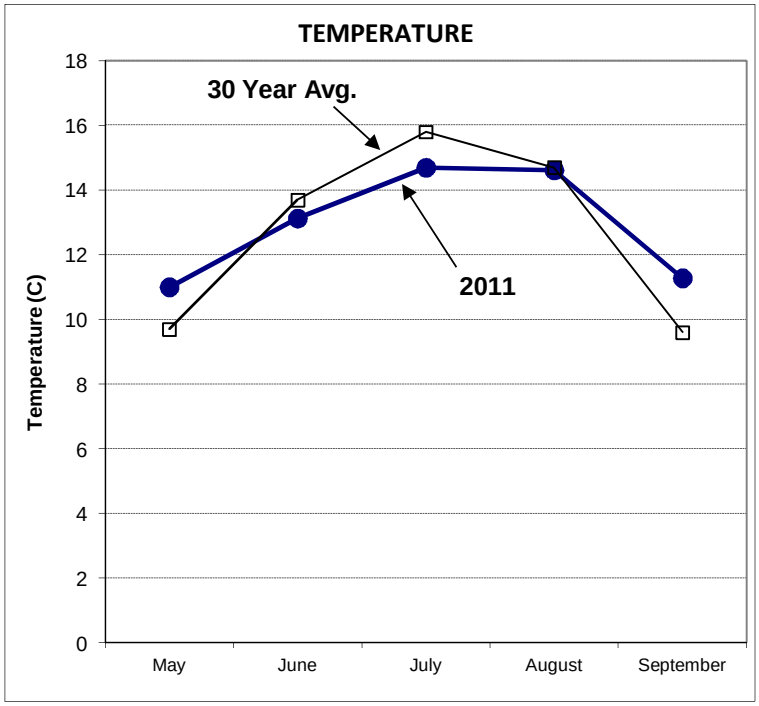
Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
May	28	36
June	191	79
July	167	81
August	20	63
September	9	48

Data is provided by an on site weather station maintained by the Canadian Wheat Board through its Weatherfarm® program (a cooperation with WeatherBug®) and in conjunction with the BC Grain Producers Association.

weatherfarm



Fort St. John Weather Information 2011



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
May	11	10
June	13	14
July	15	16
August	15	15
September	11	10

Frost Events: **-2.2 May 1** -1.9 Sept 13
-2.2 June 5 **-2.3 Oct 3**

Killing Frost (-2.2 C) Free Period: 120
June 5 - October 3

Accumulated Growing Degree Days:
2011: 1159
1994-2011 Average: 1152

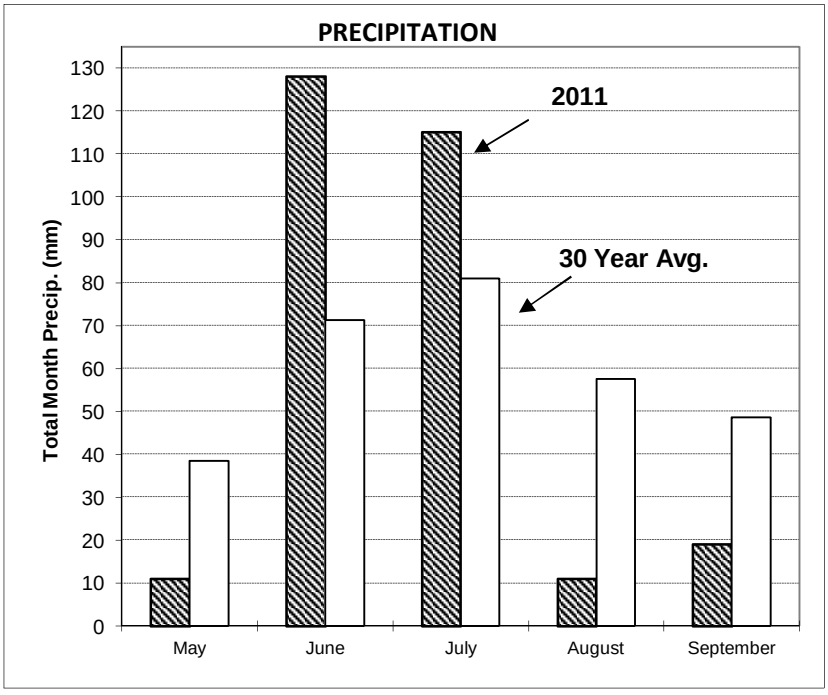
* 30 year average FSJ from 1968-1997
source: Environment CANADA

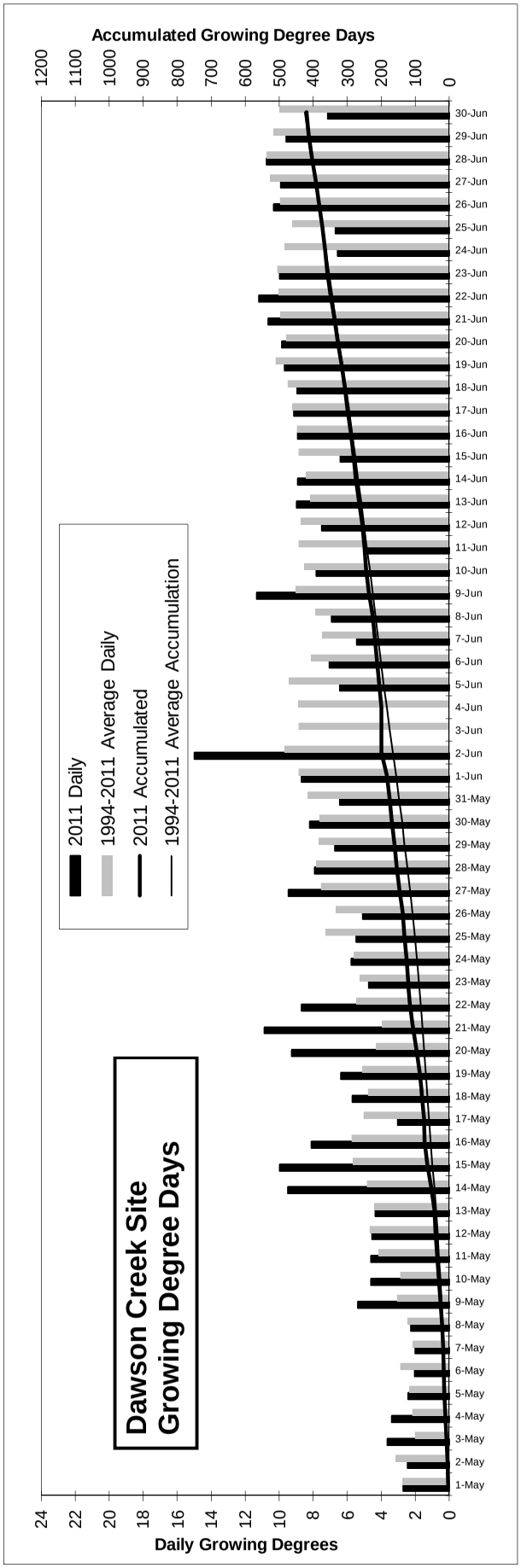
PRECIPITATION

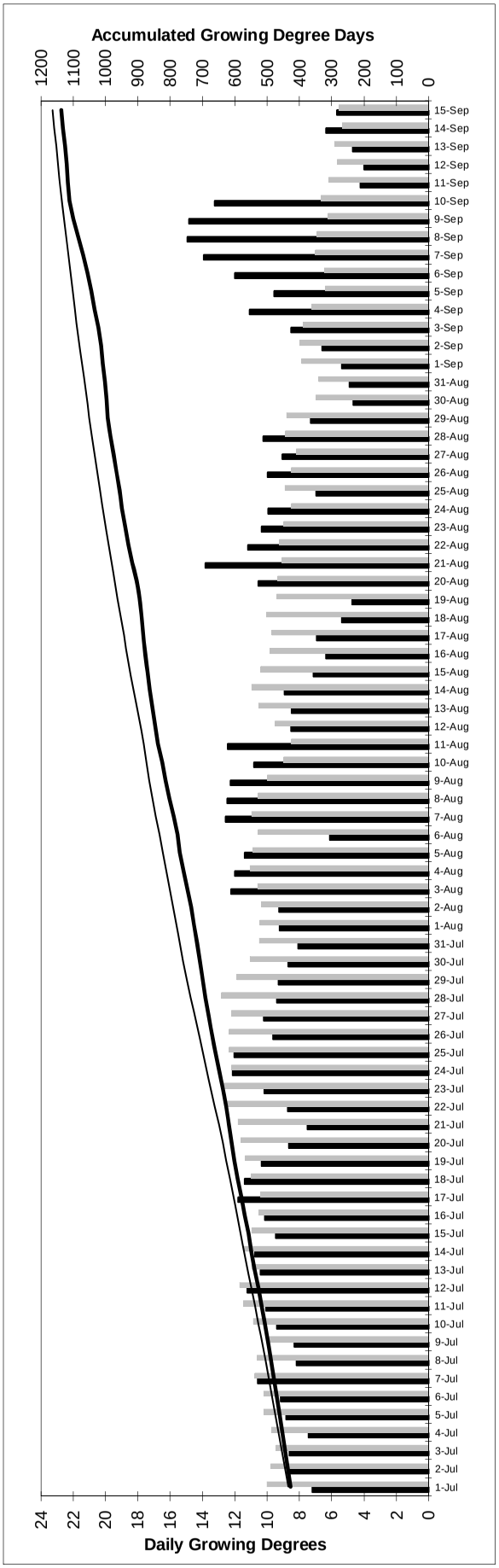
Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
May	11	39
June	128	71
July	115	81
August	11	58
September	19	49

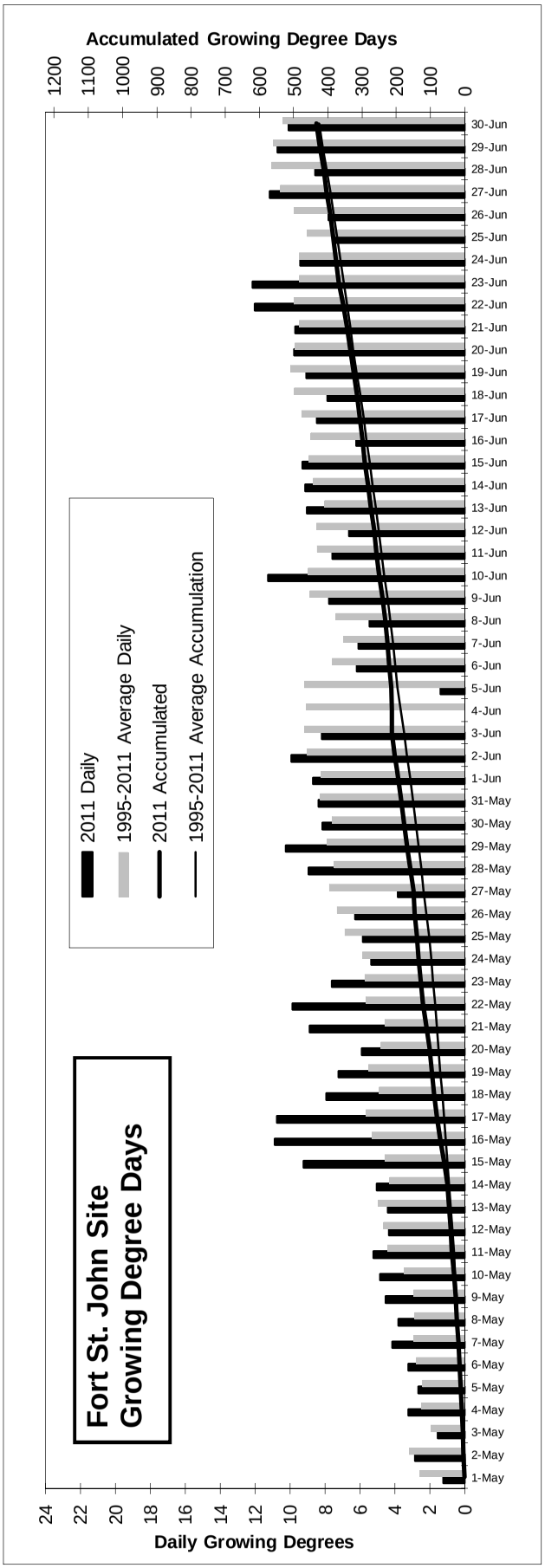
Data is provided by an on site weather station maintained by the Canadian Wheat Board through its Weatherfarm® program (a cooperation with WeatherBug®) and in conjunction with the BC Grain Producers Association.

weatherfarm




Dawson Creek Site
Growing Degree Days
2011 Daily
1994-2011 Average Daily
2011 Accumulated
1994-2011 Average Accumulation
Accumulated Growing Degree Days
Daily Growing Degrees


Accumulated Growing Degree Days
Daily Growing Degrees


Accumulated Growing Degree Days
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
30-Jun
29-Jun
28-Jun
27-Jun
26-Jun
25-Jun
24-Jun
23-Jun
22-Jun
21-Jun
20-Jun
19-Jun
18-Jun
17-Jun
16-Jun
15-Jun
14-Jun
13-Jun
12-Jun
11-Jun
10-Jun
9-Jun
8-Jun
7-Jun
6-Jun
5-Jun
4-Jun
3-Jun
2-Jun
1-Jun
31-May
30-May
29-May
28-May
27-May
26-May
25-May
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23-May
22-May
21-May
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18-May
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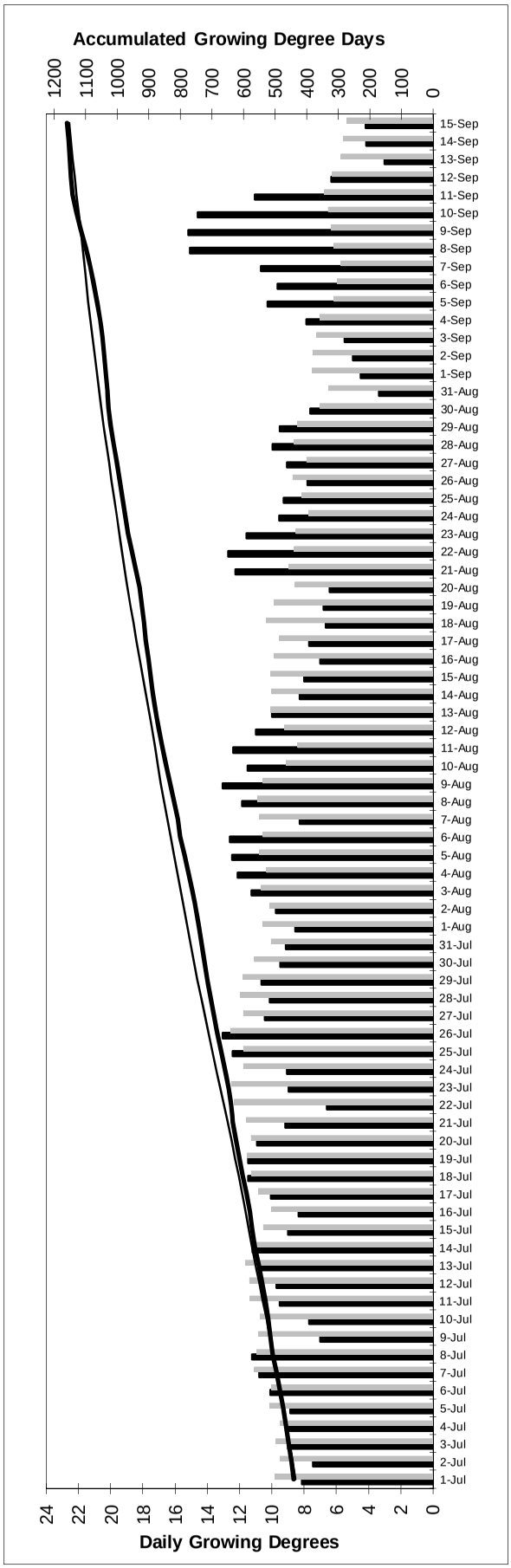
16-May
15-May
14-May
13-May
12-May
11-May
10-May
9-May
8-May
7-May
6-May
5-May
4-May
3-May
2-May
1-May
2011 Daily
1995-2011 Average Daily
2011 Accumulated
1995-2011 Average Accumulation
Fort St. John Site
Growing Degree Days
24
22
20
18
16
14
12
10
8
6
4
2
0
Daily Growing Degrees


Accumulated Growing Degree Days
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
15-Sep
14-Sep
13-Sep
12-Sep
11-Sep
10-Sep
9-Sep
8-Sep
7-Sep
6-Sep
5-Sep
4-Sep
3-Sep
2-Sep
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8-Jul
7-Jul
6-Jul
5-Jul
4-Jul
3-Jul
2-Jul
1-Jul
24
22
20
18
16
14
12
10
8
6
4
2
0
Daily Growing Degrees

Photo above: Cereal research plots at Dawson Creek's research farm; barley in the foreground, wheat behind the barley, both in the front main cereal block. Photo was taken around late August, 2011. More canola and cereal research can be seen at the far back. 2011 was a year of excessive moisture in June and July, causing incredible yields, quality, but late maturity in the end… for those trials surviving the excessive moisture period (most trials). 2011 was also a record year in the total number of research plots, around 8,000 plots in total between both Dawson Creek and Fort St. John research farms.

List of Certified Seed Distributors

Alliance Seed Corp.
c/o Parrish & Heimbecker 2149 Imperial Access Rd.
Dawson Creek Toll-Free:1(800) 315-6336
www.allianceseed.com
www.parrishandheimbecker.com

Bayer CropScience Inc. Canada
#100, 3131-114 Ave. SE Calgary, AB T2Z 3X2
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
P.O. Box 2499 Morden, MB R6M 1C2
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
RR #1 Sundre, AB T0M 0X0
Phone:(403)-556-2609 Fax: (403)-507-2609
www.mastinseeds.com

Monsanto Canada Inc (DEKALB)
900 - 1 Research Road Winnipeg, MB R3T 6E3
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
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
501-300 March Road Kanata, ON K2K 2E2
Toll-Free:1(800) 764-5487 Phone: (613)-592-8600
www.secan.com

Seed Depot Corp.
P.O. Box 208 Pilot Mound, MB R0G 1P0
Phone: (204)-825-2000
www.seeddepot.ca

SeedNet
Ron Markert Phone: (403)-485-6708
http://www.seednet.ca

Solick Seeds Ltd.
Po Box 97 Halkirk, AB T0C 1M0
Phone: (403)-884-2358 Fax: (403)-884-2360

Syngenta Seeds Canada Inc.
15910 Medway Road, RR 1 Arva, ON N0M 1C0
Toll-Free:1(800) 756-7333
www.nkseed.com
www.syngenta.ca

T & L Seeds
P.O. Box 216 North Battleford, SK S9A 2Y1

Viterra
P.O. Box 6600 CanWest Global Place 201
Portage Avenue Winnipeg, MB R3C 3A7
Toll Free:1(866) 569-4411 Fax: 1(866) 310-4156
Dawson Creek Phone:(250)-782-9264
Fort St.John Phone:(250)-785-3445
www.viterra.ca

Wedge Farms(Smart&Natural Foods ltd)
box 276 363 River Road Arborg, MB R0C 0A0
toll free: 1(877) 738-2144 fax: 1(204)-376-2201
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

Western Ag Labs
#3-411 Downey Road Saskatoon, SK. S7N 4L8
Toll Free:1(888) 978-0373 Fax:(306)-978-4140
http://www.westernaglabs.com