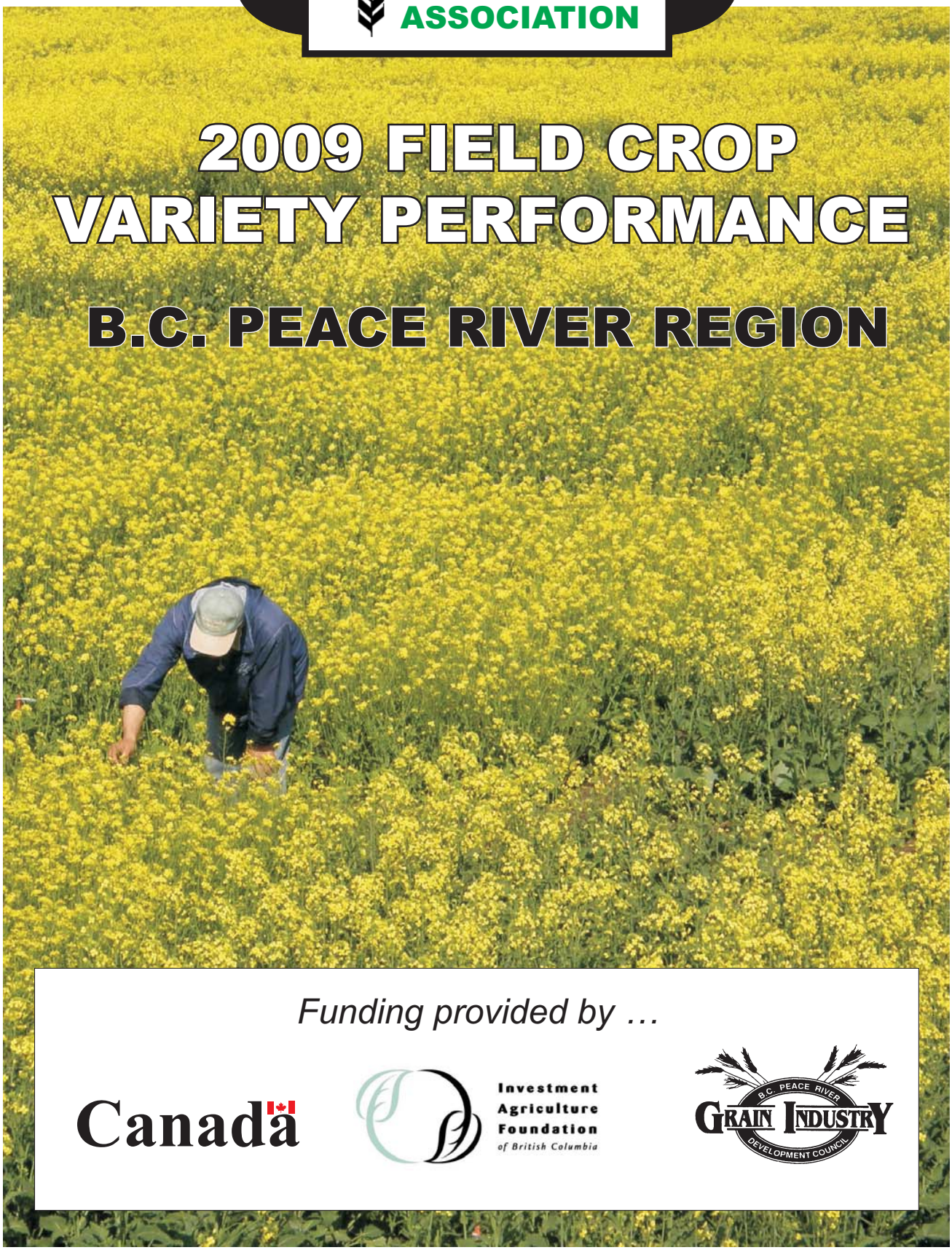
B.C. GRAIN PRODUCERS ASSOCIATION

2009 FIELD CROP VARIETY PERFORMANCE

B.C. PEACE RIVER REGION



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Investment Agriculture Foundation of British Columbia

B.C. Peace River Grain Industry Development Council

BC Grain Producers Association

2009 Field Crop Variety Performance

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Front cover photo

Staff member Satoru Nosho assessing canola research plots at the Fort St. John research farm, July 2009
Front cover photo credit: Clair Langlois

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BC Grain Producers Association
2009 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) and **VITERRA** (Dawson Creek and Calgary offices) should also be recognized for their contribution via kernel protein analysis. We thank these organizations for their "in-kind" support toward making our field-testing and the production of this book possible. 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 ***Rebekah Langlois*** 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.

This document reports all registered materials grown during the 2009 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 2009, but which were previously tested, may now be viewed via earlier publications and are available for viewing or downloading @ ***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 displayed the results in two graphs for each crop, 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 such 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 collected. It should only be used as a guide, and where labels are available with your product, always follow label directions.

For More Information Contact:

Clair F. Langlois - Research Manager
B.C. Grain Producers Association
401 - 114th Avenue, Dawson Creek, BC V1G 2Z7
Tel: (250) 782-2557 FAX: (250) 784-2299

Martin Moore - Research Committee Chair
B.C. Grain Producers Association
P.O. Box 6004, Fort St.John, BC V1J 4H6
Tel: (250) 787-2588

Kerry Clark - P.Ag. Crop Protection Specialist
B.C. Ministry of Agriculture and Lands
Dawson Creek, BC FAX: (250) 784-2299
Tel: (250) 784-2559 or 1-877-772-2200

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 three 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…

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

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

BC Grain Producers Association - 2009 Growing Conditions -

Our farming season started cold and wet via the reluctance of winter to leave - delaying the initiation of planting as a result. Once planting started about the end of the first week of May, it was halted by mid-May via heavy late snowfall. Even after planting resumed late May, soil moisture reserves quickly depleted as little to no significant rainfall fell after planting and throughout the entire month of June. Soil temperatures also remained cool and ironically, for those who received the snowfall, it protected early emerging crops from the freezing temperatures and once it melted it gave those same crops their only real drink of moisture post-winter until early July.

Results from such a cool dry spring were reflected in the slow and stunted plant growth of the seedlings, placing most crops at least two weeks behind by July. Both research farms received the first significant rainfall on or near July 2nd that turned growing patterns around – and just in time. As a result, sincere tillering started finally for most cereals with the new growth outperforming the original spikes by harvest but with surprisingly little "green seed". For canola and flax, its "real" growth only started at this time – having laid almost dormant in order to survive the spring drought prior to July 2nd. The months of July and most of August were above normal temperatures with average rainfall which helped to make up for the potentially devastating spring. A lack of a killing frost until near Thanksgiving also helped our two sites finish up, although harvest was easily still one to two weeks behind.

The only exception to this pattern was the field peas, which took longer than normal to emerge but took the best advantage of the late snowfall to do most of its growth right through the dry month of June. As Dawson Creek was once again drier than Fort St. John during the drought, most crops (including peas) at DC were shorter than usual and lower yielding in 2009 than those grown at FSJ. In fact many crops at FSJ made some incredible yields once rains returned July/August as most crops there had less stress earlier on.

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 2009 Yield	Dawson Creek 2003-2009 Avg.	Dawson Creek Stn.Yrs.	Fort St.John 2009 Yield	Fort St.John 2003-2009 Avg.	Fort St.John Stn.Yrs.	B.C. Peace 2009 Yield	B.C. Peace 2003-2009 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 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	
	2009	2003-2009
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 2009

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	69	banded	Recommended* =	0	30	15	5
	6-26-30	50	banded	Actually applied =	22.5	25.5	13.4	7.4
	12-52-0	30	in-furrow					
Flax	27-0-0-12	69	banded	Recommended* =	25	30	15	10
	6-26-30	50	banded	Actually applied =	22.5	25.5	13.4	7.4
	12-52-0	30	in-furrow					
Cereals	34.5-0-0-0	75	banded	Recommended* =	0	25	15	5
	6-26-30	50	banded	Actually applied =	28.6	25.5	13.4	0
	12-52-0	30	in-furrow					
Peas	27-0-0-12	0	banded	Recommended* =	0	30	15	0
	6-26-30	50	banded	Actually applied =	6.0	25.5	13.4	0
	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	90	banded	Recommended* =	25	25	20	15
	6-26-30	55	banded	Actually applied =	27.8	26.7	14.7	9.6
	12-52-0	30	in-furrow					
Flax	27-0-0-12	50	banded	Recommended* =	10	25	15	10
	6-26-30	50	banded	Actually applied =	17.9	25.5	13.4	5.4
	12-52-0	30	in-furrow					
Wheat & Barley	34.5-0-0-0	75	banded	Recommended* =	0	27	12	0
	6-26-30	50	banded	Actually applied =	28.6	25.5	13.4	0
	12-52-0	30	in-furrow					
Malt Barley & Oats	34-0-0-0	64	banded	Recommended* =	0	30	15	5
	6-26-30	50	banded	Actually applied =	25.3	25.5	13.4	0
	12-52-0	30	in-furrow					
Peas	27-0-0-12	0	banded	Recommended* =	0	20	15	0
	6-26-30	50	banded	Actually applied =	6.0	25.5	13.4	0
	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	19-Jun-09	Muster (ethametsulfuron methyl)	12 g/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		Poast Ultra (sethoxydim)	200 ml/ac
		Merge	400 ml/ac
	11-Jun-09	Decis	60 ml/ac
Field Peas	21-May-09	Roundup Ultra (glyphosate) (pre-emerge to crop following no-till planting; all plots checked first for emergence)	500 ml/ac
	--	Late weeds controlled by hand-pulling in crop	
Flax	21-May-09	Roundup Ultra (glyphosate) (pre-emerge to crop following no-till planting; all plots checked first for emergence) Late weeds controlled by hand-pulling in crop	500 ml/ac
Wheat, Barley, Oat	21-May-09	Roundup Ultra (glyphosate) (pre-plant to no-till planting; late weeds hand-pulled)	500 ml/ac

Dawson Creek, B.C.	Legal Description: SW20 Tp78 R14 W6		
Crop	**Date Applied**	**Product Used**	**Product Rate**
Wheat & Barley	18-Jun-09	Refine Extra (older formulation)	8 g/ac
Oats, Malt Barley		AgSurf	2L/1000L H2O
Field Peas	10-Jun-09	Sencor (metribuzin) 75%DF	77 g/ac
		MCPA Sodium	190 ml/ac
	--	(late flushes of grasses hand-pulled - very few)	
Flax	15-Jun-09	Curtail-M	800 ml/ac
	--	(late flushes of grasses hand-pulled - very few)	
Canola (napus & rapa)	19-Jun-09	Muster (ethametsulfuron methyl)	12 g/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		Poast Ultra (sethoxydim)	200 ml/ac
		Merge	400 ml/ac
	15-Jun-09	Decis	60 ml/ac

All seed was treated with seed treatment; canola with Helix Xtra®, cereal & flax with Raxil FL®, and pea seed with Vitaflo 280®.

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-09	4	0.75 - 1 inch	23-Sep-09	crop-push/direct
	Flax	40	45	11-May-09	9	0.5 - 0.75 inch	27-Sep-09	desiccate/direct
	Barley	77	86	22-May-09	8	0.5 - 1 inch	5-Sep-09	direct cut
	CWRS Wheat	90	101	22-May-09	8	0.5 - 1 inch	18-Sep-09	direct cut
	CPS/CWES	90	101	22-May-09	8	0.5 - 1 inch	2-Oct-09	direct cut
	Oats	81	90	22-May-09	8	0.5 - 1 inch	11-Sep-09	direct cut
	Triticale	117	131	22-May-09	8	0.5 - 1 inch	2-Oct-09	direct cut
	Peas	149	167	9-May-09	7	1 inch	28-Aug-09	desiccate/direct
DC	**Napus Canola**	8	8.9	15-May-09	5	0.75 inch	24-Sep-09	crop-push/direct
	Flax	40	45	10-May-09	6	0.75 inch	25-Sep-09	desiccate/direct
	Barley	77	86	23-May-09	9	0.75 inch	12-Sep-09	direct cut
	CWRS Wheat	90	101	23-May-09	9	0.75 inch	22-Sep-09	direct cut
	CPS/CWES	90	101	23-May-09	9	0.75 inch	1-Oct-09	direct cut
	Oats	81	90	24-May-09	8	0.75-1 inch	16-Sep-09	direct cut
	Triticale	117	131	23-May-09	9	1 inch	1-Oct-09	direct cut
	Peas	149	167	8-May-09	5	1 - 1.25 inch	29-Aug-09	direct cut

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 2009 Yield bus / acre		% of Check	Dawson Creek 2005-2009 Avg. (%)	Station Years	Fort St. John 2009 Yield bus / acre		% of Check	Fort St. John 2005-2009 Avg. (%)	Station Years	B.C. Peace 2009 Avg. (%)	B.C. Peace 2005-2009 Avg. (%)	Station Years
5603HR *	41	a	95	95	[1]	61	abc	116	116	[1]	106	106	[2]
AC Barrie	42	a	98	86	[5]	56	abc	106	100	[5]	102	93	[10]
AC Splendor	37	a	87	88	[5]	52	bc	98	91	[5]	92	90	[10]
BW394 Δ	42	a	98	98	[1]	56	abc	106	106	[1]	102	102	[2]
BW878 Δ	37	a	87	87	[1]	49	c	92	92	[1]	89	89	[2]
BW880 Δ	39	a	90	90	[1]	55	abc	104	104	[1]	97	97	[2]
BW881 Δ	40	a	95	95	[1]	63	ab	118	118	[1]	106	106	[2]
BW883 Δ	40	a	93	93	[1]	64	ab	121	121	[1]	107	107	[2]
Carberry *	47	a	109	109	[1]	65	ab	122	122	[1]	116	116	[2]
CDC Abound	46	a	109	105	[4]	62	abc	117	108	[4]	113	107	[8]
CDC Alsask	39	a	92	104	[5]	57	abc	107	108	[5]	100	106	[10]
CDC Go	44	a	103	104	[5]	58	abc	110	107	[5]	106	106	[10]
CDC Osler	45	a	104	103	[5]	54	abc	102	105	[5]	103	104	[10]
Fieldstar VB	42	a	98	95	[2]	59	abc	112	103	[2]	105	99	[4]
Glenn *	39	a	91	91	[1]	58	abc	110	110	[1]	101	101	[2]
Goodeve VB	45	a	105	98	[3]	57	abc	108	107	[3]	107	102	[6]
Harvest	40	a	94	89	[5]	54	bc	102	101	[5]	98	95	[10]
Infinity	42	a	98	102	[5]	58	abc	110	108	[5]	104	105	[10]
KANE	40	a	93	89	[3]	58	abc	110	98	[3]	101	94	[6]
Katepwa	43	a	100	100	[5]	53	bc	100	100	[5]	100	100	[10]
Lillian	39	a	91	97	[3]	54	abc	102	104	[3]	97	100	[6]
Minnedosa *	38	a	88	88	[1]	64	ab	120	120	[1]	104	104	[2]
Muchmore *	46	a	107	107	[1]	62	ab	118	118	[1]	113	113	[2]
Peace	40	a	94	85	[4]	58	abc	110	101	[4]	102	93	[8]
PT575 Δ	36	a	84	84	[1]	59	abc	111	111	[1]	98	98	[2]
Snowbird **	35	a	83	92	[5]	57	abc	108	102	[5]	95	97	[10]
Snowstar **	41	a	97	91	[4]	60	abc	113	106	[4]	105	99	[8]
Stettler	48	a	113	115	[2]	64	ab	121	117	[2]	117	116	[4]
Superb	44	a	104	110	[5]	67	a	128	117	[5]	116	113	[10]
Unity VB	45	a	105	105	[2]	62	abc	116	109	[2]	111	107	[4]
Waskada	37	a	87	94	[3]	58	abc	110	103	[3]	98	98	[6]
WR859 CL *	41	a	97	97	[1]	57	abc	108	108	[1]	103	103	[2]
LSD (P=.05) =	7.3					7.39							
CV value (%) =	12.66					9.03							

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 and **CDC Abound** are Clearfield® tolerant varieties

Unity VB is a Wheat Midge Resistant variety

CWRS Wheat — Variety Descriptions

	Variety	B.C. Peace Averages 2005 - 2009: Days to Maturity +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 Tolerance to: Lodging	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	Sprouting	FHB	Distributor
■	*5603HR* *	-4	72	63	1	[2]	G	G	G	XX	F	XX	F	Viterra/Proven
■	AC Barrie	-2	74	64	1	[10]	G	G	F	P	P	G	F	SeCan
■	AC Splendor	-3	74	62	1	[10]	F	F	F	F	F	F	P	Secan
■	*BW394* Δ	-5	72	64	1	[2]								SeCan
■	*BW878* Δ	-13	67	64	0	[2]								Syngenta Seeds Canada
	BW880 Δ	-5	68	63	0	[2]								U of S
	BW881 Δ	-3	73	66	1	[2]								U of S
	BW883 Δ	-4	66	65	1	[2]								FP Genetics
■	*Carberry* *	-6	63	66	0	[2]								SeCan
■	CDC Abound	-3	69	65	1	[8]	G	F	F	XX	P	G	P	Viterra/Proven
■	CDC Alsask	-2	78	63	0	[10]	F	G	G	F	P	F	P	Viterra/Proven
	CDC Go	-5	72	64	0	[10]	G	P	G	P	P	P	F	Public
	CDC Osler	-3	74	63	0	[10]	G	G	G	XX	F	F	VP	Public
■	Fieldstar VB	-4	63	63	1	[4]	F	F	G	G	F	XX	F	SeCan
■	*Glenn* *	-2	64	66	1	[2]								Canterra Seeds
■	Goodeve VB	-4	77	63	1	[6]	G	G	P	F	P	XX	VP	Alliance Seed Corp
■	Harvest	-3	74	65	1	[10]	VG	G	F	XX	P	VG	VP	FP Genetics
■	Infinity	-1	76	63	0	[10]	G	G	F	P	P	G	VP	Canterra Seeds
■	KANE	-3	72	65	1	[6]	G	P	F	XX	F	XX	F	Secan
	Katepwa	**0**	**78**	**63**	**0**	**[10]**	**F**	**G**	**G**	**P**	**P**	**F**	**F**	**SeCan**
■	Lillian	-5	72	62	0	[6]	G	F	G	G	P	G	VP	Secan
■	*Minnedosa* *	-12	70	63	0	[2]								SeCan
■	*Muchmore* *	-5	60	65	0	[2]								FP Genetics
	Peace	0	82	64	1	[8]	G	VG	VG	F	XX	P	VP	PW Farms Ltd., BC
	PT575 Δ	-5	71	64	1	[2]								U of S
■	Snowbird **	-2	77	64	0	[10]	G	G	F	F	P	G	P	FP Genetics
■	Snowstar **	-5	69	65	0	[8]	XX	P	P	XX	F	F	P	Secan
■	Stettler	0	66	64	1	[4]	G	G	G	XX	P	G	P	Secan
■	Superb	-2	75	65	0	[10]	G	F	G	P	P	G	P	SeCan
■	Unity VB	-2	65	64	1	[4]	G	P	VG	F	F	G	P	Alliance Seed Corp
■	Waskada	-2	75	65	1	[6]	G	G	G	G	P	G	G	Secan
■	*WR859 CL* *	-8	61	65	0	[2]								Syngenta Seeds Canada

* 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 and **CDC Abound** are Clearfield® tolerant varieties

Unity VB is a Wheat Midge Resistant variety

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

XX = insufficient data

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

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

Average *maturity* for **Katepwa** is **105** days

Katepwa - check variety

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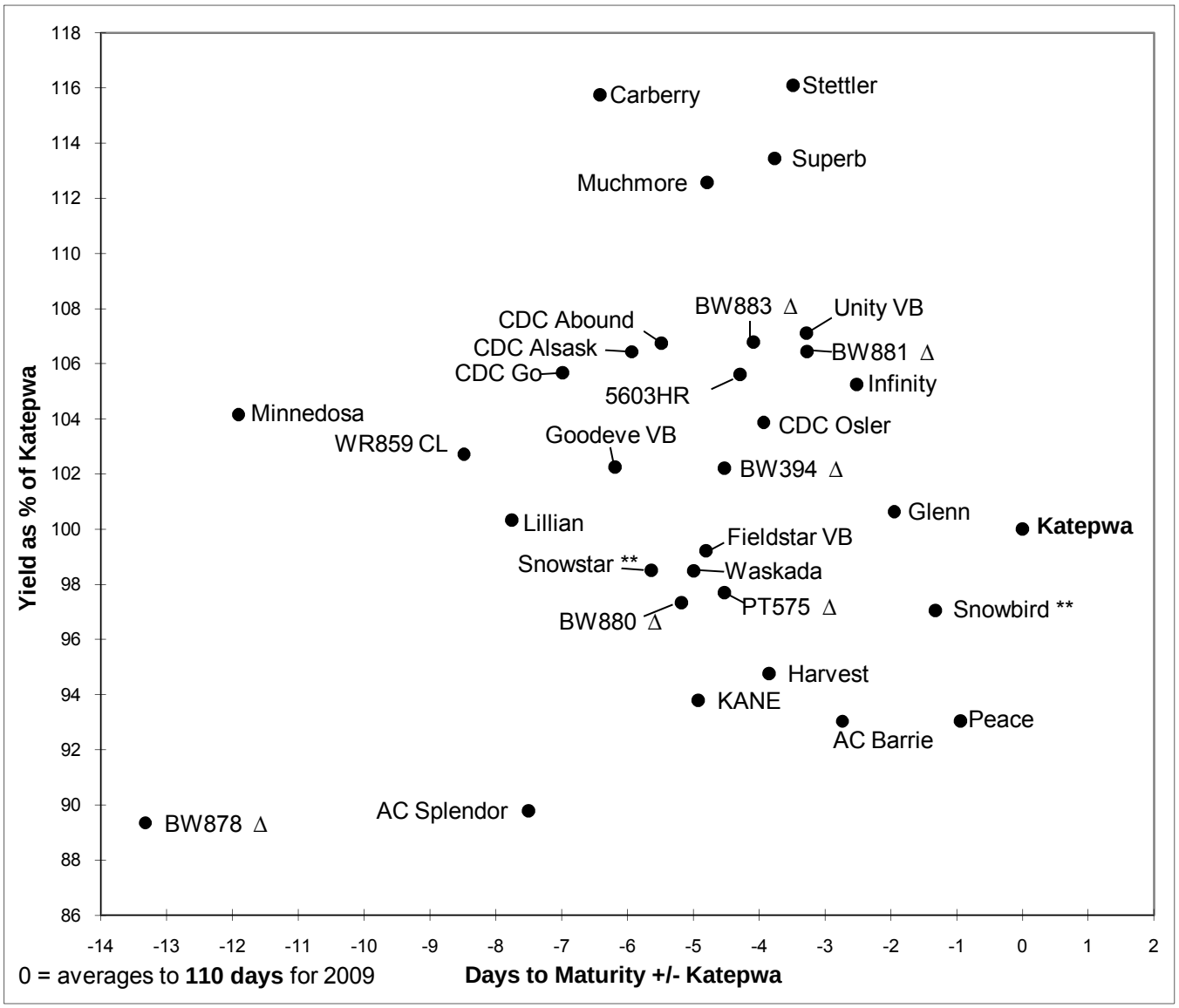
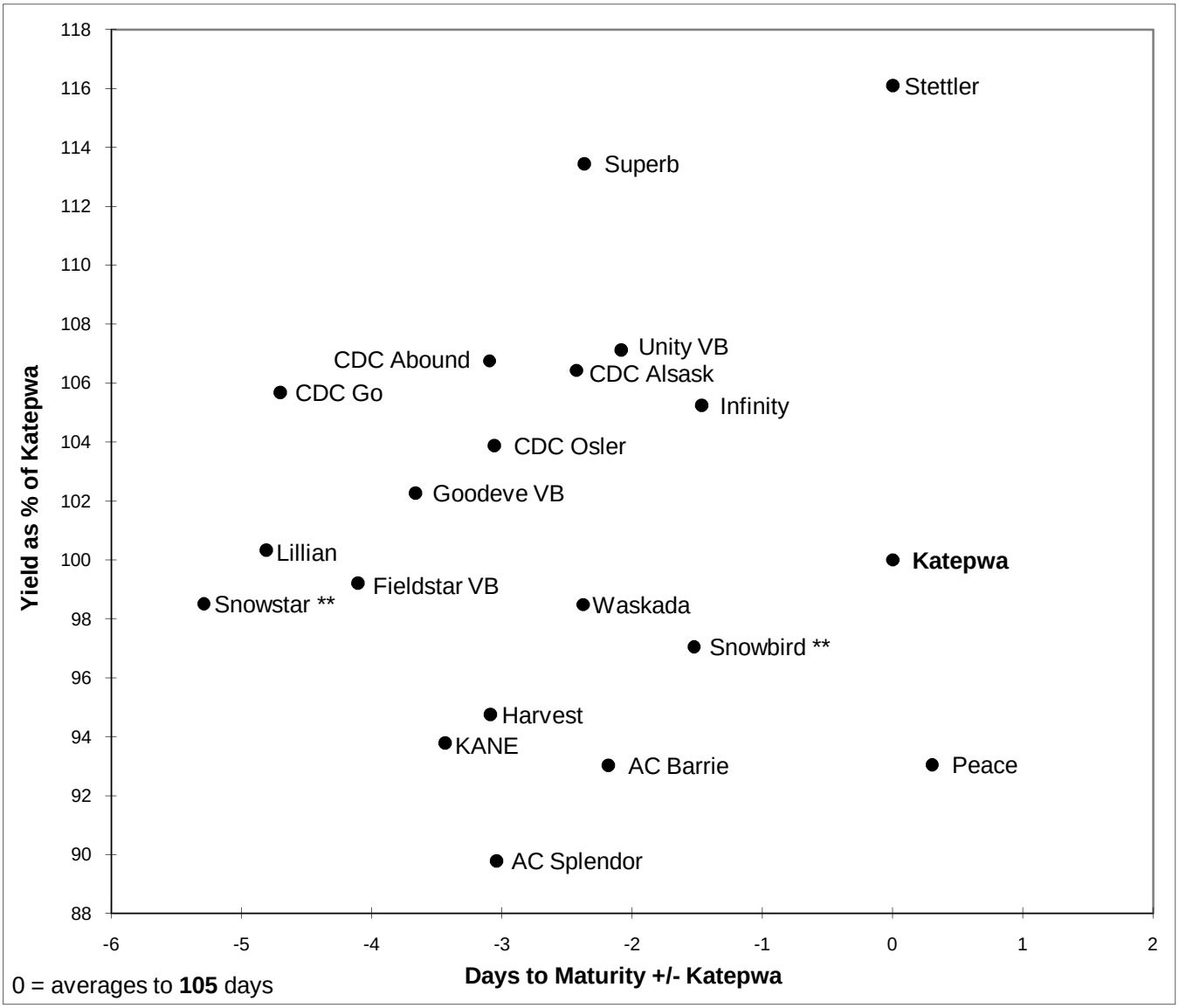


* first year tested, very limited data available
** CWHWS Canadian Western Hard White Spring Wheat
Δ denotes materials not registered, very limited data available
WR859 CL and **CDC Abound** are Clearfield® tolerant varieties
Unity VB is a Wheat Midge Resistant variety



** 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.

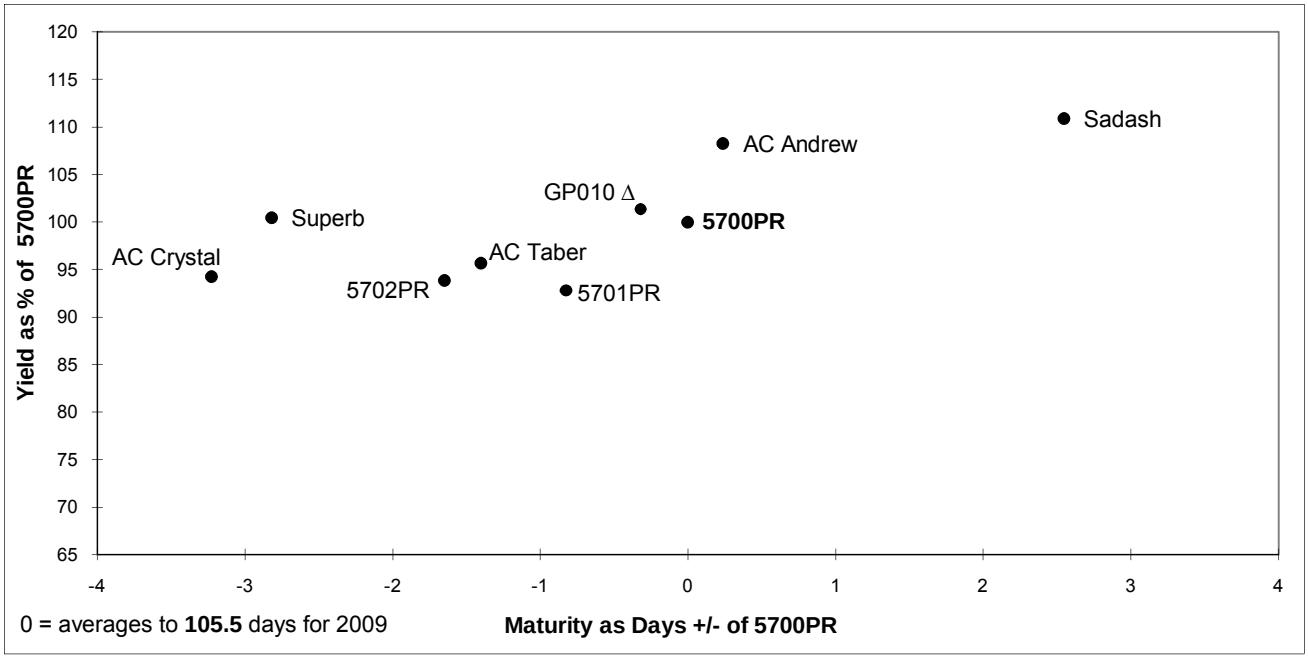
[For testing purposes, CPS and CWSWS wheats are grown together in the same trial and compared against a CWRS]

CPS / CWSWS Wheat — Yield as % of 5700PR

Variety	Type	Dawson Creek 2009 Yield bus / acre		Dawson Creek 2009 Yield % of check	Dawson Creek 2005 - 2009 Avg. (%)	Dawson Creek 2005 - 2009 Stn. Yrs.	Fort St. John 2009 Yield bus / acre		Fort St. John 2009 Yield % of check	Fort St. John 2005 - 2009 Avg. (%)	Fort St. John 2005 - 2009 Stn. Yrs.	B.C. Peace 2009 Avg. (%)	B.C. Peace 2005-2009 Avg. (%)	B.C. Peace 2005-2009 Stn. Yrs.
5700PR	**CPS-red**	**60**	**bc**	**100**	**100**	**[5]**	**74**	**ab**	**100**	**100**	**[5]**	**100**	**100**	**[10]**
5701PR	CPS-red	54	c	90	87	[5]	70	b	95	96	[5]	93	92	[10]
5702PR	CPS-red	53	c	88	97	[3]	74	ab	100	106	[3]	94	102	[6]
AC Andrew	CWSWS	66	ab	111	109	[3]	78	a	106	114	[3]	108	111	[6]
AC Crystal	CPS-red	57	c	94	69	[4]	69	b	94	89	[4]	94	79	[8]
AC Taber	CPS-red	57	c	95	80	[5]	71	b	96	92	[5]	96	86	[10]
GP010 Δ	CWGP	62	bc	103	103	[1]	74	ab	100	100	[1]	101	101	[2]
Sadash	CWSWS	72	a	120	126	[2]	75	ab	102	113	[2]	111	120	[4]
Superb	CWRS	62	bc	103	108	[2]	72	ab	98	100	[2]	100	104	[4]
LSD (P=.05) =		6.07					4.79							
CV value (%) =		6.89					4.50							

Δ denotes materials not registered, very limited data available

CPS / CWSWS Wheat — Regional Variety Performance 2009



Δ denotes materials not registered, very limited data available

CPS / CWSWS Wheat

B.C. Peace Averages 2005-2009

Data from Alberta Agdex 100/32

Variety	Type	Maturity in days +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Tolerance to: Lodging	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	Sprouting	FHB	Distributor
■ **5700PR**	**CPS-red**	**0**	**66**	**64**	**0**	**[10]**	**VG**	**P**	**G**	**P**	**P**	**P**	**VP**	**Viterra/Proven**
■ 5701PR	CPS-red	0	66	62	0	[10]	G	F	F	G	P	P	VP	Viterra/Proven
■ 5702PR	CPS-red	0	67	63	1	[6]	G	P	F	F	F	F	P	Viterra/Proven
AC Andrew	CWSWS	3	67	63	0	[6]	VG	VP	P	G	XX	F	VP	SeCan
■ AC Crystal	CPS-red	2	65	63	1	[8]	G	F	VG	P	F	P	VP	SeCan
AC Taber	CPS-red	3	66	63	0	[10]	G	P	VG	P	F	P	VP	SeCan
■ *GP010* Δ	CWGP	0	70	63	0	[2]								AAFC (Swift Current)
■ Sadash	CWSWS	3	67	64	0	[4]	VG	VP	VP	G	XX	F	P	SeCan
■ Superb	CWRS	-3	65	64	1	[4]	G	F	G	P	P	G	P	SeCan

* first year tested, very limited data available

5700PR - check variety

■ Protected by Plant Breeders' Rights

Overall average maturity for **5700PR** is **107** days.

Overall average protein for **5700PR** is **11.5%**

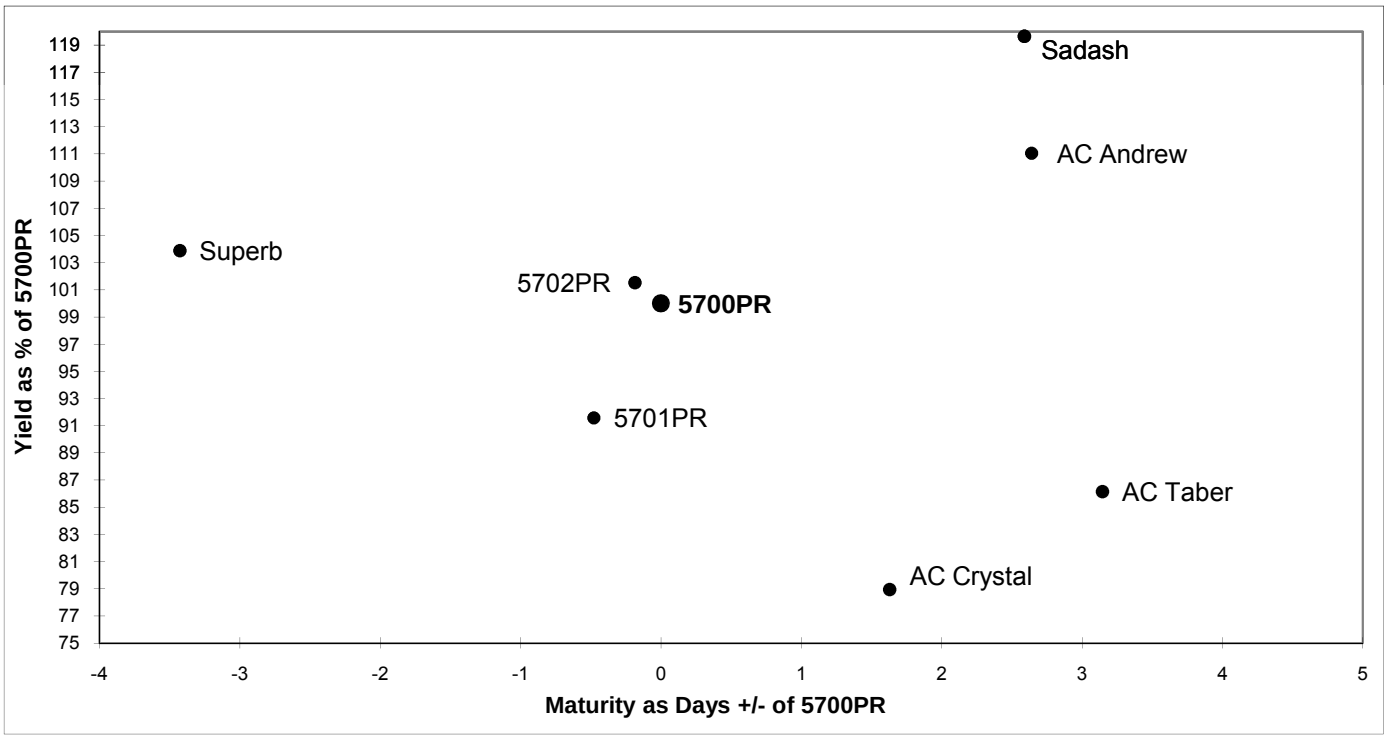
VG = very good, G = good, F = fair, P = Poor, VP = very poor

XX = insufficient data

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

Δ denotes materials not registered, very limited data available

CPS / CWSWS Wheat — Regional Variety Performance — 2005-2009



Note: The check for this test has been changed to **5700PR** in 2008 from **AC Taber** used previously.

Barley

Six Row Barley

Yield as % of AC Metcalfe

Variety	Type	Dawson Creek 2009 Yield bus / acre		Dawson Creek 2009 Yield % of check	Dawson Creek 2005 - 2009 Avg. (%)	Dawson Creek 2005 - 2009 Stn. Yrs.	Fort St. John 2009 Yield bus / acre		Fort St. John 2009 Yield % of check	Fort St. John 2005-2009 Avg. (%)	Fort St. John 2005-2009 Stn. Yrs.	B.C. Peace 2009 Avg. (%)	B.C. Peace 2005-2009 Avg. (%)	B.C. Peace 2005-2009 Stn. Yrs.
AC Albright	Feed	54	ab	97	105	[5]	91	g	85	89	[5]	91	97	[10]
AC Lacombe	Feed	56	ab	100	111	[5]	107	cd	100	99	[5]	100	105	[10]
AC Metcalfe	**2R Malt**	**56**	**ab**	**100**	**100**	**[5]**	**107**	**cd**	**100**	**100**	**[5]**	**100**	**100**	**[10]**
CDC Clyde	Malt	55	ab	98	119	[5]	94	fg	87	92	[5]	92	105	[10]
CDC Kamsack	Malt	49	b	88	84	[2]	96	efg	90	88	[2]	89	86	[4]
CDC Mayfair	Malt	57	ab	101	106	[2]	99	def	93	89	[2]	97	98	[4]
Chigwell	Feed	59	ab	104	103	[2]	111	c	104	100	[2]	104	101	[4]
Sundre ***	Feed	63	a	112	119	[5]	125	a	116	110	[5]	114	115	[10]
Tradition	Malt	50	b	88	107	[5]	102	cde	96	93	[5]	92	100	[10]
Trochu	Feed	57	ab	101	117	[5]	107	cd	100	98	[5]	100	108	[10]
Vivar **	Feed	64	a	113	118	[5]	118	b	110	100	[5]	111	109	[10]
LSD (P=.05) =		7.71					6.51							
CV value (%) =		9.47					4.29							

Two Row Barley

Yield as % of AC Metcalfe

Variety	Type	Dawson Creek 2009 Yield bus / acre		Dawson Creek 2009 Yield % of check	Dawson Creek 2005 - 2009 Avg. (%)	Dawson Creek 2005 - 2009 Stn. Yrs.	Fort St. John 2009 Yield bus / acre		Fort St. John 2009 Yield % of check	Fort St. John 2005-2009 Avg. (%)	Fort St. John 2005-2009 Stn. Yrs.	B.C. Peace 2009 Avg. (%)	B.C. Peace 2005-2009 Avg. (%)	B.C. Peace 2005-2009 Stn. Yrs.
AC Metcalfe	**Malt**	**50**	**bc**	**100**	**100**	**[5]**	**125**	**b-e**	**100**	**100**	**[5]**	**100**	**100**	**[10]**
Bentley	Malt	52	bc	105	109	[2]	126	b-e	101	101	[2]	103	105	[4]
Busby	Feed	50	bc	101	98	[2]	118	de	95	105	[2]	98	102	[4]
CDC Austenson *	Feed	53	bc	107	107	[1]	136	ab	109	109	[1]	108	108	[2]
CDC Carter * ¶	Feed	39	c	97	97	[1]	91	g	92	92	[1]	94	94	[2]
CDC Coalition	Feed	46	bc	92	102	[3]	132	a-d	106	108	[3]	99	105	[6]
CDC Copeland	Malt	41	c	82	88	[5]	125	b-e	101	97	[5]	91	93	[10]
CDC Meredith	Malt	49	bc	99	108	[2]	133	abc	107	109	[2]	103	108	[4]
CDC MinDon	Feed	52	bc	103	101	[3]	119	de	95	96	[3]	99	99	[6]
CDC Reserve	Malt	52	bc	105	113	[2]	125	b-e	100	105	[2]	102	109	[4]
CDC Trey	Feed	51	bc	102	105	[4]	120	cde	96	95	[4]	99	100	[8]
Champion	Feed	76	a	153	137	[3]	141	a	113	106	[3]	133	122	[6]
CONLON	Feed	47	bc	94	110	[5]	107	fg	86	83	[5]	90	97	[10]
HB705 * ¶	Feed	36	c	91	91	[1]	81	g	81	81	[1]	86	86	[2]
Major *	Malt	56	b	112	112	[1]	126	b-e	101	101	[1]	106	106	[2]
Newdale	Malt	54	bc	108	108	[4]	127	b-e	102	104	[4]	105	106	[8]
Ponoka	Feed	40	c	81	103	[5]	132	a-d	106	108	[5]	93	105	[10]
TR05671	Feed	53	bc	106	99	[2]	132	a-d	106	104	[2]	106	101	[4]
TR06294 Δ	Malt	57	b	114	114	[1]	132	a-d	106	106	[1]	110	110	[2]
TR07728 Δ	Feed	56	b	112	112	[1]	130	a-d	105	105	[1]	108	108	[2]
XENA	Feed	59	b	118	122	[5]	122	b-e	98	99	[5]	108	111	[10]
LSD (P=.05) =		8.16					8.00							
CV value (%) =		11.12					4.53							

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

AC Metcalfe - check variety

CDC MinDon exhibits low DON levels

* 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 2005-2009: Days to Maturity +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 info Tolerance to: Lodging	Loose Smut	False & Cv Smut	Root Rot	Scald	FHB	Distributor
	Eligible for General Purpose Grades Only													
	AC Albright	6 row	-6	71	53	0	[10]	XX	P	P	P	F	XX	Secan
■	AC Lacombe	6 row	-1	67	51	-1	[10]	G	P	G	P	P	VP	SeCan
■	Busby	2 row	-4	57	54	1	[4]	G	VP	G	VP	F	F	Mastin Seeds, AB
■	*CDC Austenson* *	2 row	2	71	56	-1	[2]	G	VP	VG	F	VP	F	SeCan
■	CDC Coalition	2 row	2	60	55	0	[6]	G	VG	VG	F	VP	F	Canterra
■	CDC MinDon	2 row	0	64	55	0	[6]	G	VG	VG	XX	VP	G	SeCan
■	CDC Trey	2 row	3	74	56	-1	[8]	G	P	VG	G	P	F	FP Genetics
■	Champion	2 row	2	62	54	-1	[6]	G	VP	VG	XX	VP	F	Viterra/Proven
■	Chigwell	6 row	-1	56	52	0	[4]	G	P	G	P	G	VP	SeCan
■	CONLON	2 row	-4	61	54	0	[2]	G	F	F	G	VP	G	Seed Depot Corp.
■	Ponoka	2 row	6	64	54	-1	[10]	G	VG	VG	F	G	F	SeCan
■	Sundre	6 row	4	73	54	-1	[10]	G	P	VG	P	VG	VP	Mastin Seeds, AB
■	TR05671	2 row	1	55	54	0	[4]	G	VP	VG	G	F	G	AARD Lacombe
■	*TR07728* Δ	2 row	2	66	56	-1	[2]							Westbred LLC
■	Trochu	6 row	-5	65	53	-1	[10]	G	P	G	G	F	F	Secan
■	XENA	2 row	3	64	54	0	[10]	G	P	P	G	VP	G	Viterra/Proven
	Semi-dwarf varieties													
■	Vivar	6 row	-2	63	51	-1	[10]	VG	F	VG	G	F	VP	SeCan
	Hulless varieties													
■	*CDC Carter* * ¶	2 row	-6	61	63	0	[2]							SeCan
■	*HB705* * ¶	2 row	-7	72	62	0	[2]							Alliance Seed Corporation
	Forage varieties													

Malt Barley

Variety Descriptions

	Variety	Type	B.C. Peace Averages 2005-2009: Days to Maturity +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check		Alberta Agdex 100/32 info Tolerance to: Lodging	Loose Smut	False & Cv Smut	Root Rot	Scald	FHB	Distributor
■	**AC Metcalfe**	**2 row**	**0**	**66**	**55**	**0**	**[20]**	**F**	**VG**	**F**	**F**	**VP**	**F**	**SeCan**
■	Bentley	2 row	0	57	52	1	[4]	G	P	G	G	VP	P	Canterra
■	CDC Clyde	6 row	0	62	52	-1	[10]	G	F	VG	G	P	VP	Viterra/Proven
■	CDC Copeland	2 row	4	69	54	-1	[10]	F	P	F	F	VP	F	SeCan
■	CDC Kamsack	6 row	2	51	52	0	[4]	G	F	G	F	P	VP	Canterra
■	CDC Mayfair	6 row	-3	52	50	0	[4]	G	VP	G	F	VP	P	Canterra
■	CDC Meredith	2 row	4	55	53	0	[4]	F	VG	G	G	VP	F	Secan
■	CDC Reserve	2 row	-3	56	53	0	[4]	F	VP	P	F	P	P	Secan
■	*Major* *	2 row	3	66	54	-1	[2]							Viterra/Proven
■	Newdale	2 row	1	62	53	0	[8]	F	VP	G	G	P	F	FP Genetics
	TR06294 Δ	2 row	4	69	53	0	[2]							AAFC (Brandon)
■	Tradition	6 row	-2	70	53	0	[10]	G	VP	G	G	VP	VP	Viterra/Proven

* 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

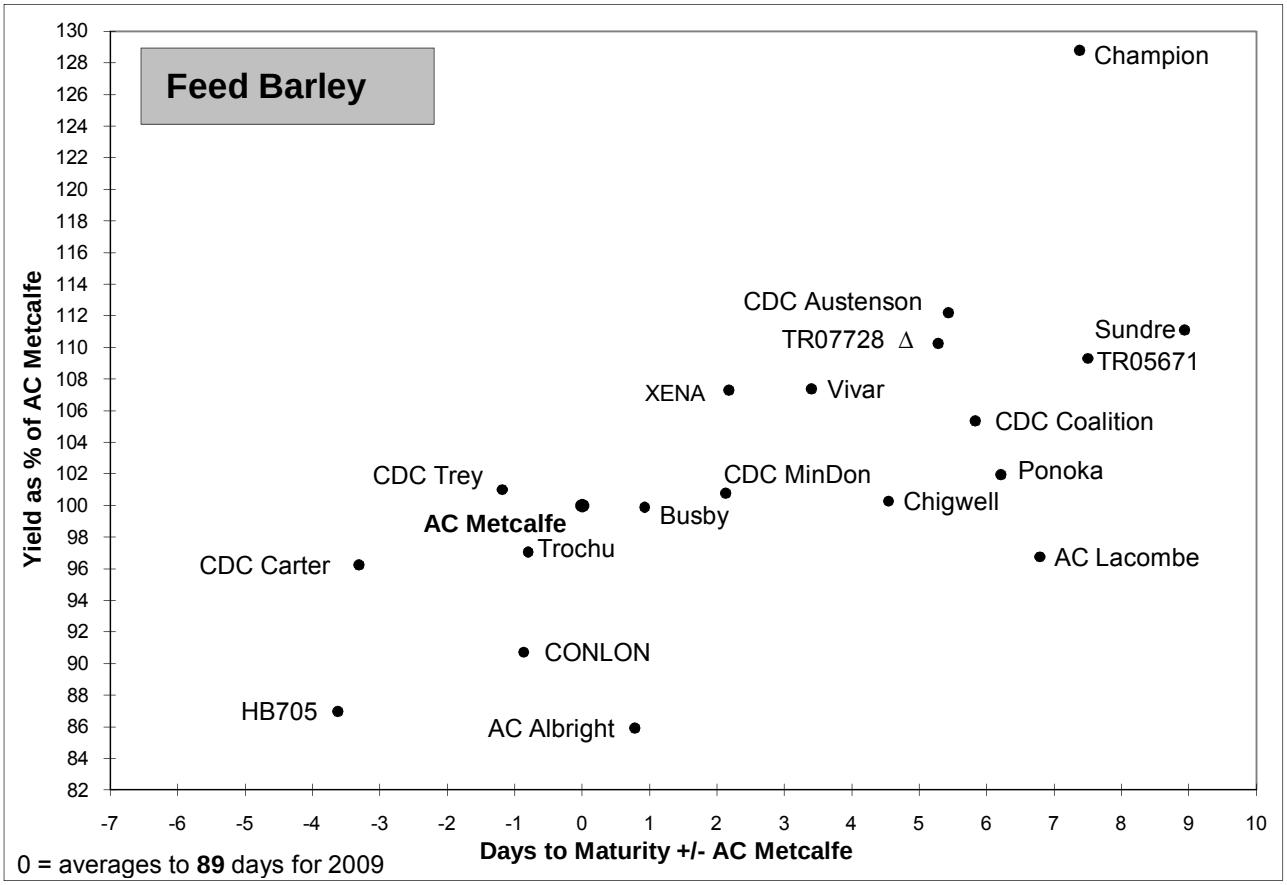
VG = very good, G = good, F = fair, P = Poor, VP = very poor

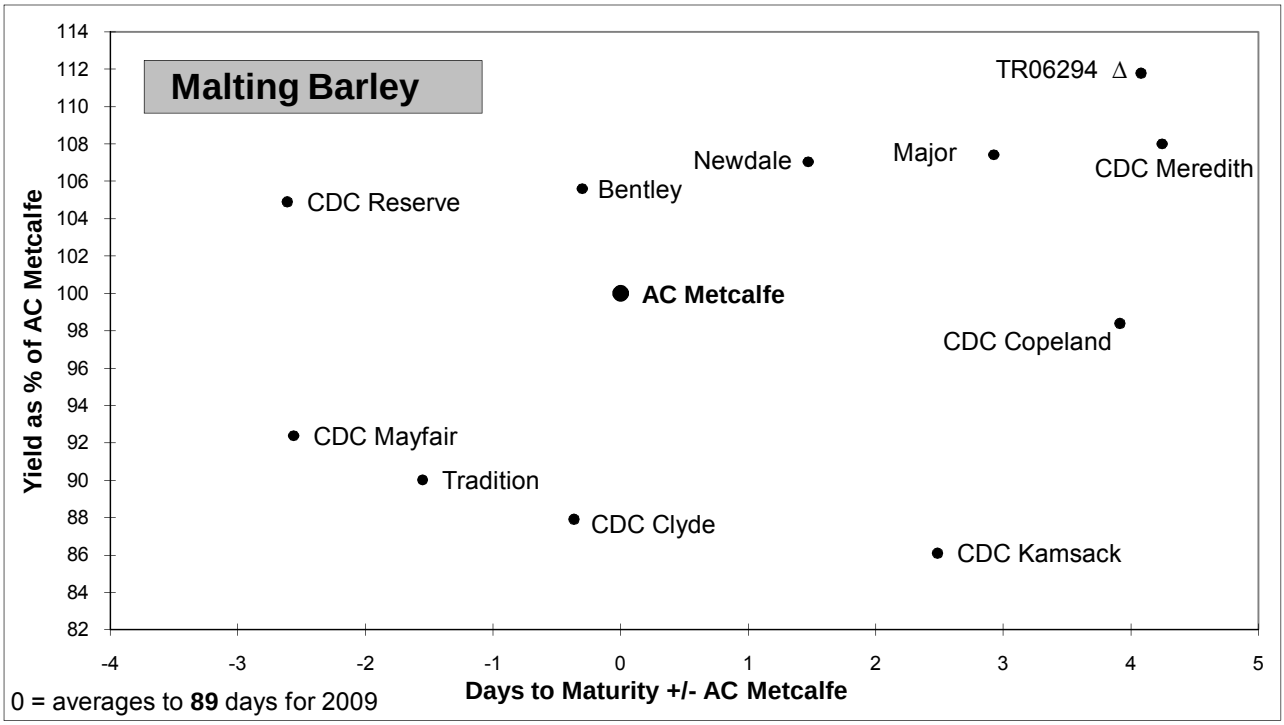
XX = insufficient data

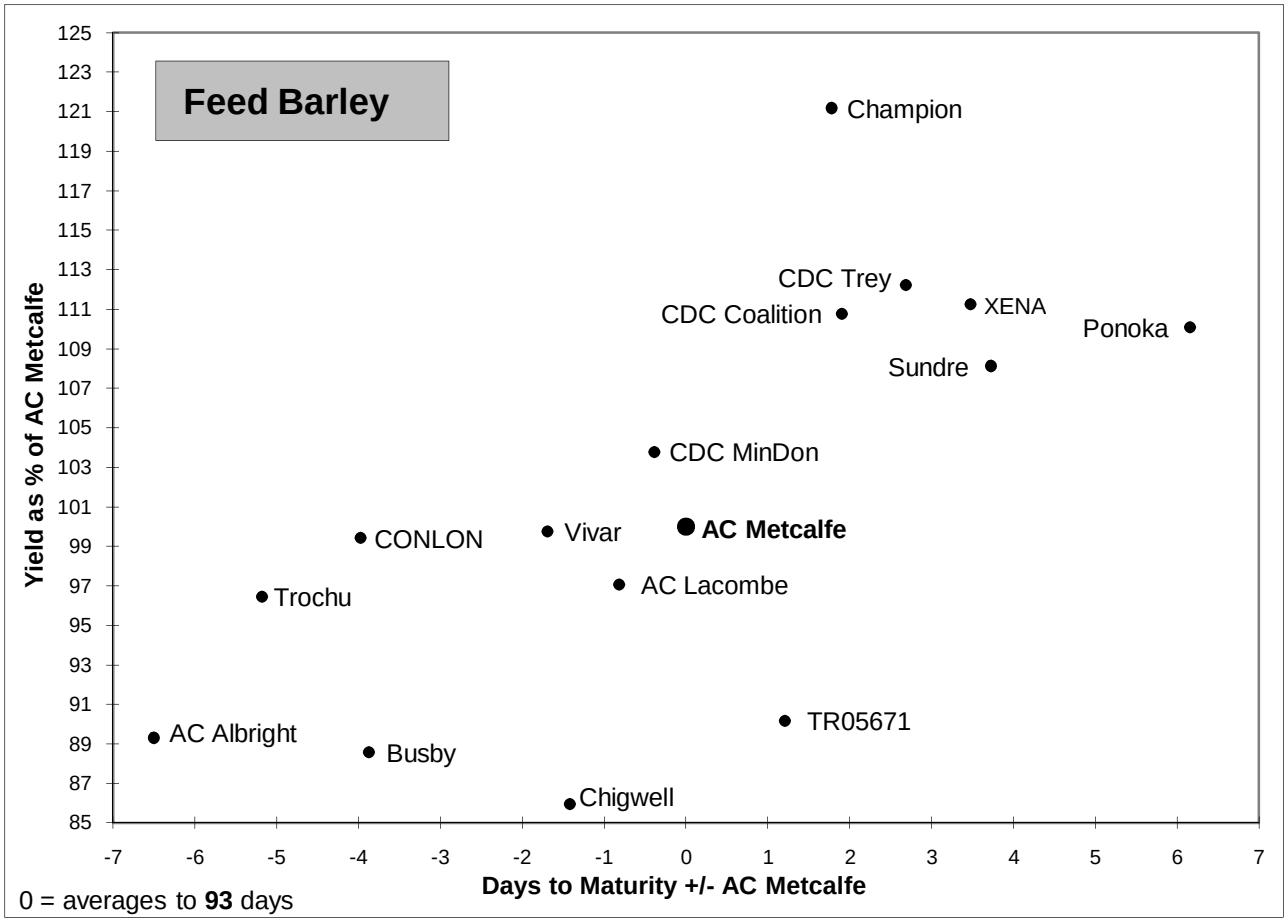
"blanked *Tolerance* data" = no data available yet (too new)

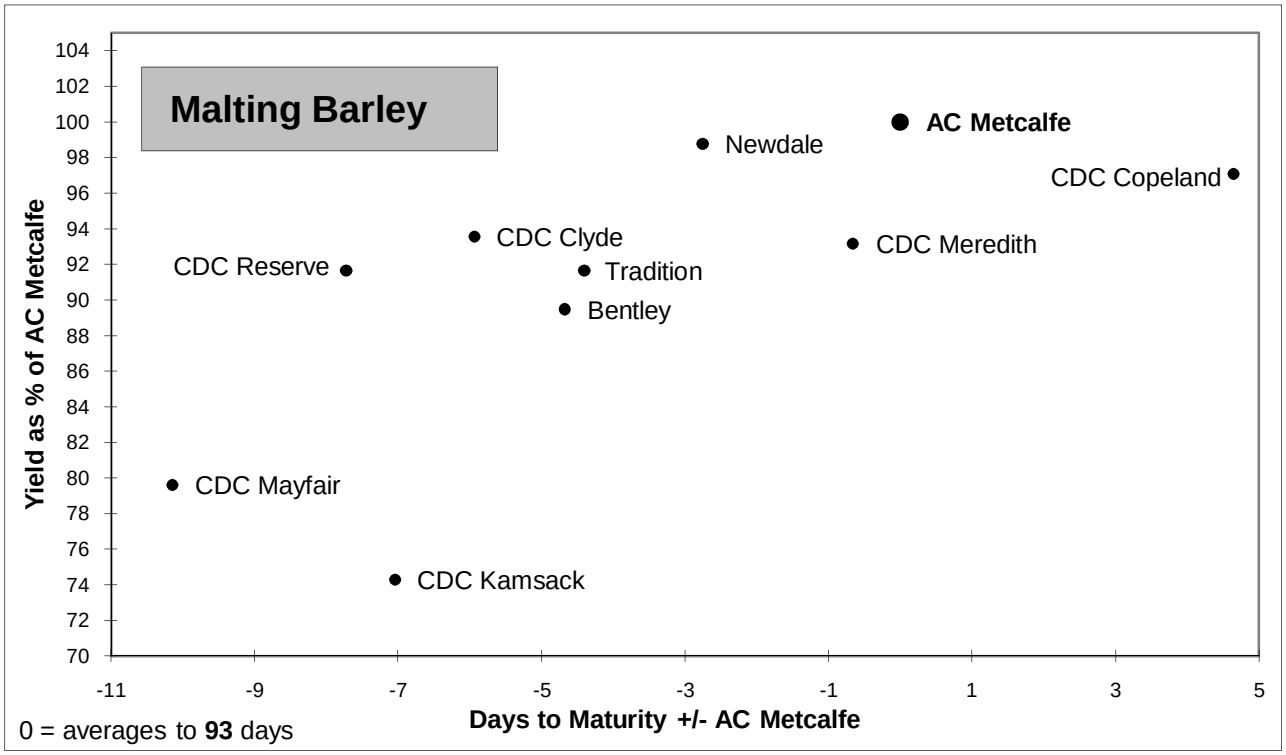
Overall average maturity for **AC Metcalfe** is **93** days.

Overall average Protein for **AC Metcalfe** is **13.5%**


Feed Barley
Champion
CDC Austenson
TR07728 Δ
Sundre
TR05671
XENA
Vivar
CDC Coalition
CDC Trey
CDC MinDon
Ponoka
AC Metcalfe
Busby
Chigwell
Trochu
CDC Carter
AC Lacombe
CONLON
HB705
AC Albright
Yield as % of AC Metcalfe
Days to Maturity +/- AC Metcalfe
0 = averages to **89** days for 2009


Malting Barley
TR06294 Δ
Newdale
Major
CDC Meredith
Bentley
CDC Reserve
AC Metcalfe
CDC Copeland
CDC Mayfair
Tradition
CDC Clyde
CDC Kamsack
Yield as % of AC Metcalfe
Days to Maturity +/- AC Metcalfe
0 = averages to **89** days for 2009


Feed Barley
Champion
CDC Trey
XENA
CDC Coalition
Ponoka
Sundre
CDC MinDon
CONLON
Vivar
AC Metcalfe
AC Lacombe
Trochu
TR05671
AC Albright
Busby
Chigwell
Yield as % of AC Metcalfe
Days to Maturity +/- AC Metcalfe
0 = averages to **93** days


Malting Barley
AC Metcalfe
Newdale
CDC Copeland
CDC Clyde
CDC Meredith
CDC Reserve
Tradition
Bentley
CDC Mayfair
CDC Kamsack
Yield as % of AC Metcalfe
Days to Maturity +/- AC Metcalfe
0 = averages to **93** days

OATS

Oats are 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". 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 in mind while comparing hulless to hulled, however currently (in this report) no hulless lines are being tested. (See earlier reports to obtain hulless oat information).

Oats — Yield as % of Cascade

Variety	Colour	Dawson Creek 2009 Yield bus / acre	Dawson Creek 2009 Yield % of check	Dawson Creek 2005 - 2009 Avg. (%)	Dawson Creek 2005 - 2009 Stn. Yrs.	Fort St. John 2009 Yield bus / acre	Fort St. John 2009 Yield % of check	Fort St. John 2005-2009 Avg. (%)	Fort St. John 2005-2009 Stn. Yrs.	B.C. Peace 2009 Avg. (%)	B.C. Peace 2005-2009 Avg. (%)	B.C. Peace 2005-2009 Stn. Yrs.
AC Morgan	White	123 ab	108	104	[5]	103 a	108	105	[5]	108	105	[10]
AC Mustang	White	130 a	113	107	[5]	112 a	118	112	[5]	116	109	[10]
Cascade	**Yellow**	**115 ab**	**100**	**100**	**[5]**	**95 a**	**100**	**100**	**[5]**	**100**	**100**	**[10]**
CDC Dancer	White	122 ab	106	93	[4]	102 a	108	98	[4]	107	96	[8]
CDC Minstrel	White	116 ab	101	95	[2]	103 a	109	102	[2]	105	98	[4]
CDC Orrin	White	117 ab	102	106	[5]	115 a	122	111	[5]	112	108	[10]
CDC ProFi	White	101 b	88	87	[3]	99 a	104	96	[3]	96	91	[6]
CDC Weaver	White	123 ab	108	98	[5]	104 a	109	105	[5]	108	101	[10]
Jordan	White	133 a	116	107	[4]	94 a	99	109	[4]	108	108	[8]
Lu	Yellow	119 ab	104	93	[5]	101 a	107	96	[5]	105	95	[10]
OA1176-1 Δ		111 ab	97	97	[1]	97 a	103	103	[1]	100	100	[2]
Triactor	White	132 a	116	117	[3]	105 a	111	108	[3]	113	113	[6]
LSD (P=.05) =		13.77				13.13						
CV value (%) =		7.94				8.87						

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

Health Benefits Of Oats

Oats are mainly used for livestock feed especially horses and cows and only a small percentage of oats has been traditionally used for human consumption. However, oats have a great source of fibre which consists of more than half as soluble fibres. Oats are 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, oats are a significant contributor to the good health of not only livestock but also to good human health as well.

Oats — Variety Descriptions

	Variety	Type	BC Peace Averages 2005 - 2009 Maturity as days +/- check	Height cm	Bushel Weight lbs/bu	Alberta Agdex 100/32 info Tolerance to: Lodging	Smuts	Distributor
	AC Morgan	Milling/Feed	4	80	41	VG	P	SeCan
	AC Mustang	Feed/forage	3	86	43	G	F	Viterra/Proven
	Cascade	**Feed**	**0**	**85**	**41**	**G**	**VP**	**Secan**
■	CDC Dancer	Milling	0	73	41	G	VG	FP Genetics
	CDC Minstrel	Milling	3	69	41	XX	VG	FP Genetics
■	CDC Orrin	Milling	4	81	42	G	VG	FP Genetics
	CDC ProFi	Milling	3	69	39	XX	P	FP Genetics
■	CDC Weaver	Milling	6	80	40	F	VG	FP Genetics
■	Jordan	Milling	8	76	40	XX	VG	SeCan
	Lu	Feed	-3	77	41	G	VG	SeCan
	OA1176-1 Δ		-1	68	39			SeCan
■	Triactor	Milling/Feed	2	73	39	XX	XX	Canterra Seeds

Cascade - check variety

■ Protected by Plant Breeders' Rights

XX = insufficient data

Overall average maturity for **Cascade** is **95** days.

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

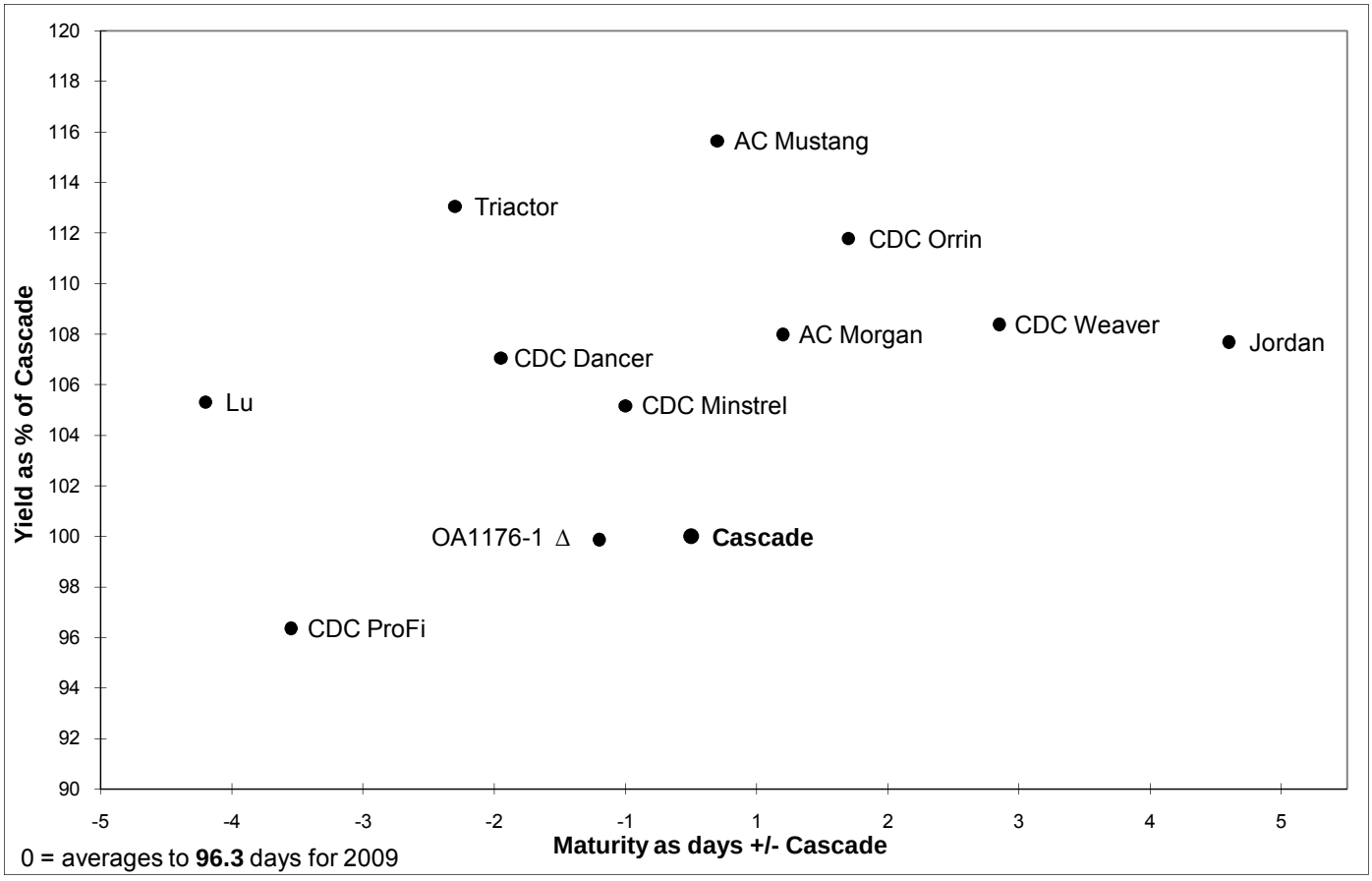
XX = insufficient data

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

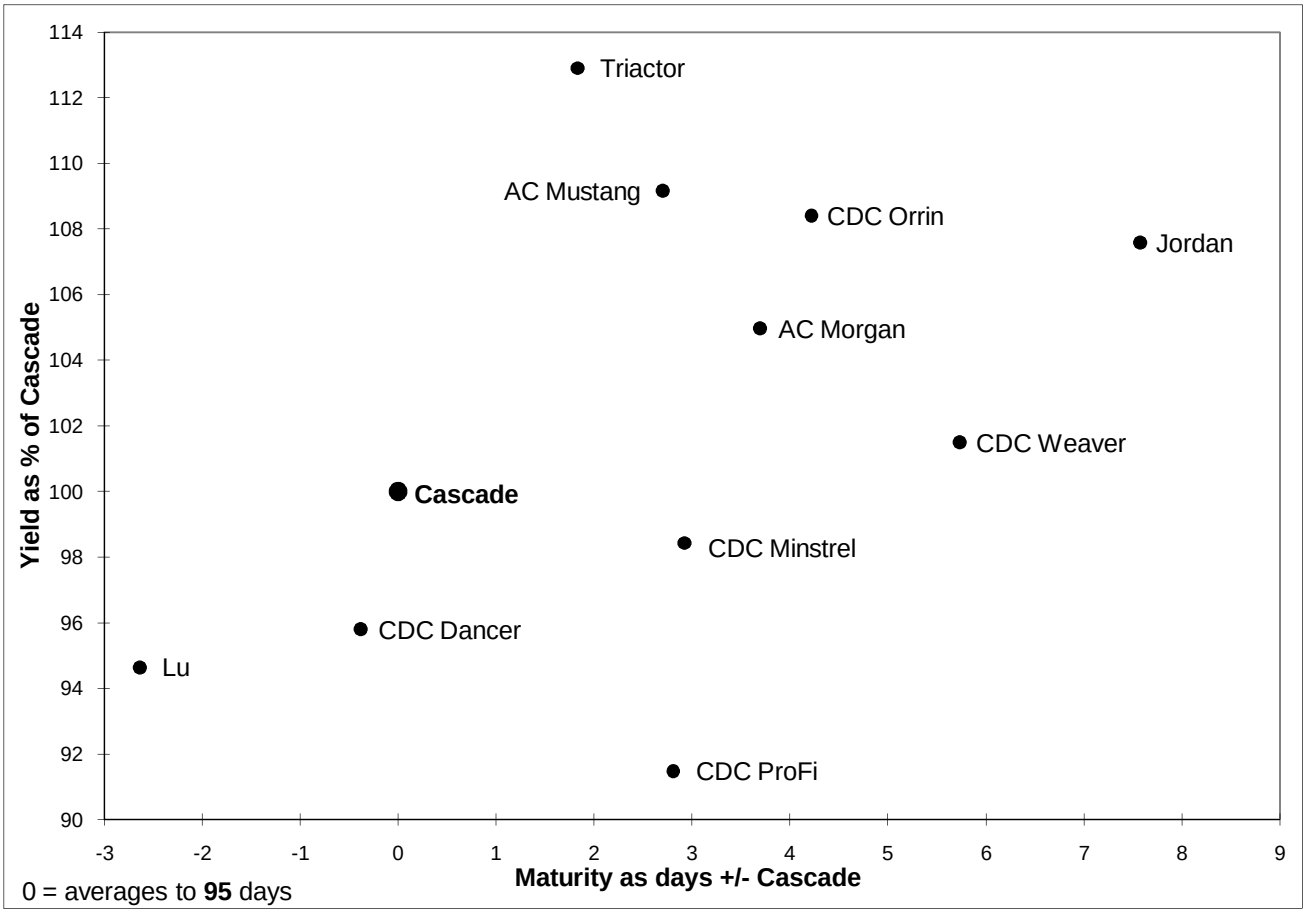
* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

Oats — Regional Variety Performance — 2009



0 = averages to **96.3** days for 2009



Oats for Feed

Oats are often sown to provide fodder in the form of silage or greenfeed. Oats will yield more silage or greenfeed per unit area than any other cereal crop. If managed properly, it can provide 3-4.5 tons of dry matter per acre, or more, of high quality feed containing up to 10 percent protein[1]. Many years of comparing yields of oats with barley have shown oats to be superior in the Black and Grey Wooded soil zones[1]. Although the percent protein level in barley is higher than in oats, the total amount of protein produced on a given area is higher with oats than with barley[1]. Oats have about 22-26 percent hull whereas barley averages about 12-14 per cent hull on a weight basis[1]. When choosing a variety, the seed yield as well as the forage yield should be considered, thereby keeping one's options open to harvest as forage or grain[1]. We do not currently evaluate oat varieties for forage yield in these tests.

Forage Oats

It is believed by some farmers that one variety might be better than another because it appears "leafier"; however, tests on a number of varieties have shown very little variation in leafiness[2]. Having said that however, such work has not likely included the newer lines of forage oats that are entering the market place now. These new "forage only" lines, such as *CDC Baler* and *Murphy*, have usually been much larger plants in our tests than their traditional counterparts developed for seed quality, which should translate to more biomass to be available for forage production. Note however, that traditionally our oat tests do not lodge and so it is unclear as to whether larger plants are going to be a concern for early lodging in a large-scale forage production practice in our area. Lodging data here is from Alberta Agdex 100/32.

Other Comments

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

Source[1,2,3]: Alberta Agriculture, Food, and Rural Development website www.agric.gov.ab.ca

SPRING TRITICALE

Triticale is a genetic cross (not a hybrid) developed by crossing wheat (*Triticum turgidum* or *Triticum aestivum*) with rye (*Secale cereal*). Most varieties of spring triticale currently available are approximately 10 days or more later maturing than CWRS wheats, 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 & oats as forage feed. 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 2009 Yield bus / acre		Dawson Creek 2009 Yield % of check	Dawson Creek 2005-2009 Avg. (%)	Dawson Creek 2005-2009 Stn. Yrs.	Fort St. John 2009 Yield bus / acre		Fort St. John 2009 Yield % of check	Fort St. John 2005-2009 Avg. (%)	Fort St. John 2005-2009 Stn. Yrs.	B.C. Peace 2008 Avg. (%)	B.C. Peace 2005-2009 Avg. (%)	B.C. Peace 2005-2009 Stn. Yrs.
AC Alta	61	a	109	101	[4]	97	a	103	105	[4]	13	103	[8]
AC Ultima	54	a	96	111	[5]	92	ab	98	94	[5]	1	102	[10]
Bunker	55	a	98	88	[4]	90	b	96	90	[4]	6	89	[8]
Pronghorn	**56**	**a**	**100**	**100**	**[5]**	**94**	**ab**	**100**	**100**	**[5]**	**0**	**100**	**[10]**
T196 Δ	63	a	112	112	[1]	92	ab	98	98	[1]	0	105	[2]
Tyndal	61	a	109	124	[4]	93	ab	99	101	[4]	2	113	[8]
LSD (P=.05) =	7.97					3.84							
CV value (%) =	9.04					2.73							

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

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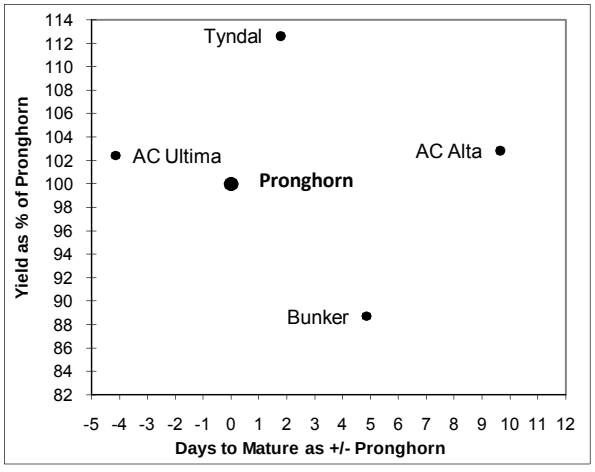
Spring Triticale — Variety Descriptions

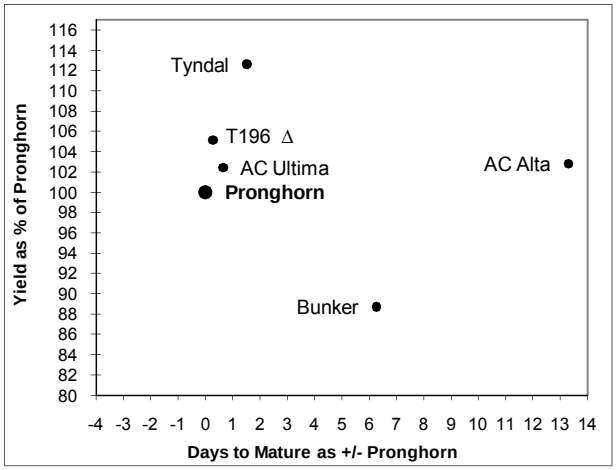
	Variety	Maturity as days +/- check	Height (cm)	Bushel Weight (lbs/bus)	TKW (g / 1000)	Distributor
	AC Alta	10	82	55	52	Progressive Seeds
	AC Ultima	-4	83	57	44	FP Genetics
■	Bunker	5	83	57	47	FP Genetics
	Pronghorn	**0**	**84**	**56**	**43**	**Progressive Seeds**
	T196 Δ	0	66	59	42	SeCan
■	Tyndal	2	79	57	42	SeCan

Regional Variety Performance 2005-2009



Average long-term maturity for **Pronghorn** is **115** days.

Regional Variety Performance 2009

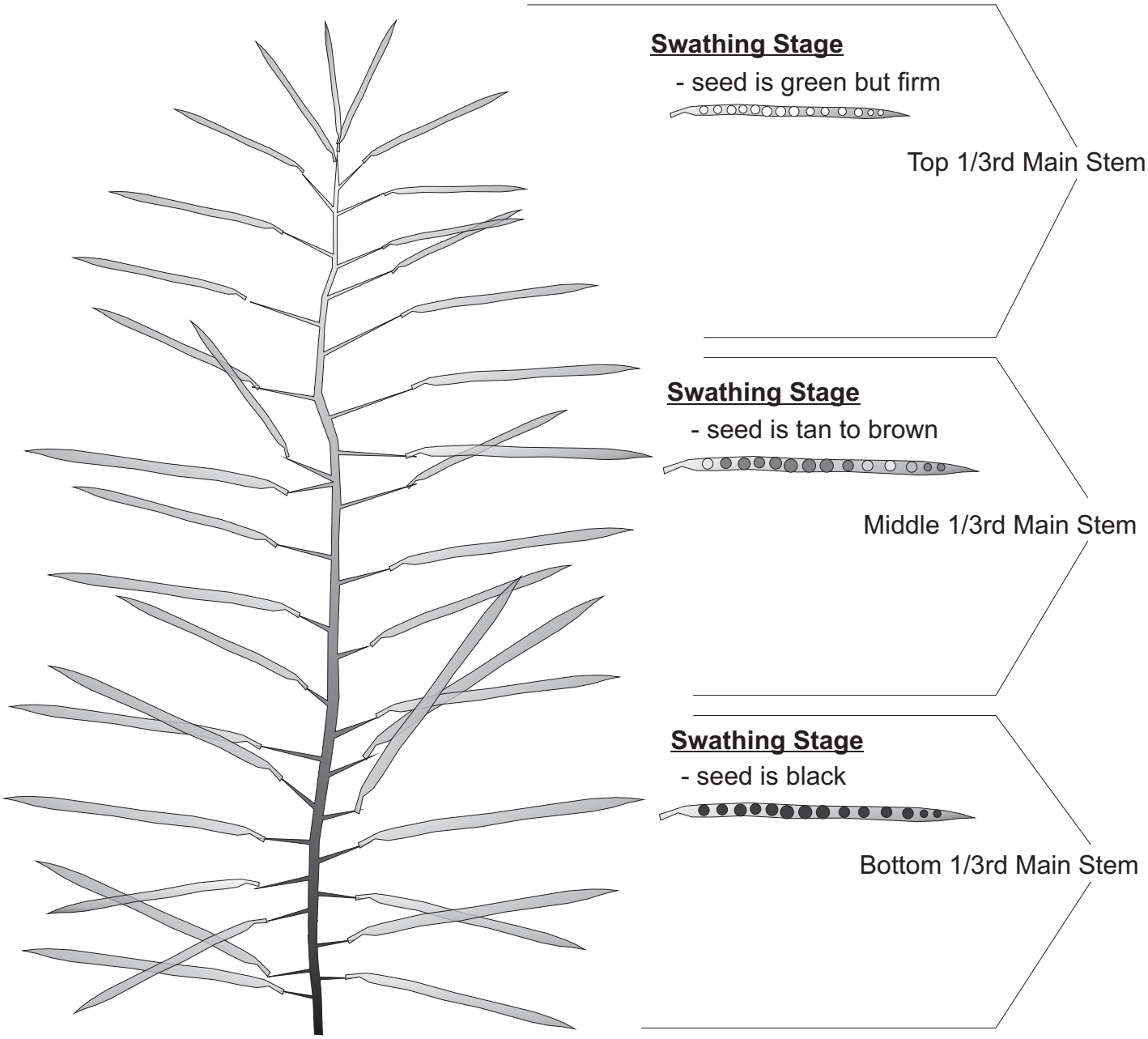


2009 days to maturity for **Pronghorn** is **104** days

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.



Pests of Peace River Region Canola

Good News from 2009 is that soil samples from throughout the BC Peace were tested for clubroot of canola, and all were found clean of the disease. The samples from August 2009 were examined using the sensitive PCR test (for DNA) at the BC MAL Plant Diagnostic lab. As in the Olympics, a clean lab test can't be a guarantee of no problem, but so far 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. It is present in hundreds of fields in Alberta. The closest known infested fields are in the Edmonton area, but clubroot could easily be transferred from there to here, with a little bit of soil.

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 and Best Management Practices for Disinfesting Farm 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 BC MAL 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 last year's "Pest" article it this spot in the BCGPA Variety Trials book.

Contact the BC Agriculture office if you want more information about monitoring for or controlling these pests. Kerry.clark@gov.bc.ca *Crop Protection Specialist*

Argentine Canola — Yield as % of 45H21

Variety	Type	Dawson Creek 2009 % of check	Dawson Creek 2006-2009 Avg. (%)	Dawson Creek 2006-2009 Stn. Yrs.	Fort St. John 2009 % of check	Fort St. John 2006-2009 Avg. (%)	Fort St. John 2006-2009 Stn. Yrs.	B.C. Peace 2009 Avg. (%)	B.C. Peace 2006-2009 Avg. (%)	B.C. Peace 2006-2009 Stn. Yrs.
46A65	conventional	83	93	[5]	80	85	[5]	81	86	[10]
Peace	conventional	82	82	[3]	70	69	[3]	76	77	[6]
1852H	Roundup Ready®	100	97	[2]	91	91	[2]	95	94	[4]
4362 RR	Roundup Ready®	94	95	[2]	89	93	[2]	92	94	[4]
43E01 *	Roundup Ready®	101	101	[1]	93	93	[1]	97	97	[2]
43H57	Roundup Ready®	93	86	[2]	89	87	[2]	91	87	[4]
4414 RR	Roundup Ready®	95	100	[2]	93	99	[3]	94	100	[5]
45H21	**Roundup Ready®**	**100**	**100**	**[9]**	**100**	**100**	**[10]**	**100**	**100**	**[19]**
45H25	Roundup Ready®	94	100	[3]	104	101	[3]	99	100	[6]
45H26	Roundup Ready®	109	112	[3]	104	107	[3]	106	108	[6]
45H28 *	Roundup Ready®	104	104	[1]	110	110	[1]	107	107	[2]
45H29 *, ***	Roundup Ready®	112	112	[1]	113	113	[1]	112	112	[2]
46P50	Roundup Ready®	110	119	[2]	109	115	[3]	110	117	[5]
6020 RR	Roundup Ready®	103	101	[2]	92	91	[2]	98	96	[4]
71-45 RR	Roundup Ready®	121	108	[3]	107	115	[3]	114	111	[6]
72-35 RR *	Roundup Ready®	92	92	[1]	93	93	[1]	93	93	[2]
9350 *	Roundup Ready®	103	103	[1]	92	92	[1]	98	98	[2]
93H01RR *	Roundup Ready®	95	95	[1]	96	96	[1]	96	96	[2]
9553 *	Roundup Ready®	108	108	[1]	109	109	[1]	109	109	[2]
997 RR	Roundup Ready®	94	95	[2]	83	93	[3]	88	94	[5]
Café	Roundup Ready®	85	87	[2]	85	90	[2]	85	89	[4]
D3150	Roundup Ready®	102	102	[1]	100	107	[2]	101	104	[3]
D3151	Roundup Ready®	107	107	[1]	101	101	[2]	104	104	[3]
H6087 Δ	Roundup Ready®	83	83	[1]	87	87	[1]	85	85	[2]
Rugby	Roundup Ready®	94	104	[2]	82	91	[2]	88	98	[4]
SP DESIRABLE RR	Roundup Ready®	96	103	[3]	99	96	[3]	97	99	[6]
5020	LibertyLink®	98	102	[7]	104	103	[7]	101	104	[14]
5030	LibertyLink®	110	117	[3]	96	109	[4]	103	115	[7]
5440	LibertyLink®	115	118	[2]	111	119	[2]	113	118	[4]
5770 *	LibertyLink®	102	102	[1]	105	106	[1]	103	103	[2]
8440	LibertyLink®	96	100	[2]	114	112	[2]	105	106	[4]
9590	LibertyLink®	106	107	[2]	112	115	[2]	109	111	[4]
PHS07-526 ** Δ	LibertyLink®	103	103	[1]	105	105	[1]	104	104	[2]
30423-C7 Δ	Clearfield®	101	101	[1]	94	94	[1]	97	97	[2]
45H73	Clearfield®	96	103	[3]	101	100	[3]	99	98	[6]
45P70	Clearfield®	98	104	[2]	100	104	[3]	99	104	[5]
5525 CL	Clearfield®	106	102	[2]	100	100	[2]	103	101	[4]

45H21 - check variety

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

Δ = 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 three napus trials with a common check) and thus, conventional herbicides are used for weed control. (See page 6 for herbicides used). However, combining the three 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 2009 were as follows: DC = 8.57, 9.94, 6.47 FSJ = 7.55, 6.85, 8.98

Argentine Canola

Variety Descriptions

	Variety	Type	Herbicide Tolerance	B.C. Peace Avg. Days to Swathing[1] as +/- check 2009	B.C. Peace Avg. Days to Swathing[1] as +/- check 2006-2009	Alberta Agdex 100/32 Lodging 0 = avr + = better	Canola Council of Canada Blackleg Rating	Distributor
■	46A65	OP	conventional	4.0	3.0	0	R	Pioneer Hi-Bred
■	Peace	OP	conventional	-4.5	-3.3	0	MR	Viterra/Proven
	1852H	HYB	Roundup Ready®	2.5	1.0	0	R	Canterra
	4362 RR	HYB	Roundup Ready®	2.5	1.5	0	MR	BrettYoung
	43E01 *	HYB	Roundup Ready®	-3.5	-4.5	-2	MR	Pioneer Hi-Bred
	43H57	HYB	Roundup Ready®	-3.0	-2.0	0	MR	Pioneer Hi-Bred
	4414 RR	HYB	Roundup Ready®	4.0	3.3	0	R	BrettYoung
	45H21	**HYB**	**Roundup Ready®**	**0.0**	**0.0**	**0**	**R**	**Pioneer Hi-Bred**
	45H25	HYB	Roundup Ready®	1.5	0.5	0	R	Pioneer Hi-Bred
	45H26	HYB	Roundup Ready®	-0.5	-1.0	0	R	Pioneer Hi-Bred
	45H28 *	HYB	Roundup Ready®	0.5	-0.5	0	R	Pioneer Hi-Bred
	45H29 *, ***	HYB	Roundup Ready®	1.0	1.5	XX	R	Pioneer Hi-Bred
	46P50	HYB	Roundup Ready®	4.0	4.3	0	R	Viterra/Proven
	6020 RR	HYB	Roundup Ready®	7.3	7.8	0	MR	BrettYoung
	71-45 RR	HYB	Roundup Ready®	3.5	2.3	0	MR	Monsanto
	72-35 RR *	HYB	Roundup Ready®	-1.5	-1.0	XX	MR	Monsanto
	9350 *	HYB	Roundup Ready®	-1.5	-2.5	-1	MR	Viterra/Proven
	93H01RR *	HYB	Roundup Ready®	6.0	6.5	0	MR	FP Genetics
	9553 *	HYB	Roundup Ready®	2.5	1.5	0	R	Viterra/Proven
	997 RR	OP	Roundup Ready®	1.0	1.7	0	R	BrettYoung
■	Café	OP	Roundup Ready®	0.0	-1.5	0	R	SeCan
	D3150	HYB	Roundup Ready®	4.0	4.1	0	MR	DuPont Canada
	D3151	HYB	Roundup Ready®	1.0	0.1	0	MR	DuPont Canada
	H6087 Δ	HYB	Roundup Ready®	3.5	4.0	0	MR	BrettYoung
■	Rugby	OP	Roundup Ready®	0.0	0.4	0	R	SeCan
	SP DESIRABLE RR	SYN	Roundup Ready®	1.5	-0.3	0	R	Viterra/Proven
	5020	HYB	LibertyLink®	-0.5	-0.3	0	R	Bayer Crop Science
	5030	HYB	LibertyLink®	1.5	1.9	1	R	Bayer Crop Science
	5440	HYB	LibertyLink®	2.0	2.3	1	R	Bayer Crop Science
■	*5770* *	HYB	LibertyLink®	6.0	6.5	1	R	Bayer Crop Science
	8440	HYB	LibertyLink®	2.0	0.8	0	R	Bayer Crop Science
	9590	HYB	LibertyLink®	1.5	0.8	0	R	Bayer Crop Science
	PHS07-526 ** Δ	HYB	LibertyLink®	3.0	3.5	0	R	Bayer Crop Science
■	*30423-C7* Δ	SYN	Clearfield®	4.5	5.0	1	R	BrettYoung
	45H73	HYB	Clearfield®	2.0	0.0	0	R	Pioneer Hi-Bred
■	45P70	HYB	Clearfield®	2.5	2.1	0	R	Viterra/Proven
	5525 CL	HYB	Clearfield®	4.5	5.0	0	R	BrettYoung

■ Protection by Plant Breeders' Rights

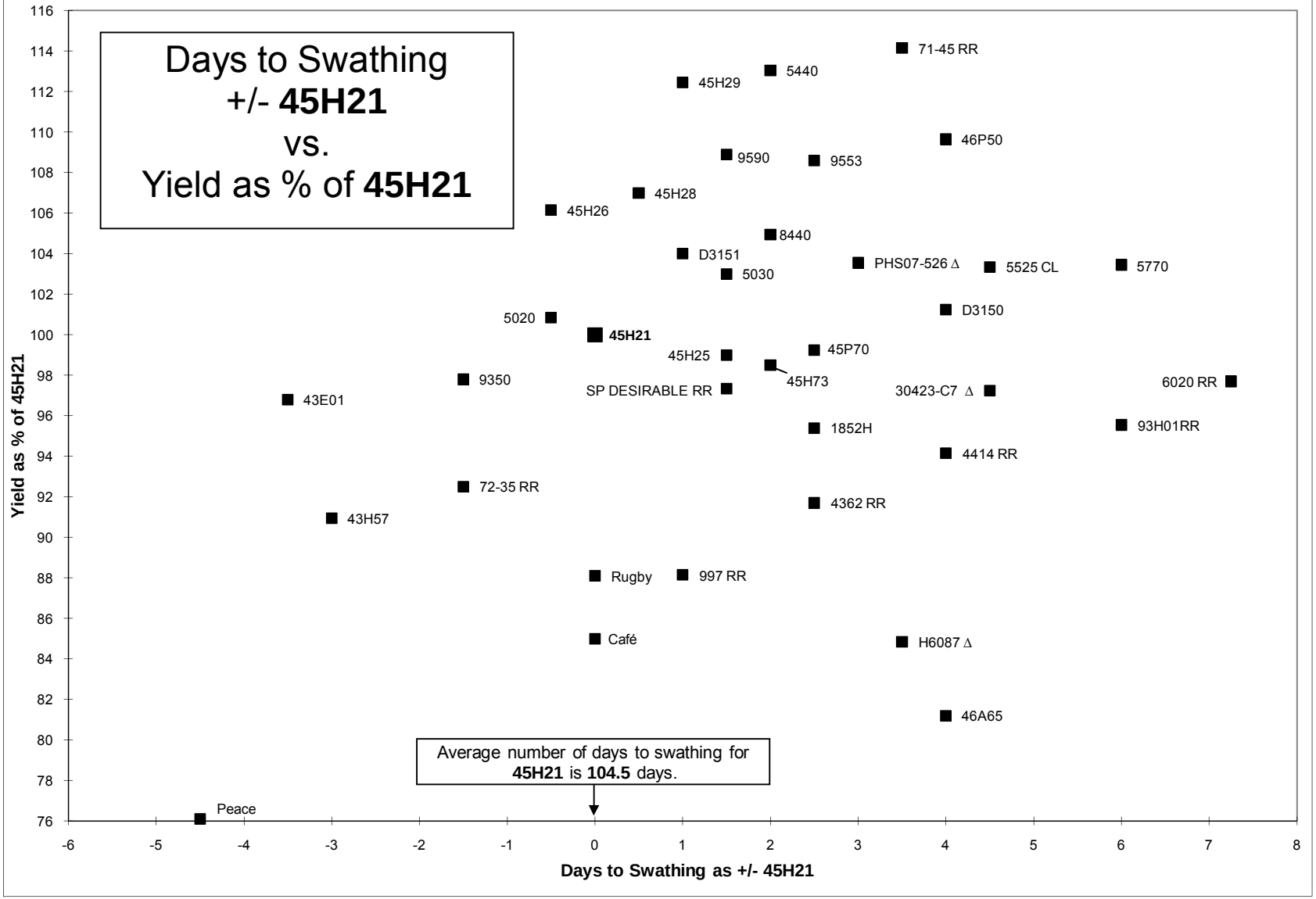
* caution, first year tested and/or very limited data.

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

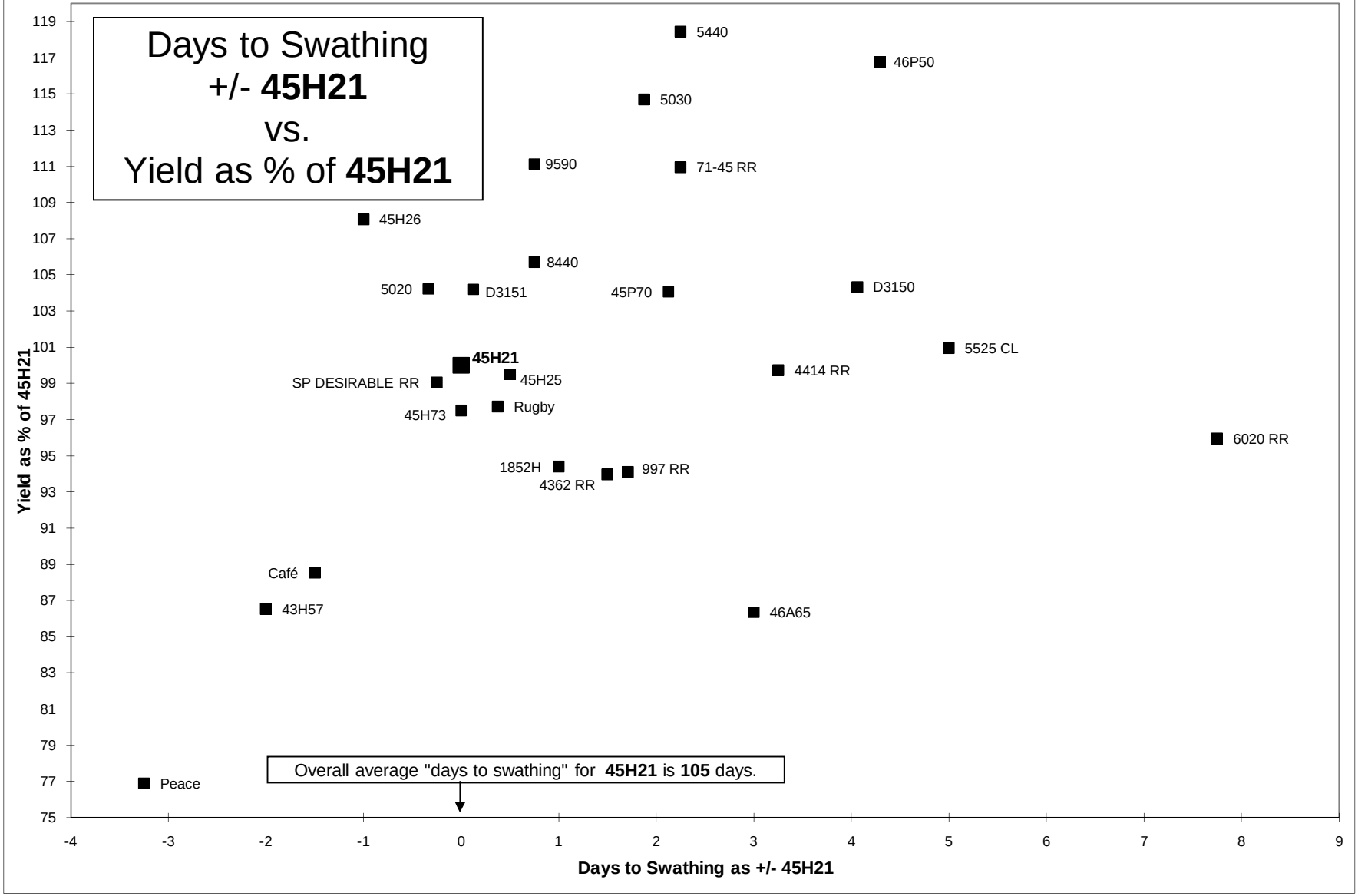
Overall average "days to *swathing"*[1] for **45H21** is **105** days.

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 21.
* caution, first year tested and or very limited data available
Δ = not currently registered
** specialty oil
*** Club-root Resistance

Argentine Canola Variety Performance 2009



Argentine Canola Variety Performance 2006-2009

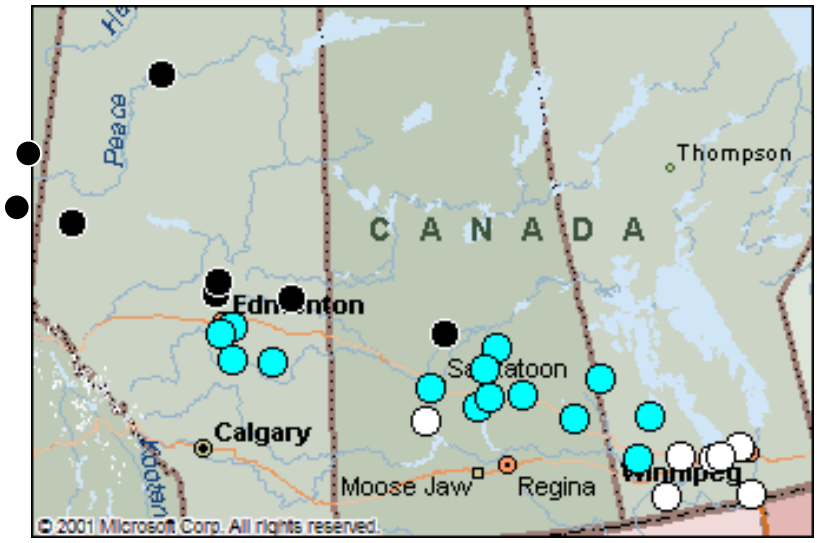


Prairie Canola Variety Testing (PCVT) Program

Background Information:
The Prairie Canola Variety Testing (PCVT) program entered its seventh year in 2009. The testing system unites the provincial variety testing programs to standardize protocol and improve trial consistency and quality. Now growers can look to a single source of information on how a canola variety performed in three different zones across western Canada. The Canola Council of Canada, canola seed industry, Western Canada Canola /Rapeseed Recommending Committee, Saskatchewan Agriculture, Manitoba Agriculture Food and Rural Initiatives, Alberta Agriculture and Rural Development, Agriculture and Agri-Food Canada contributed to the development and operation of the PCVT. Trials were conducted by seed companies, government researchers and independent contractors in three growing zones across the prairies: short-, mid- and long-season zones (see map).

Interpreting PCVT information:
Use the map to identify your zone of adaptation. For site-specific data please refer to the Canola Digest or the Canola Council of Canada website. Don't limit your search to the areas closest to you. Comparing local results to other locations with similar growing conditions can also be valuable. The table shows variety yield as a percent relative to the check variety or varieties. Although variety trials are carefully conducted, small percentage differences (e.g. <5%) in yield are usually insignificant. Least significant differences (LSD) at the bottom of the zone yield columns show what difference is needed to be 95% confident they are real and not due to chance. The table includes information on maturity, resistance to lodging, blackleg resistance, varietal type (open-pollinated, hybrid, synthetic) and herbicide tolerance. Use this information in addition to yield to choose a variety.

Traditional PCVT Locations:



O LONG SEASON
MID SEASON
SHORT SEASON

Note: Locations used per year varies depending on acceptance of data generated at each site.

In 2009 all data generated from both Fort St. John and Dawson Creek, BC (four trials in all), were accepted for the Short-Season Zones of the PCVT system.

The Canola POD:
The Canola POD, or Performance On-line Database (http://www.canola-council.org/pod), was developed by the Canola Council of Canada to allow farmers to explore canola performance trial results from a broad range of sources in their own area. In addition to the Prairie Canola Variety Trial results, POD provides access to private seed company performance trial information that often includes more detailed information, such as notes on site management.

The above information was provided by *Alberta Agriculture and Rural Development* and the *Canola Council of Canada*, December 2008

2009 Prairie-Wide Canola Variety Testing - ALL ZONE SUMMARY

The information below was provided by *Alberta Agriculture and Rural Development* and the *Canola Council of Canada* , Dec 2009.

Variety B. napus (Argentine)		2007 Yield % of 45H21, 5020 All Zones Avg	2008 Yield % of 45H21, 5020 All Zones Avg	2009 Yield % of 45H21, 5020 Zones (Station Years)				2009 Days to Maturity +/- days to 45H21, 5020 Zones				Height	Lodging	Blackleg Rating	Organization
				Short (8)	Mid (14)	Long (10)	All Zone Average	short	mid	long	All Zones	+/- inches	rating +="better"		
Checks	Type														
45H21, 5020	Hyb	100	100	100	100	100	0	0	0	0	0	0	0		
(Checks bu/ac, days to mature)				47	62	69		106	105	107					
CLEARFIELD															
5525 CL	Hyb			103	102	100	102	3	3	3	3	4	1	R	BrettYoung
1651H	Hyb				89	85	88		2	2	2	3	0	R	Canterra Seeds
45H73	Hyb	98	99	93	97	99	97	1	1	0	1	1	0	R	Pioneer Hi-Bred Production Ltd.
45P70	Hyb	102	98	97	98	98	97	1	2	1	2	1	0	R	Viterra Inc.
LIBERTY LINK															
5020	Hyb	101	105	102	102	103	102	-1	-1	-1	-1	-1	0	R	Bayer CropScience
5030	Hyb	114	108	108	104	114	108	1	0	1	1	5	1	R	Bayer CropScience
5440	Hyb	115	110	118	105	117	112	1	0	1	1	3	1	R	Bayer CropScience
5770	Hyb			112	107	121	113	4	3	3	4	3	1	R	Bayer CropScience
8440	Hyb	107	108	105	103	109	105	2	0	0	0	0	0	R	Bayer CropScience
9590	Hyb	107	106	102	104	106	104	2	0	0	1	2	0	R	Bayer CropScience
ROUNDUP READY															
6020 RR	Hyb			100	93	102	98	5	3	3	3	0	0	MR	BrettYoung
6040 RR	Hyb				94	103	98		1	1	1	2	0	R	BrettYoung
1950	Hyb				94	94	94		2	2	2	2	0	MR	Canterra Seeds
1956	Syn				98	95	97		2	2	2	1	0	R	Canterra Seeds
1852H	Hyb	94		94	94	84	91	1	-1	-1	0	2	0	R	Canterra Seeds
v1037**	Hyb		94		93	89	91		1	0	1	2	0	R	Cargill Specialty Canola Oil
93H01RR	Hyb			96	94	93	94	3	1	1	2	2	0	MR	FP GENETICS
71-45 RR	Hyb		97	102	98	94	98	1	-1	0	0	1	0	MR	Monsanto Canada Inc.
45H21	Hyb	99	95	98	98	97	98	1	1	1	1	1	0	R	Pioneer Hi-Bred Production Ltd.
43E01	Hyb		90	91			91	-2			-2	-2	-2	MR	Pioneer Hi-Bred Production Ltd.
45H26	Hyb	101	99	99	101	98	100	2	1	1	1	2	0	R	Pioneer Hi-Bred Production Ltd.
45H28	Hyb		100	102	99	100	100	2	1	2	2	1	0	R	Pioneer Hi-Bred Production Ltd.
D3150	Hyb		96	100	97	98	98	3	1	1	2	2	0	MR	Pioneer Hi-Bred Production Ltd.
D3151	Hyb		95	97	100	97	98	1	0	-1	0	1	0	MR	Pioneer Hi-Bred Production Ltd.
Café	OP	76	82	81			81	-1			-1	-2	0	R	Secan
Rugby	OP	89	86	84	89		87	1	0		0	0	0	R	Secan
9350	Hyb			93			93	-1			-1	-2	-1	MR	Viterra Inc.
9553	Hyb		97	105	102	100	102	2	2	1	2	2	0	R	Viterra Inc.
9555	Syn				95		95		2		2	2	0	R	Viterra Inc.
46P50	Hyb	103	96	103	100	102	101	3	3	3	3	3	0	R	Viterra Inc.
SP DESIRABLE RR	Syn	88		92			92	1			1	1	0	R	Viterra Inc.
LSD (5%)				12	12	13	12								

** Specialty oil

Type: OP - open pollinated; Syn - synthetic; and Hyb - hybrid.

Every year British Columbia participates within the PCVT system by supplying data from two BC sites; Dawson Creek and Fort St. John. However, for production of canola data within BC there are two additional canola trials that make up our annual dataset. This has the affect of disclosing even more varieties than that offered from just the PCVT system. Refer to pages 23 - 26 for such data. The PCVT is a valuable system for the BC Grain Producers Association to be a part of and allows us to see new materials that we might otherwise miss.

FIELD PEAS

Field Pea (Green Seed)

Yield as % of Nitouche

Variety	**Designated Powdery Mildew Resistant	Dawson Creek 2009 Yield bus / acre		Dawson Creek 2009 Yield % of check	Dawson Creek 2004-2009 Avg. (%)	Dawson Creek 2004-2009 Stn. Yrs.	Fort St. John 2009 Yield bus / acre		Fort St. John 2009 Yield % of check	Fort St. John 2004-2009 Avg. (%)	Fort St. John 2004-2009 Stn. Yrs.	B.C. Peace 2009 Avg. (%)	B.C. Peace 2004-2009 Avg. (%)	B.C. Peace 2004-2009 Stn. Yrs.
Camry	VG	82	b	117	97	[5]	54	a	103	103	[5]	110	100	[10]
CDC Patrick	VG	80	b	114	107	[2]	52	ab	99	113	[2]	107	110	[4]
CDC Striker	P	72	c	103	90	[5]	49	b	94	100	[5]	98	95	[10]
Cooper	VG	89	a	127	113	[5]	56	a	107	104	[5]	117	109	[10]
Cutlass *(yellow)*	VG	82	b	116	107	[2]	55	a	106	114	[2]	111	110	[4]
Mendel	VG	79	b	112	106	[2]	53	a	103	110	[2]	107	108	[4]
Nitouche	**P**	**70**	**c**	**100**	**100**	**[5]**	**52**	**ab**	**100**	**100**	**[5]**	**100**	**100**	**[10]**
LSD (P=.05) =		4.12					3.10							
CV value (%) =		3.51					3.93							

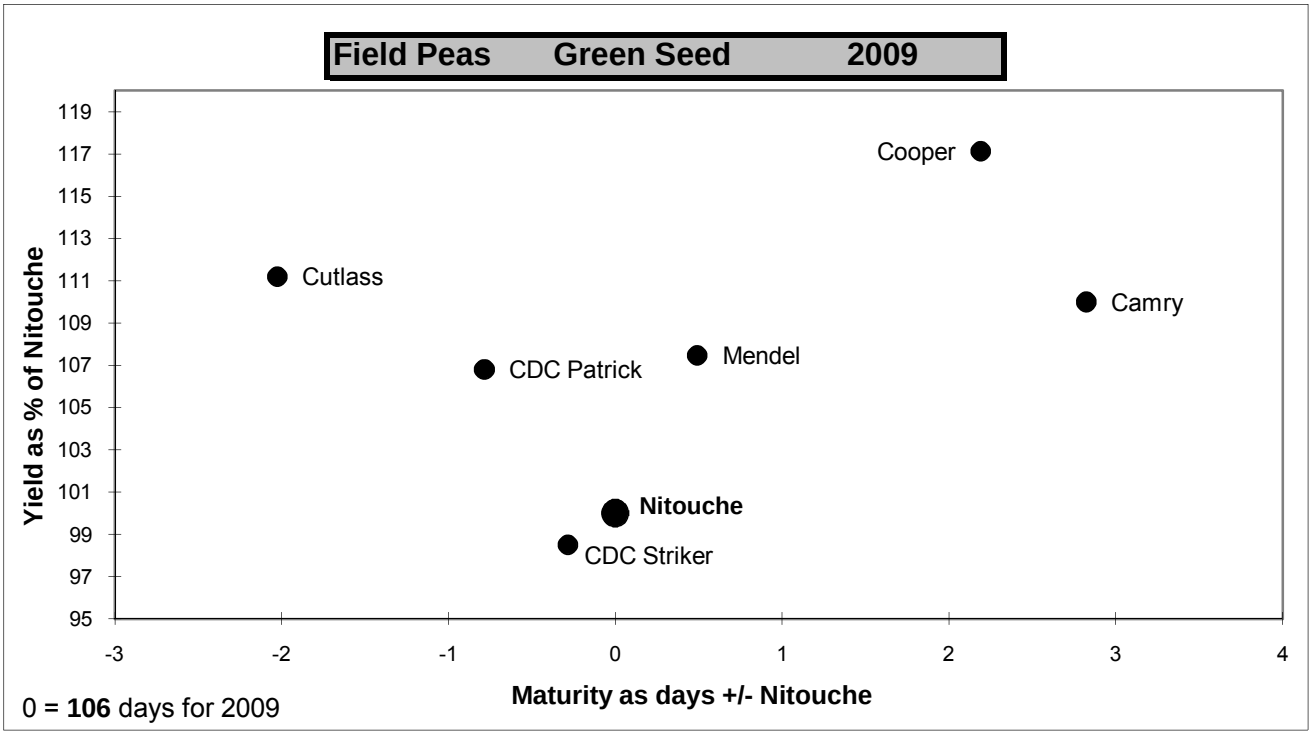
Means followed by the same letter do not significantly differ (P=.05, LSD)

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

Nitouche - check variety



Field Pea (Yellow Seed)

Yield as % of Cutlass

Variety	**Designated Powdery Mildew Resistant	Dawson Creek 2009 Yield bus / acre		% of check	Dawson Creek 2004-2009 Avg. (%)	Stn. Yrs.	Fort St. John 2009 Yield bus / acre		% of check	Fort St. John 2004-2009 Avg. (%)	Stn. Yrs.	B.C. Peace 2009 Avg. (%)	B.C. Peace 2004-2009 Avg. (%)	Stn. Yrs.
Agassiz	VG	61	ab	102	107	[2]	57	ab	104	98	[3]	103	102	[5]
Canstar	VG	64	ab	107	107	[3]	55	ab	101	92	[4]	104	100	[7]
CDC 1749-8 Δ	VG	70	a	117	117	[1]	58	ab	106	106	[1]	111	111	[2]
CDC Bronco	VG	66	ab	109	107	[3]	54	ab	99	95	[4]	104	101	[7]
CDC Centennial	VG	66	ab	110	102	[3]	58	ab	105	95	[4]	108	98	[7]
CDC Golden	VG	58	ab	96	93	[4]	52	ab	94	94	[5]	95	93	[9]
CDC Meadow	VG	56	b	93	104	[4]	53	ab	96	98	[5]	95	101	[9]
CDC Prosper	VG	59	ab	98	98	[1]	54	ab	98	96	[2]	98	97	[3]
CDC Treasure	VG	57	ab	94	94	[1]	53	ab	96	98	[2]	95	96	[3]
Cutlass	**VG**	**60**	**ab**	**100**	**100**	**[5]**	**55**	**ab**	**100**	**100**	**[5]**	**100**	**100**	**[10]**
Eclipse	VG	61	ab	102	92	[4]	60	ab	109	97	[5]	105	95	[9]
Hugo	VG	69	ab	115	115	[1]	65	a	118	108	[2]	117	112	[3]
Polstead	VG	70	a	117	106	[3]	60	ab	109	96	[4]	113	101	[7]
Reward	VG	59	ab	99	103	[2]	49	b	90	91	[3]	94	97	[5]
SW MIDAS	VG	56	b	93	97	[4]	50	b	92	88	[5]	93	92	[9]
Thunderbird	VG	61	ab	102	106	[2]	53	ab	97	94	[3]	99	100	[5]
LSD (P=.05) =		7.75					8.16							
CV value (%) =		8.74					10.35							

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

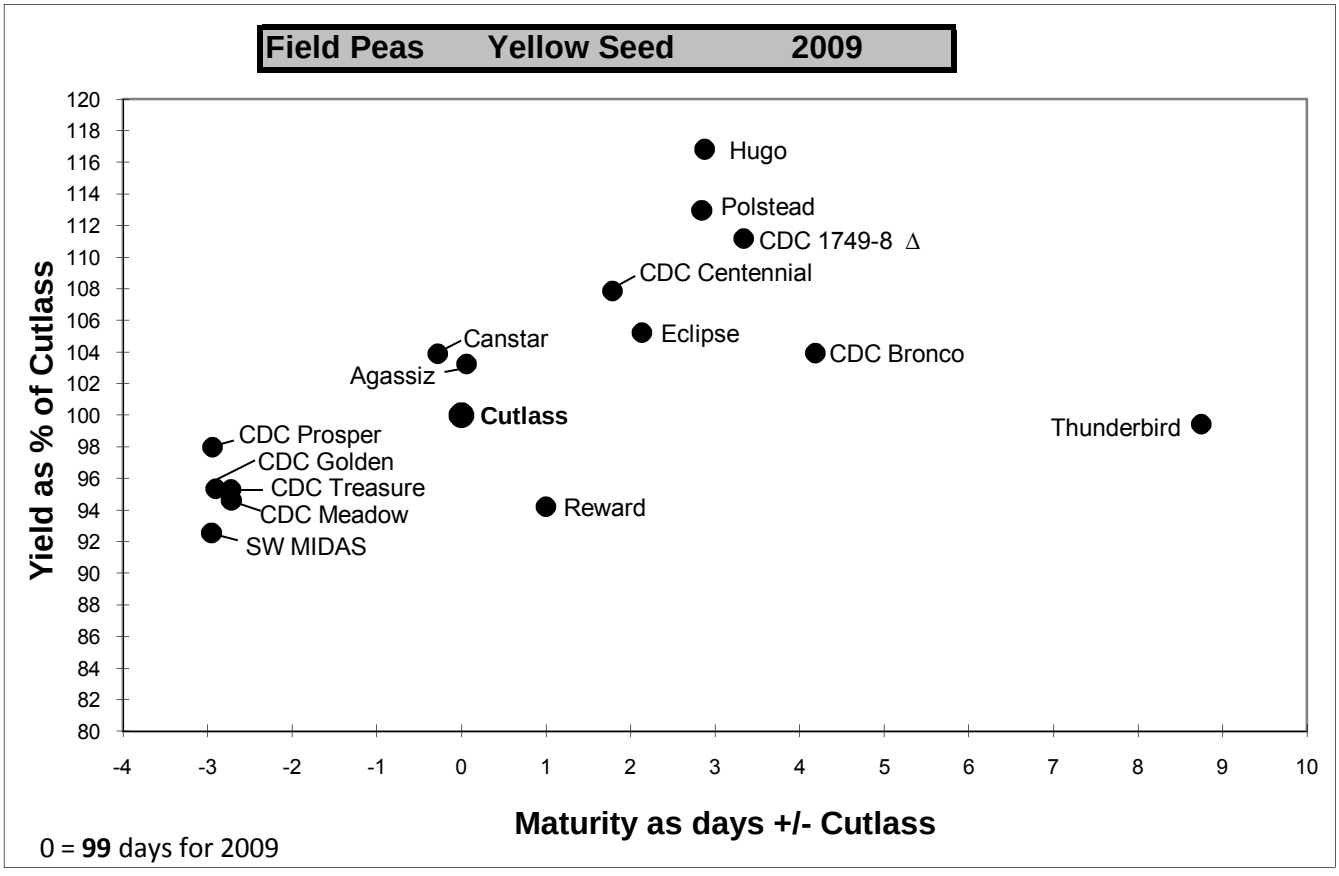
* first year tested, very limited data available.

**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



0 = **99** days for 2009

Field Peas

Variety	BC Peace Averages 2004-2009 Maturity as days +/- check	Vine Length cm	Lodging 1-9**	1000 k grams	Distributor
		Yellow Seed			
■ Agassiz	2	72	2	258	Canterra Seeds
■ Canstar	2	64	2	274	Canseed (Canada) Ltd.
CDC 1749-8 Δ	3	70	1	245	Sask Pulse Growers
CDC Bronco	4	65	2	257	Sask Pulse Growers
CDC Centennial	3	52	2	308	Sask Pulse Growers
CDC Golden	-1	64	1	253	Sask Pulse Growers
CDC Meadow	1	67	2	232	Sask Pulse Growers
CDC Prosper	-3	66	1	173	Sask Pulse Growers
CDC Treasure	-3	67	1	234	Sask Pulse Growers
Cutlass	**0**	**61**	**2**	**263**	**Sask Pulse Growers**
■ Eclipse	4	57	1	281	FP Genetics
■ Hugo	4	54	2	262	FP Genetics
■ Polstead	4	52	1	283	FP Genetics
■ Reward	0	67	1	277	SeCan
■ SW MIDAS	-2	63	2	233	FP Genetics
■ Thunderbird	3	68	2	257	Canterra Seeds
		Green Seed			
■ Camry	3	51	1	282	FP Genetics
CDC Patrick	-1	73	2	227	Sask Pulse Growers
CDC Striker	0	64	1	268	Sask Pulse Growers
■ Cooper	2	67	1	306	Canterra Seeds
Cutlass *(yellow)*	-2	63	2	249	Sask Pulse Growers
■ Mendel	0	80	2	258	FP Genetics
■ **Nitouche**	**0**	**72**	**2**	**305**	**FP Genetics**

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

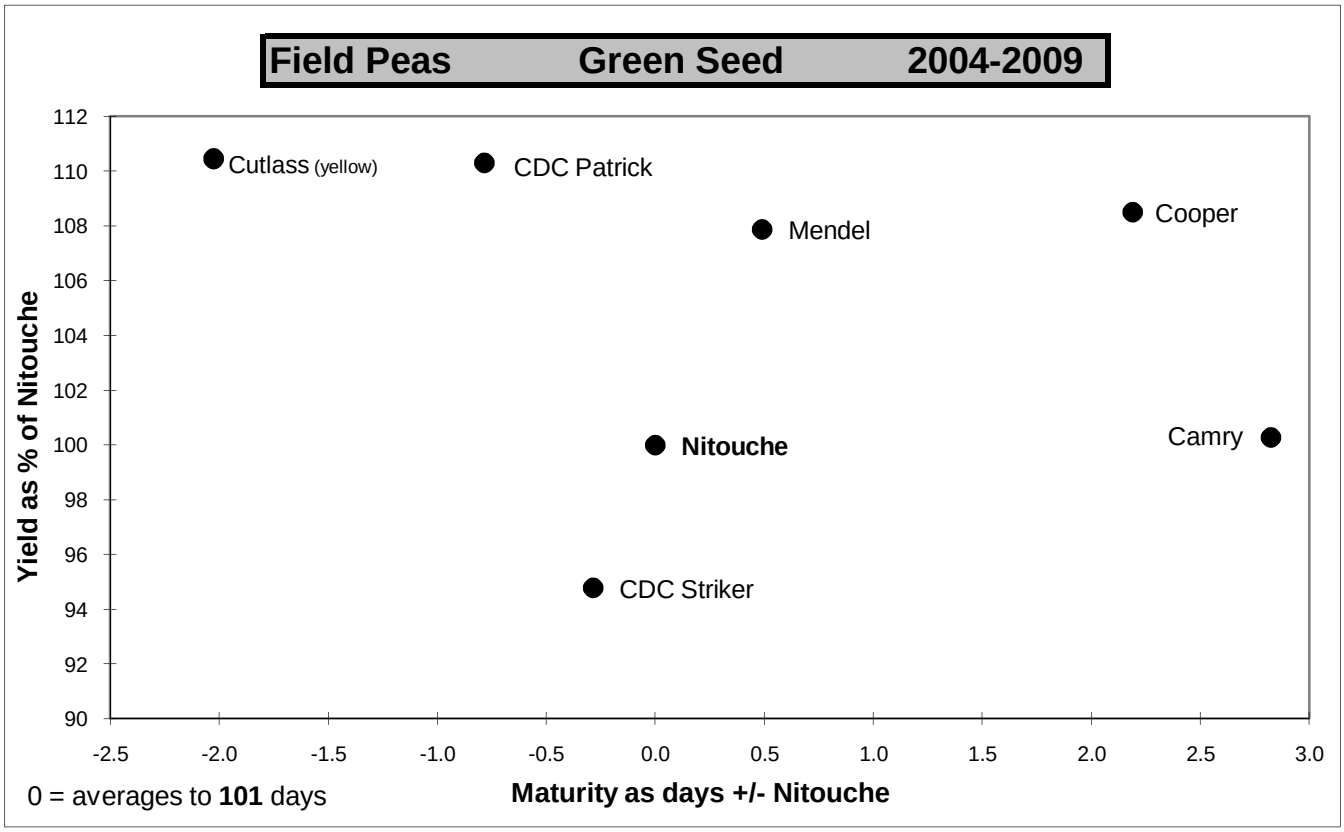
Lodging data is becoming important criteria when selecting peas for our area, as peas still standing at harvest stand a better chance of escaping ecretia contamination from large wildlife, especially if harvested as direct-cut. Note that due to variability of lodging, numbers averaged tend to be lower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

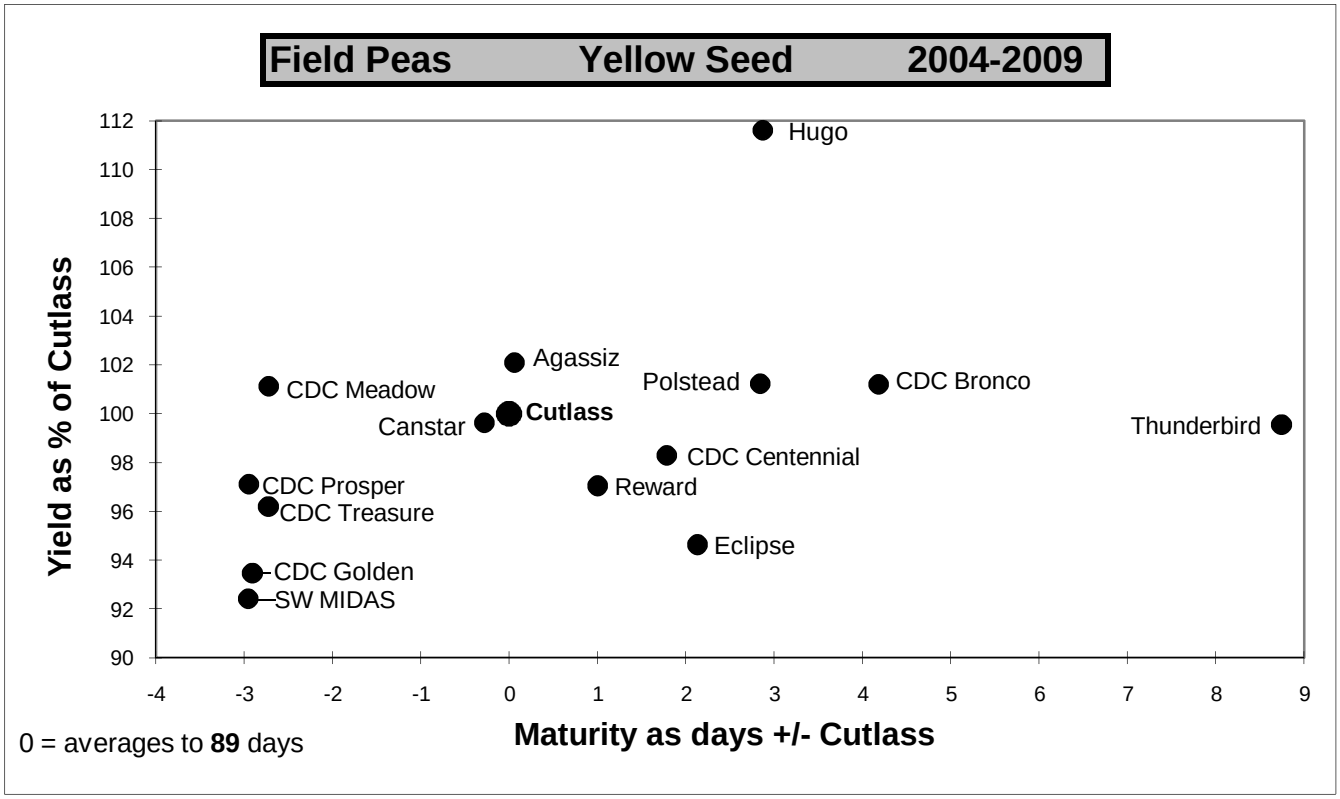
Overall average maturity for **Cutlass** is **89** days, and **101** days for **Nitouche**.

■ 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


Field Peas Green Seed 2004-2009
Yield as % of Nitouche
112
110
108
106
104
102
100
98
96
94
92
90
-2.5
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Cutlass (yellow)
CDC Patrick
Mendel
Cooper
Nitouche
Camry
CDC Striker
0 = averages to 101 days
Maturity as days +/- Nitouche


Field Peas Yellow Seed 2004-2009
Yield as % of Cutlass
112
110
108
106
104
102
100
98
96
94
92
90
-4
-3
-2
-1
0
1
2
3
4
5
6
7
8
9
Hugo
Agassiz
CDC Meadow
Polstead
CDC Bronco
Canstar
Cutlass
Thunderbird
CDC Centennial
CDC Prosper
Reward
CDC Treasure
Eclipse
CDC Golden
SW MIDAS
0 = averages to 89 days
Maturity as days +/- Cutlass

FLAX

Fields of flax have been successfully grown in our region for many years, however growing flax in the B.C. Peace River region is still at present a risky venture. Large acreage should be discouraged until further breeding programs have resulted in earlier maturing varieties. The B.C. Grain Producers Association is looking into the development of earlier maturing varieties as well as frost-tolerant lines that can be planted earlier than traditionally. 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, 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

Variety	Dawson Creek 2009 Yield bus / acre	Dawson Creek 2009 Yield % of Check	Dawson Creek 2005-2009 Avg. (%)	Dawson Creek 2005-2009 stn yrs	Fort St. John 2009 Yield bus / acre	Fort St. John 2009 Yield % of Check	Fort St. John 2005-2009 Avg. (%)	Fort St. John 2005-2009 stn yrs	B.C. Peace 2009 Avg. (%)	B.C. Peace 2005-2009 Avg. (%)	B.C. Peace 2005-2009 stn yrs	Variety Descriptions Maturity days +/- check	Variety Descriptions Height (cm)	Variety Descriptions Distributor
■ CDC Bethune	29 a	110	102	[4]	29 a	106	92	[4]	108	97	[8]	4	54	SeCan
CDC Normandy	28 a	108	102	[4]	28 a	104	103	[4]	106	102	[8]	1	53	SeCan
Flanders	27 a	105	100	[4]	27 a	98	95	[4]	102	97	[8]	7	52	SeCan
FP2242 Δ	32 a	124	124	[1]	30 a	110	110	[1]	117	117	[2]	5	56	CDC-Morden, MB
■ Hanley	28 a	109	96	[4]	30 a	109	92	[4]	109	94	[8]	6	50	SeCan
NorLin	**26 a**	**100**	**100**	**[4]**	**27 a**	**100**	**100**	**[4]**	**100**	**100**	**[8]**	**0**	**54**	**SeCan**
■ *Prairie Blue* *	29 a	114	114	[1]	27 a	100	100	[1]	107	107	[2]	3	56	SeCan
■ Prairie Grande	28 a	108	103	[3]	27 a	98	102	[3]	103	102	[6]	0	44	SeCan
■ Prairie Thunder	26 a	102	104	[3]	28 a	104	107	[3]	103	106	[6]	-1	45	Canterra Seeds
LSD (P=.05) =	3.91				2.82									
CV value (%) =	9.53				6.88									

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

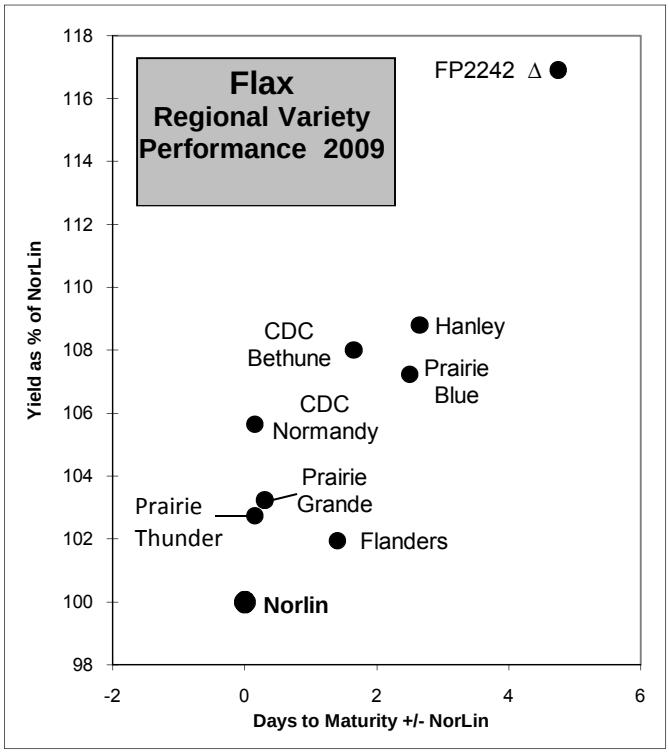
NorLin - check variety

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

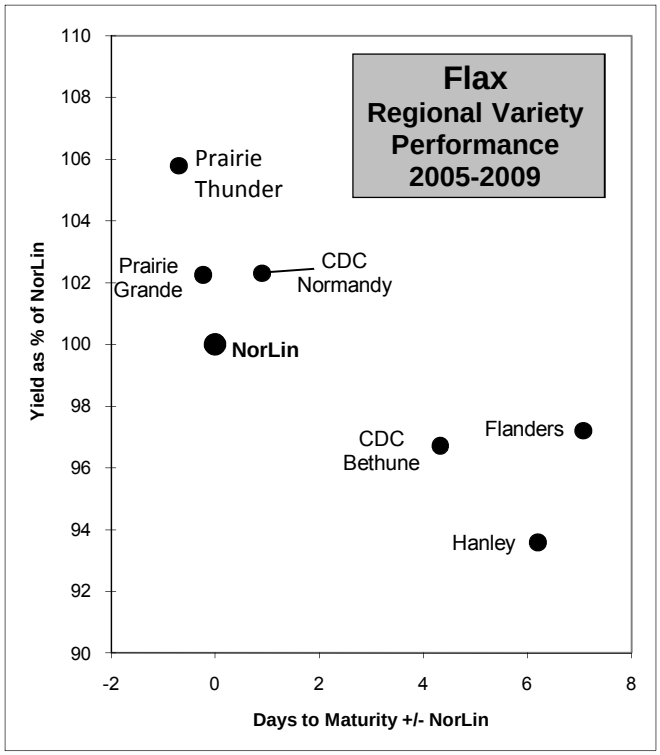
■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available



2009 maturity for **NorLin** is **116** days.



Overall average maturity for **NorLin** is **118** days.

Summary of 2009 Trials

Data used directly for the production of this report…

Regional Variety Trials	Site	Varieties	Replicates	Plots	Source
Regional 2 Row Barley	DC	21	4	84	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional 6 Row Barley	DC	11	4	44	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Oats	DC	12	4	48	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CWRS Wheat (HRSW)	DC	32	4	128	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CPS / CWES Wheat	DC	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Durum Wheat	DC	6	4	24	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Triticale	DC	6	4	24	Gayah Sieusahai - ARECA - Edmonton, AB *
Prairie-Wide Napus Canola #1	DC	15	4	60	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #2	DC	15	4	60	Raymond Gadoua - Canola Council of Can.
BCGPA Napus Comparison	DC	13	4	52	BCGPA Research Department **
Regional Flax	DC	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Green Field Pea	DC	7	4	28	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Yellow Field Pea	DC	16	4	64	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional 2 Row Barley	FSJ	21	4	84	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional 6 Row Barley	FSJ	11	4	44	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Oats	FSJ	12	4	48	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CWRS Wheat (HRSW)	FSJ	32	4	128	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CPS / CWES Wheat	FSJ	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Durum Wheat	FSJ	6	4	24	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Triticale	FSJ	6	4	24	Gayah Sieusahai - ARECA - Edmonton, AB *
Prairie-Wide Napus Canola #1	FSJ	15	4	60	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #2	FSJ	15	4	60	Raymond Gadoua - Canola Council of Can.
BCGPA Napus Comparison	FSJ	13	4	52	BCGPA Research Department **
Regional Flax	FSJ	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Green Field Pea	FSJ	7	4	28	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Yellow Field Pea	FSJ	16	4	64	Gayah Sieusahai - ARECA - 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
Ag Canada - Rapa Combined Co-op (Pub&Priv)	DC	20	4	80	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
Ag Canada - Rapa Combined Co-op (Pub&Priv)	FSJ	20	4	80	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
B-Y51 Barley Grain Pre-Co-op (Pat)	DC	24	3	72	Dr. Joseph M Nyachiro / Dr. Patricia Juskiw
B-S51 Barley Silage Pre-Co-op (Pat)	DC	24	3	72	AAFCDC Lacombe
Barley 2-Row Western Co-op	DC	36	3	108	Dr.Bryan Harvey - U of S Malt Barley Program
Barley 6-row Western Co-op	DC	20	3	60	Dr. Mario Therrien - AAFC Brandon
Brett-Young - Canola Seed-Coat Trial	DC	6	4	24	Brad Will - Brett Young, Rycroft AB
Brett-Young - Canola Seed-Coat Trial	FSJ	6	4	24	Brad Will - Brett Young, Rycroft AB
Canola Council of Canada Napus NS1 Co-op	DC	25	4	100	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS2 Co-op	DC	25	4	100	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS3 Co-op	DC	25	4	100	Raymond Gadoua - Canola Council of Can.
Salvia Hispanica New Crop Demo	DC	3	4	12	BCGPA Research Department **
Cereal Rust plots (individual plots)	DC	3	1	3	Dr. Tom Fetch - Ag Canada, Winnipeg
CWB - Phenological Study in cereals	DC	8	4	32	Mike Grenier - CWB - Winnipeg, MB
Dry Bean Adaptation Demo	DC	4	3	12	Dr. Parthiba Balasubramanian - AgCan Lethr.
Ag Canada Flax Prelim A	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Ag Canada Flax Prelim A	FSJ	36	3	108	Dr. Scott Duguid - MRC Morden
Flax CFET A	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax Prelim A Co-op	FSJ	25	3	75	Dr. Scott Duguid - MRC Morden
Early Flax Prelim A Co-op	DC	25	3	75	Dr. Scott Duguid - MRC Morden

…Varietal Development table continued next page

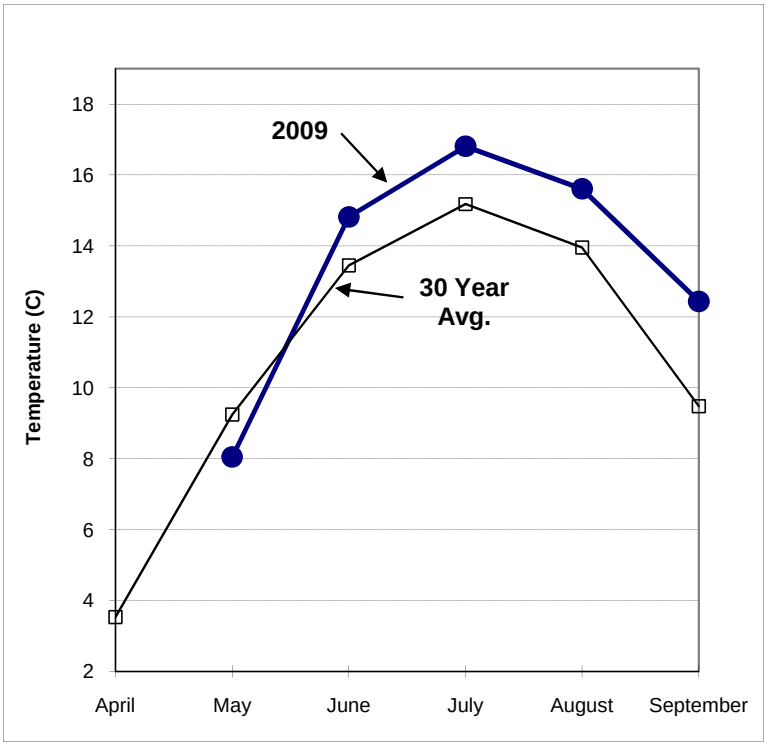
Varietal Development *continued ...*	Site	Varieties	Replicates	Plots	Source
Early Wheat CBW-A2 (3m plots)	FSJ	42	2	84	Dr. Gavin Humphreys / Dr. Steven Fox - AAFC Winnipeg
Early Wheat Parkland 'A1' (3m plots)	FSJ	56	2	112	
Early Wheat Parkland 'A2' (3m plots)	FSJ	90	2	180	
Early Wheat PRF82 (3m plots)	FSJ	84	1	84	
Early Wheat PRDHFM (3m plots)	FSJ	150	1	150	
Early Wheat PRDHM (3m plots)	FSJ	200	1	200	
Early Wheat HWGP (3m plots)	FSJ	60	1	60	
Ethanol Feedstocks-A Public (12entries)	DC	10	3	30	Shannon Chant - Sask Ag & Food - Sask.
Ethanol Feedstocks-B Private (BCGPA)	DC	32	4	128	BCGPA/Humphreys/Brown/Fox/Depauw
Ethanol Feedstocks-A Public (12entries)	FSJ	10	3	30	Shannon Chant - Sask Ag & Food - Sask.
Ethanol Feedstocks-B Private (BCGPA)	FSJ	32	4	128	BCGPA/Humphreys/Brown/Fox/Depauw
Field Pea Co-op "A"	FSJ	36	3	108	Dr. Dengjin Bing - AAFC Lacombe
Field Pea Co-op "B"	FSJ	28	3	84	Dr. Dengjin Bing - AAFC Lacombe
Hard White Spring Wheat Co-op	DC	25	3	75	Dr. Ron DePauw - AAFC Saskatoon
Hard White Spring Wheat Co-op	FSJ	25	3	75	Dr. Ron Depauw - Ag. Canada Saskatoon
IPNI - Avail® in-furrow Fertilizer Trial	DC	9	4	36	Tom Jensen - IPNI
IPNI - Nutrisphere® deep-band Fert	DC	13	4	52	Tom Jensen - IPNI
T.A.T.-P.O.R. Oat Co-op	DC	20	2	40	Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg
Oat - Regional Advanced Oat Co-op (RAT)	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
Peace Region Field Pea (PYT20) Trial	FSJ	36	2	72	Dr. Dengjin Bing - AAFC Lacombe
Parkland 'C' Wheat Co-op	DC	25	3	75	Alanna Olson - AAFC Beaverlodge
Parkland 'C' Wheat Co-op	FSJ	25	3	75	Alanna Olson - AAFC Beaverlodge
PRFSA - forage seed plots(S. Burton)	FSJ	25	4	100	Sandra Burton - PRFSA
Early RR Soybean Demo	DC	5	4	20	BCGPA Research Department **
Early RR Soybean Demo	FSJ	5	4	20	BCGPA Research Department **
T-Y51Triticale Grain Pre-Co-op	DC	19	3	57	Dr. Don Salmon - AAF Lacombe, AB
T-Y52 Triticale Grain Pre-Co-op	FSJ	19	3	57	Dr. Don Salmon - AAF Lacombe, AB
T-S51Triticale Silage	DC	19	3	57	Dr. Don Salmon - AAF Lacombe, AB
Viterra Napus Herbicide Systems Trial	DC	24	3	72	Tim Ferguson - Proven Seeds (Calgary)
VITERRA/PROVEN Wheat Marketing	DC	21	3	63	Jim Anderson - Agricore United (Calgary)
VITERRA/PROVEN Oat Performance	DC	8	3	24	Jim Anderson - Agricore United (Calgary)
Viterra Juncea (XCEED) Trial	DC	4	3	12	Tim Ferguson - Proven Seeds (Calgary)
WESTCO - N prod's top-dressed	DC	8	4	32	Rigas Karamanos - WESTCO

Many other studies in agronomy and privately contracted work are undertaken each year which are not included in this list.

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

Sources: AAF = Alberta Agriculture & Food
AAFC = Agriculture & Agrifood Canada
AAFCDC = Agriculture & Agrifood Crop Development Centre
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 2009



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April		3.5
May	8.0	9.2
June	14.8	13.5
July	16.8	15.2
August	15.6	14.0
September	12.4	9.5

Frost Events: -7.4 May 20 **-2.4 June 6**
-1.5 June 1 **-2.2 Oct 1**

Killing Frost (-2.2 C) Free Period: 116 days
June 6 to October 1

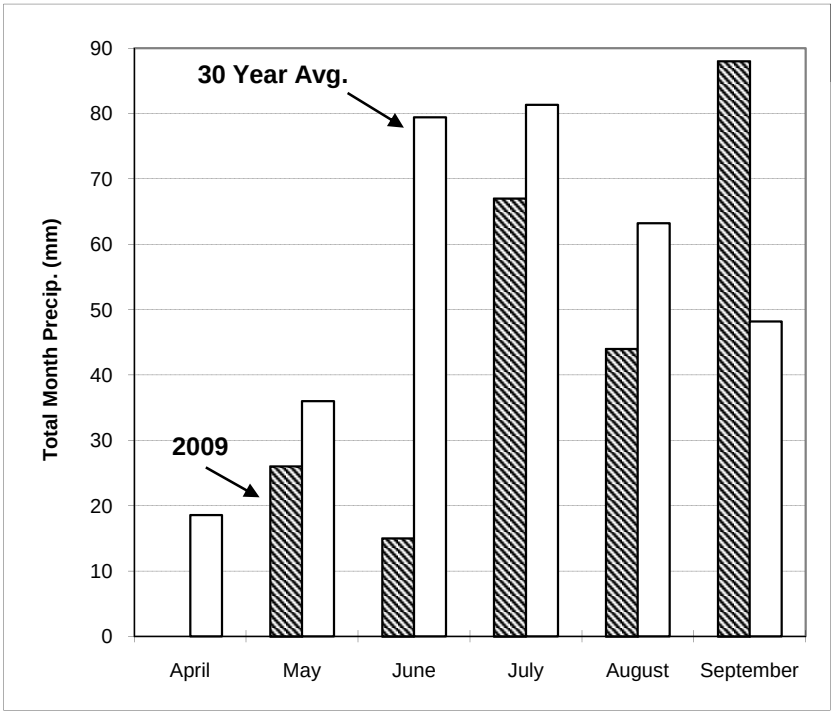
Accumulated Growing Degree Days:
2009: 1230
1994-2009 Average: 1193

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

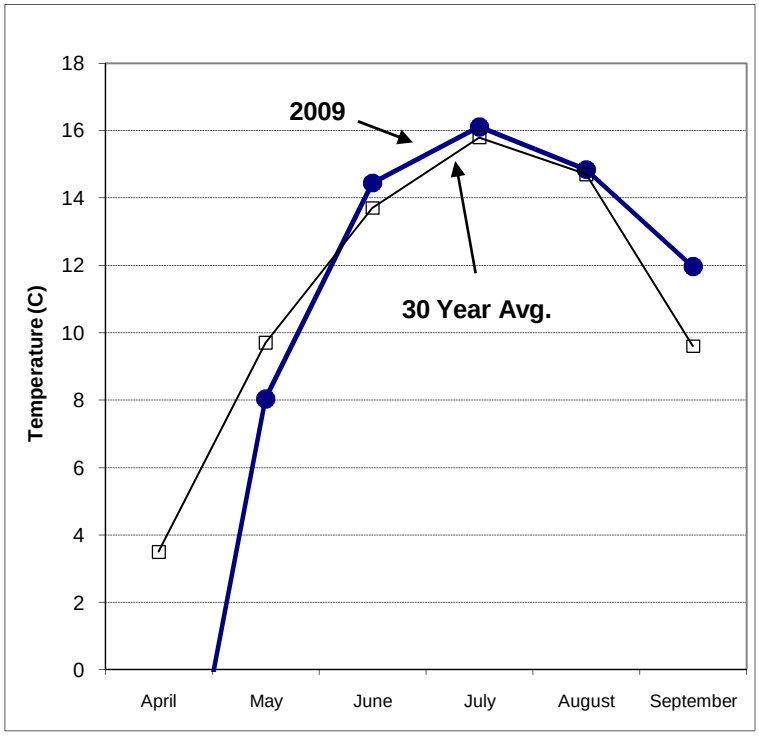
PRECIPITATION

Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
April		19
May	26	36
June	15	79
July	67	81
August	44	63
September	88	48

Data is provided by an on site weather station maintained by the Agriculture Risk Management Branch of the BC Ministry of Agriculture and Lands.



Fort St. John Weather Information 2009



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April	-8.6	3.5
May	8.0	9.7
June	14.4	13.7
July	16.1	15.8
August	14.8	14.7
September	12.0	9.6

Frost Events: **-4.4 May 19** -1 August 14 & 15
-1.3 June 7 **-3.5 Oct 3**

Killing Frost (-2.2 C) Free Period: 136
May 19 to October 3

Accumulated Growing Degree Days:
2009: 1184
1994-2009 Average: 1173

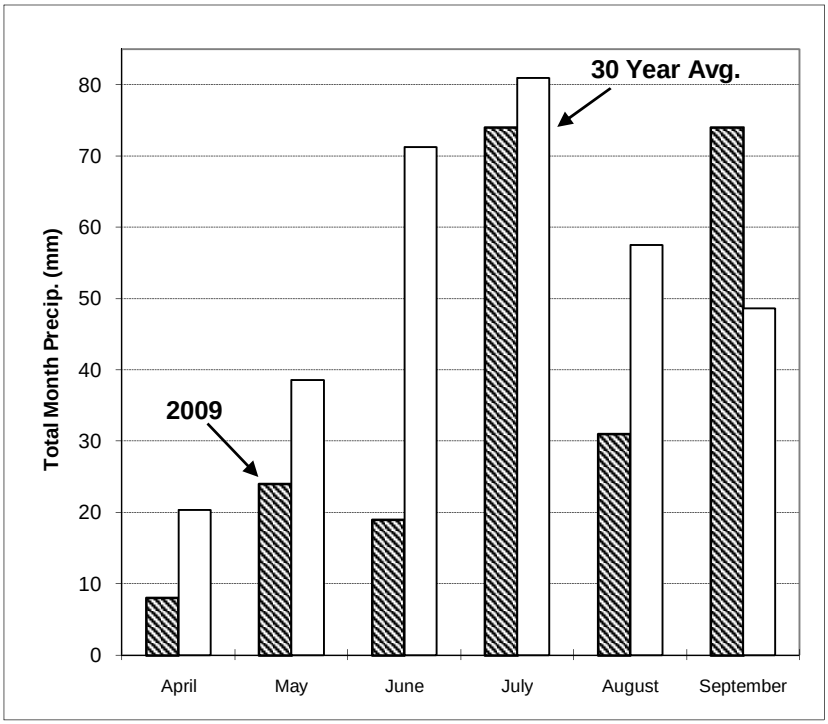
* 30 year average FSJ from 1968-1997
source: Environment CANADA

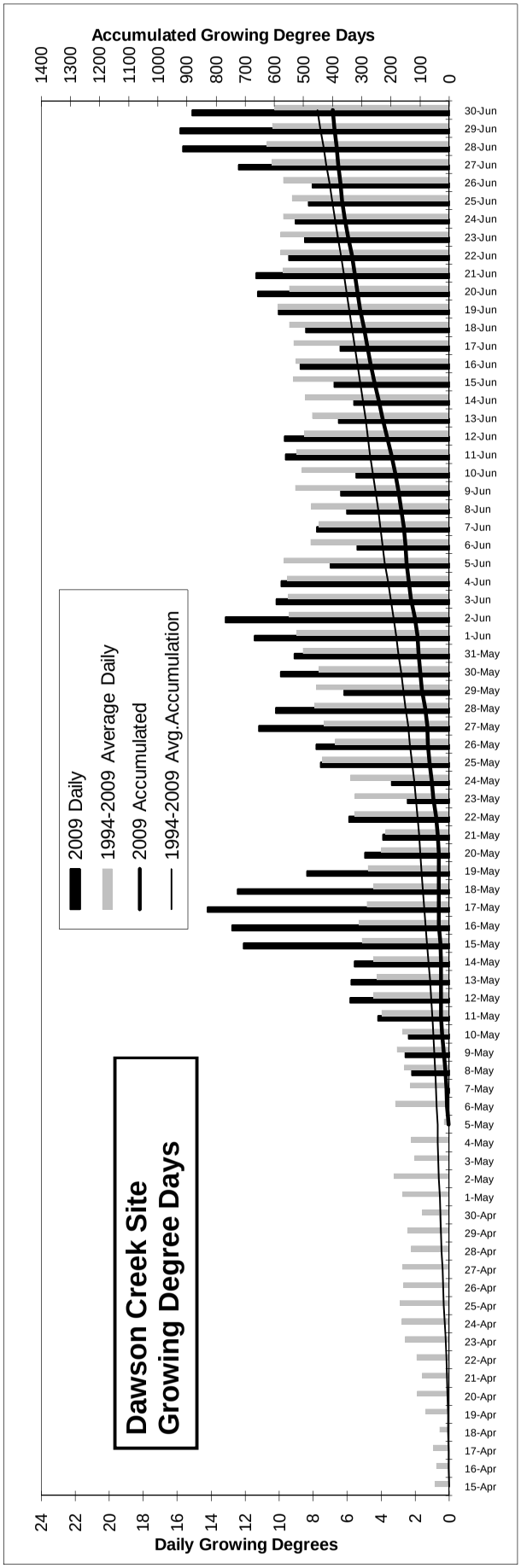
PRECIPITATION

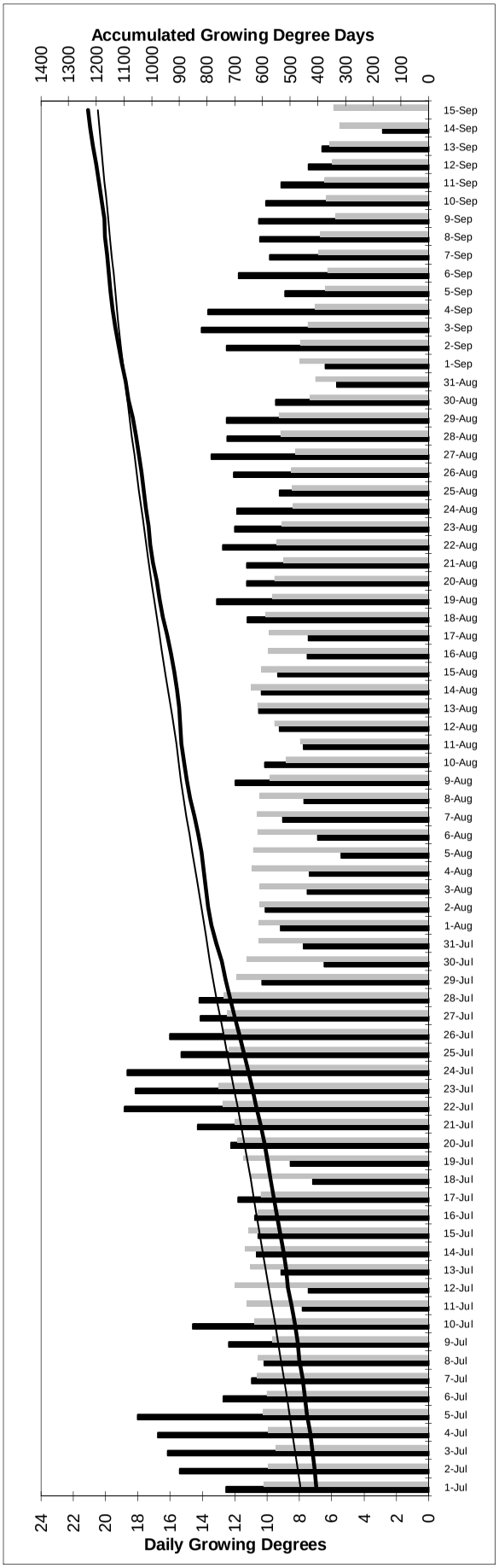
Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
April	8	20
May	24	39
June	19	71
July	74	81
August	31	58
September	74	49

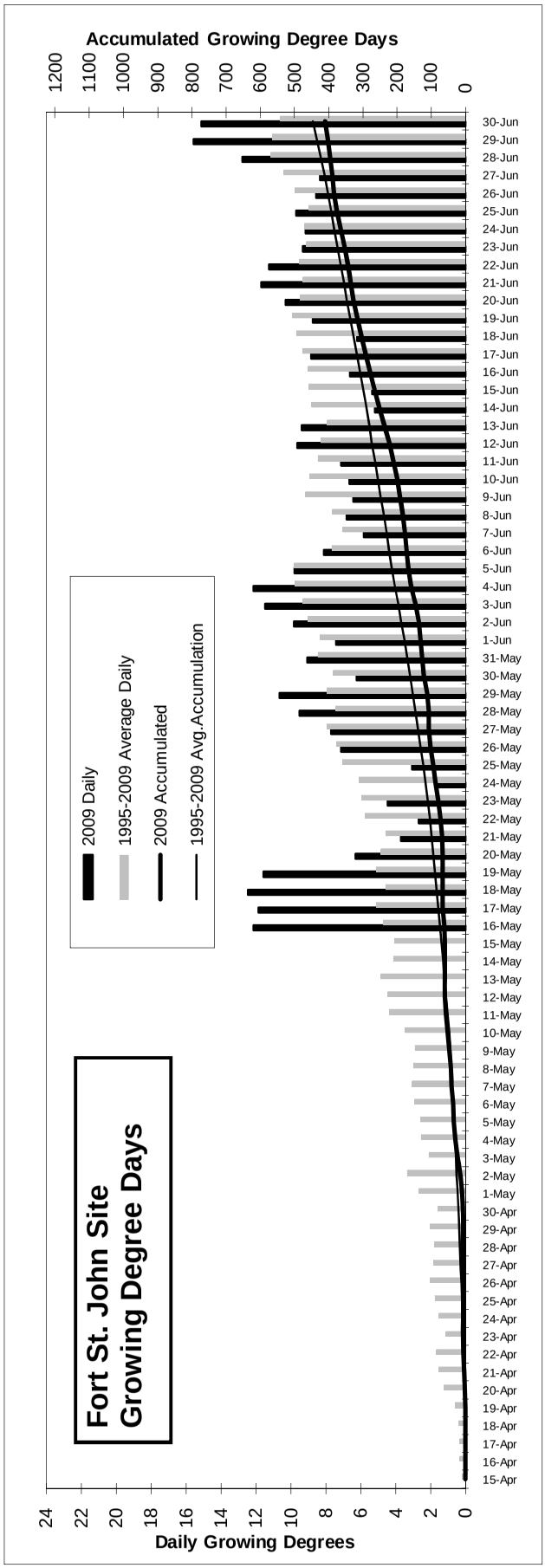
Data is provided by an on site weather station maintained by the Agriculture Risk Management Branch of the BC Ministry of Agriculture and Lands.

Production INSURANCE for British Columbia




Dawson Creek Site
Growing Degree Days
2009 Daily
1994-2009 Average Daily
2009 Accumulated
1994-2009 Avg.Accumulation
Accumulated Growing Degree Days
Daily Growing Degrees


Accumulated Growing Degree Days
Daily Growing Degrees


Accumulated Growing Degree Days
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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
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7-Jun
6-Jun
5-Jun
4-Jun
3-Jun
2-Jun
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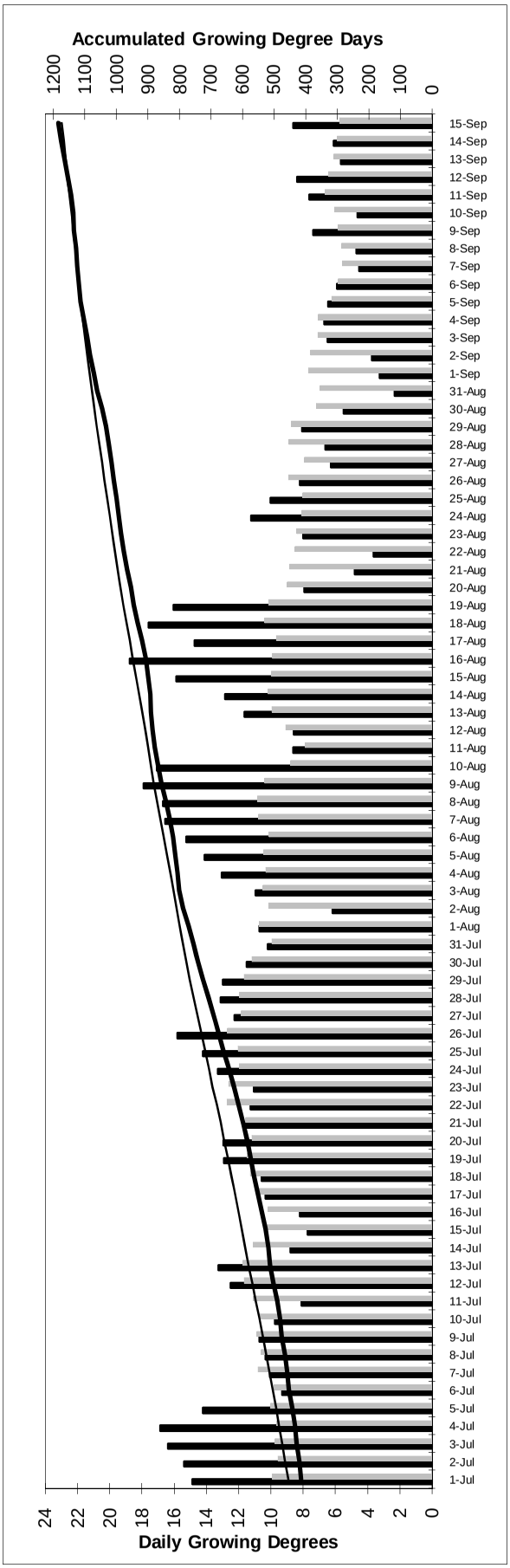
28-Apr
27-Apr
26-Apr
25-Apr
24-Apr
23-Apr
22-Apr
21-Apr
20-Apr
19-Apr
18-Apr
17-Apr
16-Apr
15-Apr
2009 Daily
1995-2009 Average Daily
2009 Accumulated
1995-2009 Avg.Accumulation
Fort St. John Site
Growing Degree Days
24
22
20
18
16
14
12
10
8
6
4
2
0
Daily Growing Degrees


Accumulated Growing Degree Days
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15-Sep
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2-Jul
1-Jul
24
22
20
18
16
14
12
10
8
6
4
2
0
Daily Growing Degrees

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Fax: 204-325-8052

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Fax: +1-204-947-6444
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www.klempnauer.ab.ca

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www.farmpure.com

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