



**B.C. GRAIN
PRODUCERS
ASSOCIATION**

2008 FIELD CROP VARIETY PERFORMANCE

B.C. PEACE RIVER REGION

Funded in part by ...



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**Investment
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<p style="text-align: center;">BC Grain Producers Association 2008 Field Crop Variety Performance BC Peace River Region</p>
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Front cover photo

Staff member pulls signs from cereal plots in preparation for harvest at the Dawson Creek
research farm, Aug 2008

Front cover photo credit: Clair Langlois

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BC Grain Producers Association

2008 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. **ROLLA AGRICULTURAL SERVICES LTD.** similarly recognized for their contribution in providing brand canola seed so that we can properly rotate our crops in preparation for future research. As well, **EGGIMANN ENTERPRISES** for providing free custom spraying services to the north Peace site. We thank these organizations for their financial and or “in-kind” support toward making our field-testing and the production of this book possible. Special thanks also extended to the 2008 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 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 technicians **Satoru Noshio**, **Katie Stykalo**, and **Rebekah Langlois** whom all worked very hard and well together. Finally, many thanks yet once again to **Colleen Anderson** for all her help in the preparation of this report.

This document reports all registered materials grown during the 2008 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 2008, but which were previously tested, may now be viewed via earlier publications and are available for viewing or downloading at our website 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 data collected. It should only be used as a guide, and where labels are available with your product, always follow label directions.

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BC Grain Producers Association - Reference & Terminology -

Station Years

The number of station years that the variety has been tested can be seen in the yield tables inside the square brackets []. A station year is one test site at one location in one year. For example, a canola trial conducted at two locations over three years would have six station years, or [6]. We advise using caution if the data is based on *less than six station years in total*, or three years at any given location. This of course is a concern for canola where often a line does not even stay in the 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 inoculation with seed a good form of insurance. High soil nitrogen levels (over 60 kg N/ha) will reduce nodulation in the field regardless of inoculation. Cool, dry, or excessively wet soils, provide a harsh environment for proper inoculation 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.

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 in the end did not show similar results. 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...

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

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

BC Grain Producers Association - 2008 Growing Conditions -

Our farming season started cold and dry early in the spring. Winter snowfall at the Fort St John (FSJ) research site was close to normal, but at the Dawson Creek (DC) site, snowfall amounts were well below average. There was about a two week delay to seeding at both sites due to cool soil temperatures and some late snowfall. After planting, emergence was slow, especially at DC due to a general lack of significant soil moisture. Conditions were better at FSJ due to extra soil moisture via extra snowfall.

Once crops were up, rainfall came to an abrupt and almost complete halt well into the summer. Drought conditions settled in across the BC Peace River region and remained so throughout the rest of the growing season. Between May and September inclusively, total participation was 4.7 inches (117 mm) at DC and 5.4 inches (136 mm) at FSJ. That is only 38% of the 30-year average rainfall for DC and only 46% for FSJ. In the end 2008 produced one of the driest growing seasons on record for both the DC and FSJ site. Furthermore, due to the drought, July became the new grain-filling month instead of the usual August, and thus crop yields (especially DC yields) definitely reflect this in this data set for 2008.

Canola seemed to be the crop most affected by the drought at both sites, and so five out of the six canola trials that usually make up the data in this book, produced unacceptable variability and could not be used in this 2008 report. Poor germination and growth habits were observed in wheat, barley, flax, and pea plots as well at both sites, but to a much higher degree at DC than FSJ. This difference correlates perfectly with known precipitation patterns from the two sites. Surprisingly however, these other crops still managed to produce sound and stable data and therefore such data was used to generate this 2008 report. Knowing how varieties react under drought conditions is important information, and thus this 2008 report is a valuable depiction of just such circumstances.

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.

Six Row Barley		Yield as % of Harrington								
Variety	Type	Dawson Creek			Fort St. John			B.C. Peace		
		2008	2003-2008	Stn.Yrs.	2008	2003-2008	Stn.Yrs.	2008	2003-2008	Stn.Yrs.
		Yield	Avg.		Yield	Avg.		Yield	Avg.	
AC HARPER	feed	113		[3]	125	105	[5]	125	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**.

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:

Variety	Dawson Creek		
	2008	2003-2008	Stn.Yrs.
	Yield	Avg.	
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 2008

Fort St. John, B.C.		Legal Description: SW19 Tp84 R18 W6						
Crop	Fertilizer	kg/ha	Placement	lbs actual/ac	Enviro-Test Labs			
	Applied			Recom. vs. Applied	N	P ₂ O ₅	K ₂ O	S
Canola	20-0-0-24	113	banded	Recommended* =	0	30	15	20
	6-26-30	50	banded	Actually applied =	26.1	25.5	13.4	24.2
	12-52-0	30	in-furrow					
Flax	27-0-0-12	113	banded	Recommended* =	30	30	15	10
	6-26-30	55	banded	Actually applied =	33.4	26.7	14.7	12.1
	12-52-0	30	in-furrow					
Cereals	34.5-0-0-0	97.5	banded	Recommended* =	0	25	15	10
	6-26-30	50	banded	Actually applied =	35.5	25.5	13.4	0
	12-52-0	30	in-furrow					
Peas	20-0-0-24	50	banded	Recommended* =	0	25	15	10
	6-26-30	50	banded	Actually applied =	14.8	25.5	13.4	4.3
	12-52-0	30	in-furrow					

Dawson Creek, B.C.		Legal Description: SW20 Tp78 R14 W6							
Crop	Fertilizer	kg/ha	Placement	lbs actual/ac	Enviro-Test Labs				
	Applied			Recom. vs. Applied	N	P ₂ O ₅	K ₂ O	S	
Canola	27-0-0-12	113	banded	Recommended* =	25	25	20	20	
	6-26-30	55	banded	Actually applied =	33.4	26.7	14.7	12.1	
	12-52-0	30	in-furrow						
Flax	20-0-0-24	50	banded	Recommended* =	10	25	20	10	
	6-26-30	50	banded	Actually applied =	14.8	25.5	13.4	10.7	
	12-52-0	30	in-furrow						
Wheat & Barley	34.5-0-0-0	77	banded	Recommended* =	0	25	20	5	
	6-26-30	50	banded	Actually applied =	29.2	25.5	13.4	0	
	12-52-0	30	in-furrow						
Malt Barley & Oats	34-0-0-0	58	banded	Recommended* =	0	30	20	15	
	6-26-30	50	banded	Actually applied =	23.5	25.5	13.4	0	
	12-52-0	30	in-furrow						
Peas	20-0-0-24	50	banded	Recommended* =	0	25	15	10	
	6-26-30	50	banded	Actually applied =	14.8	25.5	13.4	10.7	
	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.

Herbicide Applications			
Fort St. John, B.C.		Legal Description:	SW19 Tp84 R18 W6
Crop	Date Applied	Product Used	Product Rate
Canola	12-Jun-08	Muster (ethametsulfuron methyl) Lontrel 360 (clopyralid) Poast Ultra (sethoxydim) Merge	12 g/ac 227 ml/ac 200 ml/ac 400 ml/ac
Field Peas	12-Jun-08	Sencor (metribuzin) 75%DF MCPA Sodium	77 g/ac 190 ml/ac
	17-Jun-08	Poast Ultra (sethoxydim) Merge	190 ml/ac 400 ml/ac
Flax	12-Jun-08	Curtail-M	800 ml/ac
	17-Jun-08	Poast Ultra (sethoxydim) Merge	190 ml/ac 400 ml/ac
Wheat, Barley, Oat	17-Jun-08	Curtail M (clopyralid + MCPA ester) Prestige	800 ml/ac 320 ml/ac

Dawson Creek, B.C.		Legal Description:	SW20 Tp78 R14 W6
Crop	Date Applied	Product Used	Product Rate
Wheat & Barley Oats, Malt Barley	14-Jun-08	Buctril - M	400 ml/ac
Field Peas	11-Jun-08	Sencor (metribuzin) 75%DF MCPA Sodium	77 g/ac 190 ml/ac
	17-Jun-08	Poast Ultra (sethoxydim) Merge	190 ml/ac 400 ml/ac
	28-Jun-08	Basagran Forte	910 ml/ac
Flax	12-Jun-08	Curtail-M	800 ml/ac
	17-Jun-08	Poast Ultra (sethoxydim) Merge	190 ml/ac 400 ml/ac
Canola (napus & rapa)	17-Jun-08	Muster (ethametsulfuron methyl) Lontrel 360 (clopyralid) Poast Ultra (sethoxydim) Merge	12 g/ac 227 ml/ac 200 ml/ac 400 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		Date Planted	Soil Temp (C°) @ plant	Seeding Depth	Harvest Date	Harvesting Method
		lbs/ac	kg/ha					
FSJ	Napus Canola	8	8.9	19-May-08	12	0.75-1 inch	23-Sep-08	crop-push/direct
	Flax	40	45	16-May-08	11	0.75-1 inch	30-Sep-08	desiccate/direct
	Barley	77	86	26-May-08	10	0.75-1 inch	05-Sep-08	direct cut
	CWRS Wheat	90	101	26-May-08	10	0.75-1 inch	12-Sep-08	direct cut
	CPS/CWES	90	101	26-May-08	10	0.75-1 inch	12-Sep-08	direct cut
	Oats	81	90	26-May-08	10	0.75-1 inch	05-Sep-08	direct cut
	Triticale	117	131	26-May-08	10	0.75-1 inch	24-Sep-08	direct cut
	Peas	149	167	16-May-08	11	1.25 inch	26-Aug-08	desiccate/direct
DC	Napus Canola	8	8.9	17-May-08	13	0.75 inch	16-Sep-08	direct cut
	Flax	40	45	14-May-08	7	0.75 inch	29-Sep-08	desiccate/direct
	Barley	77	86	22-May-08	8	1 inch	28-Aug-08	direct cut
	CWRS Wheat	90	101	22-May-08	8	1 inch	10-Sep-08	direct cut
	CPS/CWES	90	101	22-May-08	8	1 inch	10-Sep-08	direct cut
	Oats	81	90	22-May-08	7	0.75-1 inch	28-Aug-08	direct cut
	Triticale	117	131	22-May-08	8	1 inch	18-Sep-08	direct cut
	Peas	149	167	14-May-08	10	1.5-1.75 inch	23-Aug-08	direct cut

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CANADA WESTERN RED SPRING WHEAT

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

CWRS Wheat						Yield as % of Katepwa								
Variety	Dawson Creek					Fort St. John				B.C. Peace				
	2008 Yield		2004-2008			2008 Yield		2004-2008		2008	2004-2008			
	bus / acre	% of Check	Avg. (%)	Station Years		bus / acre	% of Check	Avg. (%)	Station Years	Avg. (%)	Avg. (%)	Station Years		
5602HR	18	a-e	91	84	[5]	36	cd	82	91	[5]	87	88	[10]	
AC Barrie	18	b-e	87	93	[5]	44	abc	100	99	[5]	94	96	[10]	
AC Intrepid	17	cde	84	97	[5]	39	a-d	89	102	[5]	86	99	[10]	
AC Splendor	17	cde	83	94	[5]	33	d	75	91	[5]	79	93	[10]	
Alvena	19	a-e	92	100	[3]	43	abc	100	104	[3]	96	102	[6]	
CDC Abound ***	21	a-e	105	104	[3]	42	a-d	97	105	[3]	101	105	[6]	
CDC Alsask	23	ab	114	108	[5]	44	abc	102	111	[5]	108	109	[10]	
CDC Go	22	abc	111	105	[5]	42	a-d	97	103	[5]	104	104	[10]	
CDC Imagine ***	16	de	81	96	[5]	42	a-d	96	101	[5]	88	98	[10]	
CDC Osler	20	a-e	98	103	[5]	44	abc	101	104	[5]	99	104	[10]	
Fieldstar *	19	a-e	93	93	[1]	41	a-d	94	94	[1]	94	94	[2]	
Goodeve	19	a-e	92	94	[2]	42	a-d	97	106	[2]	95	100	[4]	
Harvest	16	e	79	92	[5]	40	a-d	92	99	[5]	85	96	[10]	
Infinity	22	a-d	108	108	[5]	45	abc	104	107	[5]	106	108	[10]	
KANE	17	cde	85	87	[2]	38	bcd	88	93	[2]	87	90	[4]	
Katepwa	20	a-e	100	100	[5]	44	abc	100	100	[5]	100	100	[10]	
Lillian	20	a-e	99	102	[3]	47	ab	107	104	[3]	103	103	[6]	
Snowbird **	21	a-e	102	98	[5]	41	a-d	95	102	[5]	98	100	[10]	
Snowstar **	19	a-e	96	89	[3]	45	abc	104	104	[3]	100	96	[6]	
Somerset	20	a-e	97	98	[3]	45	abc	103	103	[3]	100	101	[6]	
Stettler *	24	a	117	117	[1]	49	a	113	113	[1]	115	115	[2]	
Superb	24	a	117	117	[5]	49	a	113	114	[5]	115	116	[10]	
Unity *	21	a-e	105	105	[1]	44	abc	102	102	[1]	104	104	[2]	
Waskada	20	a-e	99	97	[2]	43	abc	99	100	[2]	99	99	[4]	
LSD (P=.05) =	3.066					5.84								
CV value (%) =	9.43					9.70								

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

* first year tested, very limited data available

Katepwa - check variety

** CWHWS Canadian Western Hard White Spring Wheat

*** Varieties with Clearfield® tolerance genetics

CWRS Wheat

Variety Descriptions

B.C. Peace Averages

Alberta Agdex 100/32

2004-2008

Resistance to:

Tolerance to:

Variety	Days to Maturity		Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check	Resistance to:						Tolerance to:			Distributor
	+/-	check				Lodging	Shatter	Loose Smut	Common Bunt	Common Root Rot	Leaf Spot	Sprouting	FHB		
■ 5602HR	2		76	64	2 [10]	G	G	R	R	XX	F	F	G	Viterra/Proven	
■ AC Barrie	-1		71	63	1 [10]	G	G	R	R	I	P	G	F	SeCan	
■ AC Intrepid	-1		75	62	0 [10]	G	G	I	R	I	F	P	P	Canterra / Cargill	
■ AC Splendor	-2		72	62	1 [10]	F	G	I	I	I	F	F	P	SeCan	
■ Alvena	-2		69	63	0 [6]	G	XX	G	F	XX	XX	F	P	SeCan	
■ CDC Abound	-1		65	65	1 [6]	G	XX	F	F	XX	P	G	P	Viterra/Proven	
■ CDC Alsask	-1		75	62	0 [10]	F	G	R	R	I	P	F	P	Viterra/Proven	
■ CDC Go	-3		69	63	1 [10]	G	G	S	I	XX	P	P	F	CDC / U of S	
■ CDC Imagine	-2		71	62	0 [10]	G	G	R	R	I	P	F	VP	AgPro / Viterra/Proven	
■ CDC Osler	-3		71	63	0 [10]	G	G	R	I	XX	XX	F	P	U of S	
■ Fieldstar *	-3		61	62	1 [2]	XX	XX	XX	XX	XX	XX	XX	XX	SeCan	
■ Goodeve	-1		72	63	0 [4]	XX	XX	XX	XX	XX	XX	XX	XX	Viterra/Proven	
■ Harvest	-2		71	64	1 [10]	VG	G	R	S	I	P	EX	VP	FarmPure Seeds	
■ Infinity	0		72	62	0 [8]	G	G	R	R	XX	P	G	VP	Canterra	
■ KANE	-2		69	65	1 [4]	XX	XX	XX	XX	XX	XX	XX	XX	SeCan	
■ Katepwa	0		75	63	0 [10]	F	G	R	R	I	P	F	F	SeCan	
■ Lillian	-2		72	62	0 [6]	G	G	R	I	I	P	G	VP	SeCan	
■ Snowbird**	-1		74	63	0 [10]	G	G	R	S	I	P	G	P	FarmPure Seeds	
■ Snowstar**	-4		65	65	0 [6]	XX	XX	S	S	XX	F	XX	F	SeCan	
■ Somerset	-1		73	61	1 [6]	G	XX	G	S	XX	P	F	P	SeCan	
■ Stettler *	3		62	63	1 [2]	XX	XX	XX	XX	XX	XX	XX	XX	SeCan	
■ Superb	0		72	64	0 [10]	G	G	I	R	I	P	G	P	SeCan	
■ Unity *	-1		59	62	1 [2]	XX	XX	XX	XX	XX	XX	XX	XX	Viterra/Proven	
■ Waskada	-3		75	65	1 [4]	XX	XX	XX	XX	XX	XX	XX	XX	SeCan	

* first year tested, very limited data available

** CWHWS = Canadian Western Hard White Spring Wheat

EX = excellent, VG = very good, G = good

F = fair, P = poor (susceptible), VP = very poor

Katepwa - check variety

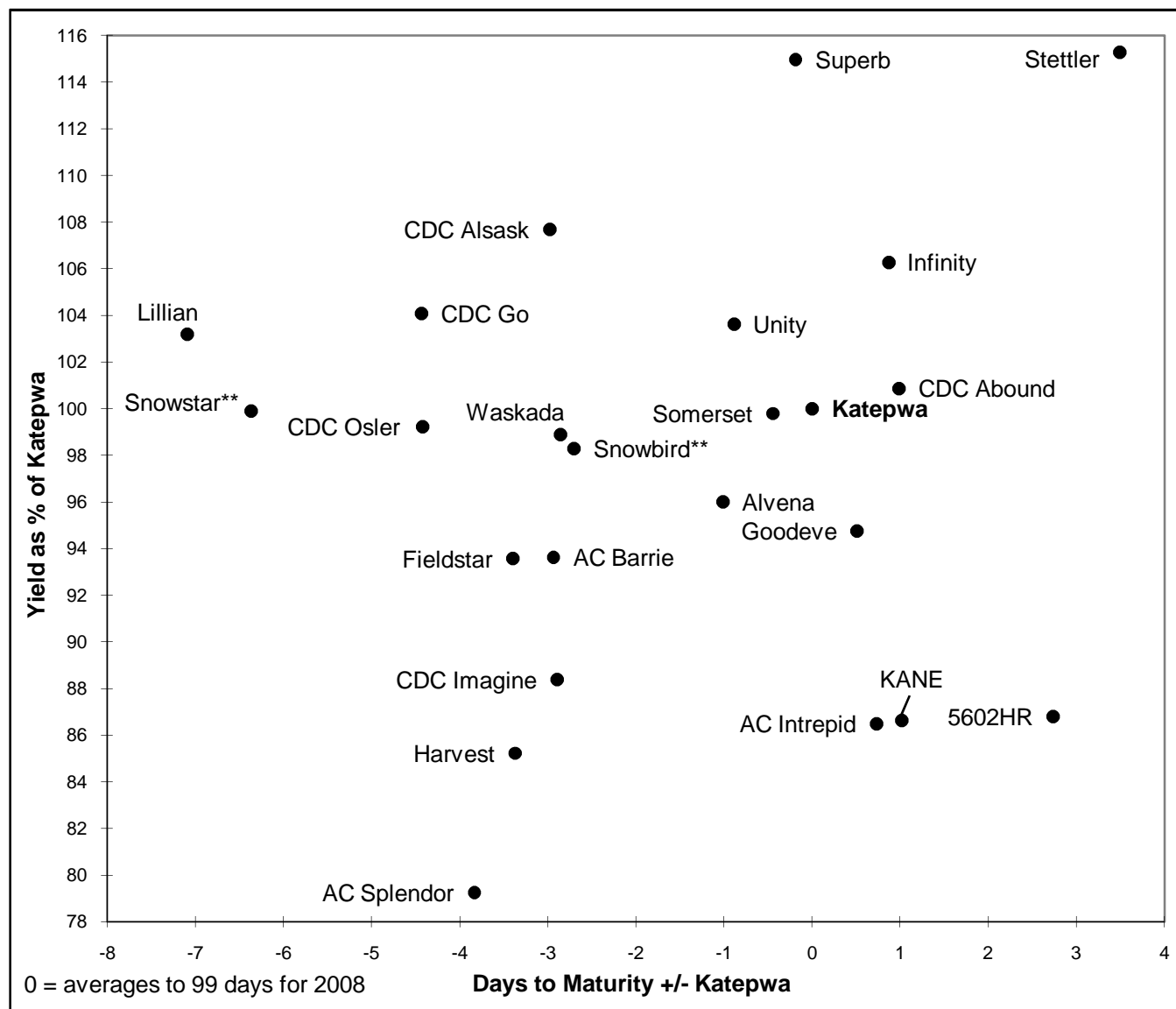
Disease Rating: R = Resistant, I = Intermediate, S = Susceptible

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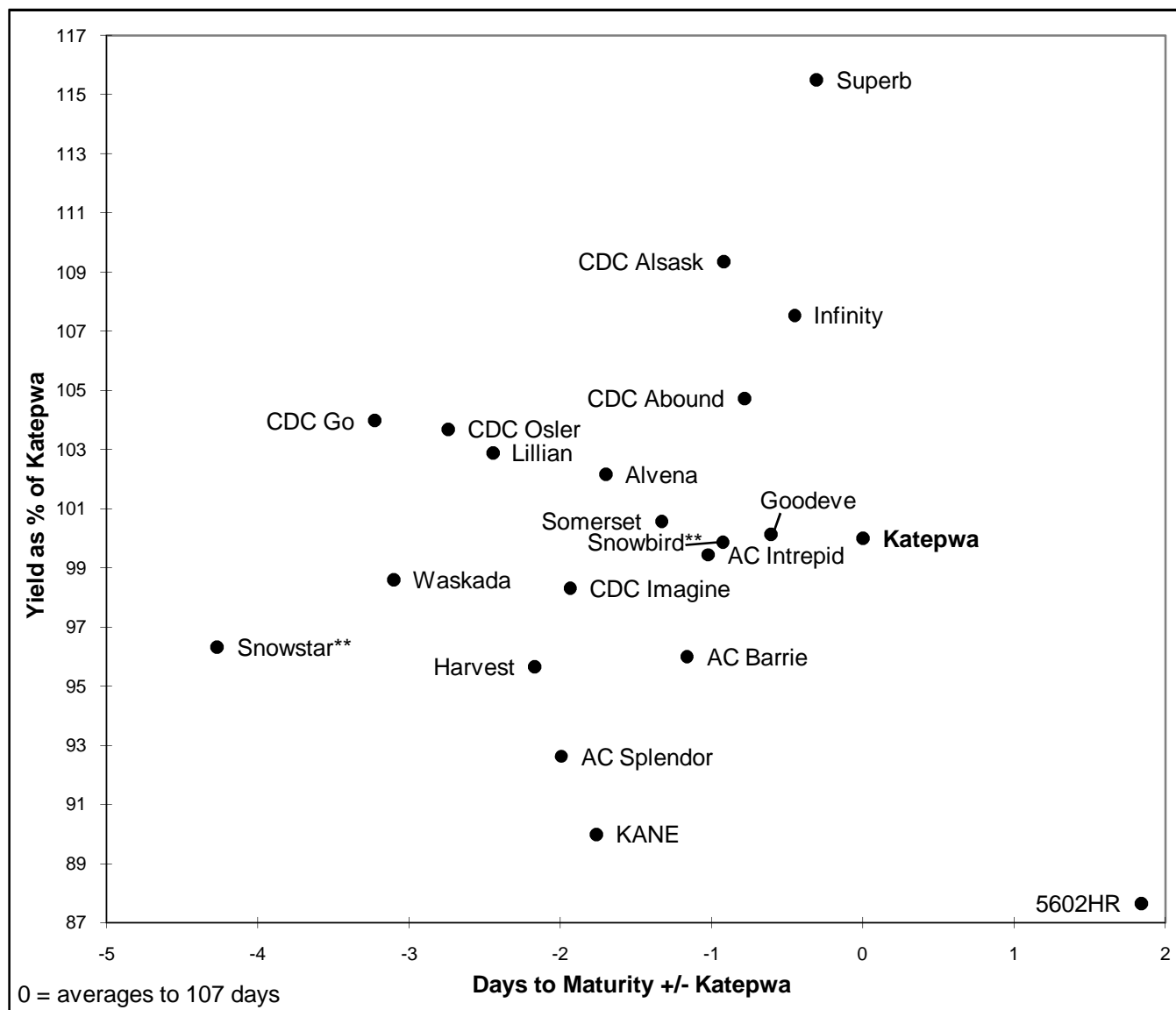
XX = insufficient data

Average maturity for **Katepwa** is 107 days

Average protein for **Katepwa** is 13%



** Canadian Western Hard White Spring Wheat



** Canadian Western Hard White Spring Wheat

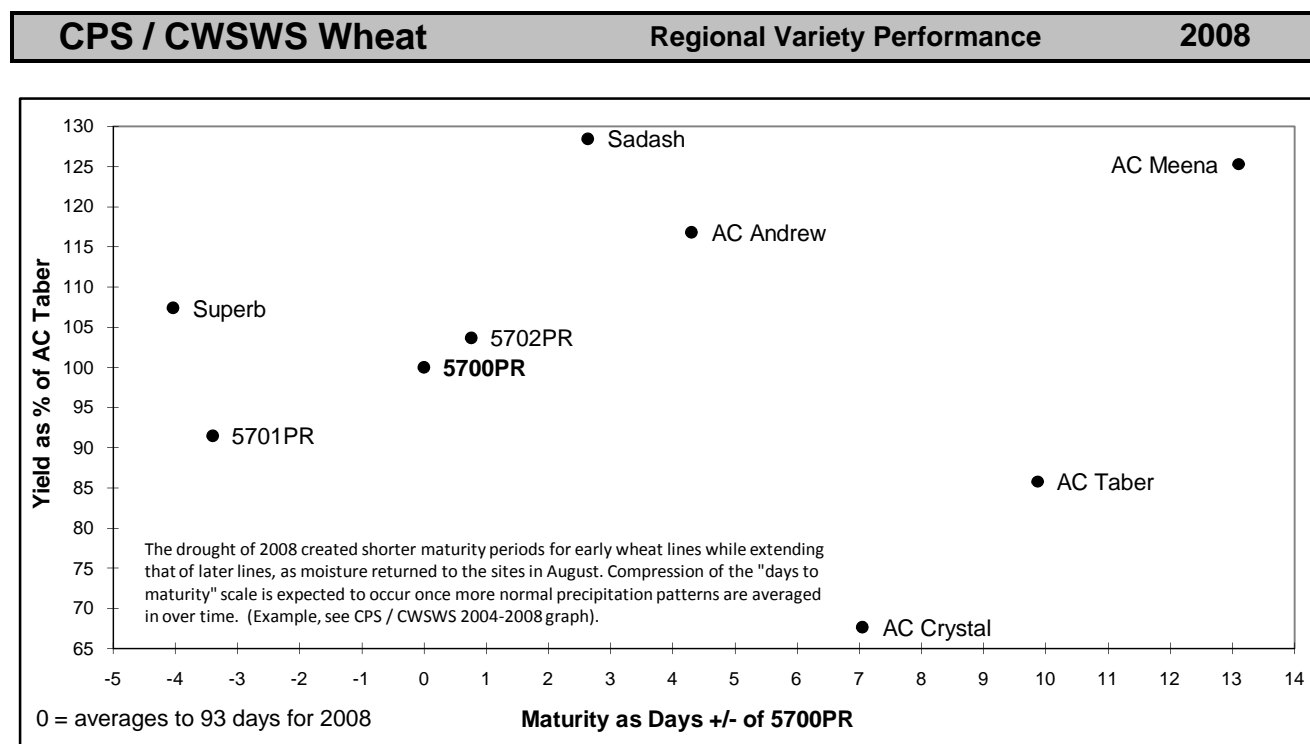
CANADA PRAIRIE SPRING WHEAT

CANADA WESTERN SOFT WHITE SPRING WHEAT

All current Canada Prairie Spring varieties should be treated with a systemic fungicide seed treatment to control smut. Avoid deep seeding CPS or CWSWS wheats. Note the long maturity periods required for the production of currently available CWSWS wheat varieties. Seeding rates for both these classes of wheat should be increased 20 to 25% due to the larger kernel size.

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

CPS / CWSWS Wheat							Yield as % of 5700PR								
Variety	Type	Dawson Creek					Fort St. John				B.C. Peace				
		2008 Yield			2004-2008		2008 Yield		2004-2008		2008	2004-2008			
		bus / acre	% of check		Avg. (%)	Stn. Yrs.	bus / acre	% of check		Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
5700PR	CPS red	23	ab	100	100	[4]	50	b	100	100	[5]	100	100	[9]	
5701PR	CPS red	19	b	84	88	[4]	49	b	99	95	[5]	91	92	[9]	
5702PR	CPS red	23	ab	99	101	[2]	54	b	109	109	[2]	104	105	[4]	
AC Andrew	CWSWS	24	ab	106	108	[2]	64	a	127	117	[2]	117	112	[4]	
AC Crystal	CPS red	11	c	49	77	[3]	43	c	86	88	[4]	68	84	[7]	
AC Meena *	CWSWS	27	ab	117	117	[1]	67	a	134	134	[1]	125	125	[2]	
AC Taber	CPS red	17	b	76	90	[4]	48	b	96	92	[5]	86	91	[9]	
Sadash *	CWSWS	30	a	132	132	[1]	63	a	125	125	[1]	128	128	[2]	
Superb *	CWRS	26	ab	113	113	[1]	51	b	102	102	[1]	107	107	[2]	
LSD (P=.05) =		5.96						4.78							
CV value (%) =		15.52						6.02							



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

CPS / CWSWS Wheat

Variety Descriptions

B.C. Peace Averages						Data from Alberta Agdex 100/32											Distributor
Variety	Type	2004-2008				Resistance to:						Tolerance to:					
		Maturity	Height	Bushel	Kernel	Lodging	Shatter	Loose Smut	Common Bunt	Root Rot	Leaf Spot	Sprouting	FHB				
		in days	cm	Weight	Protein %												
		+/- check	cm	lbs/bu	+/- check												
■ 5700PR	CPS red	0	65	64	0 [9]	EX	G	S	R	I	P	P	VP	AgPro / Viterra/Proven			
■ 5701PR	CPS red	0	66	62	1 [9]	G	G	I	S	I	P	P	VP	AgPro / Viterra/Proven			
■ 5702PR	CPS red	1	68	62	0 [4]	XX	XX	XX	XX	XX	XX	XX	XX	Syngenta Seeds			
AC Andrew	CWSWS	4	67	63	0 [4]	XX	XX	S	I	XX	XX	F	XX	SeCan			
■ AC Crystal	CPS red	3	51	62	1 [7]	G	G	I	R	S	F	P	VP	SeCan			
AC Meena *	CWSWS	13	55	63	-1 [2]	XX	XX	S	S	I	XX	F	P	Haney Farms			
AC Taber	CPS red	3	64	63	1 [9]	G	G	S	R	I	F	P	VP	SeCan			
■ Sadash *	CWSWS	3	69	63	-1 [2]	XX	XX	XX	XX	XX	XX	XX	XX	SeCan			
■ Superb *	CWRS	-4	73	64	0 [2]	G	G	I	R	I	P	G	P	SeCan			

* first year tested, very limited data available

EX = excellent, VG = very good, G = good

5700PR - check variety

F = fair, P = poor (susceptible), VP = very poor (very susceptible)

Disease Rating: R = Resistant, I = Intermediate, S = Susceptible

XX = insufficient data

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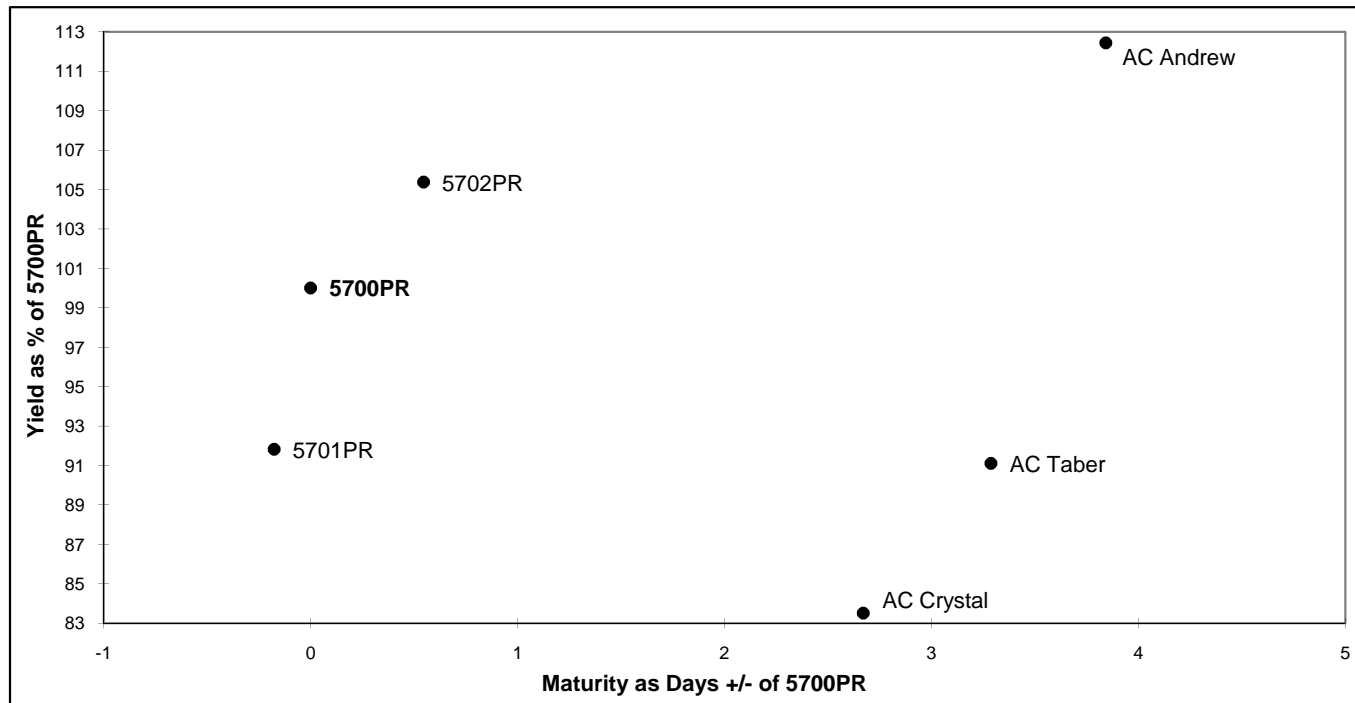
Average maturity for **5700PR** is 111.5 days.

Average protein for **5700PR** is 12%

CPS / CWSWS Wheat

Regional Variety Performance

2004 - 2008



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					Fort St. John					B.C. Peace		
		2008 Yield			2004-2008		2008 Yield			2004-2008		2008	2004-2008	
		bus / acre	% of check		Avg. (%)	Stn. Yrs.	bus / acre	% of check		Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Albright	feed	21	abc	100	94	[3]	63	cde	82	87	[5]	91	90	[8]
AC Lacombe	feed	20	abc	94	96	[3]	68	a-d	89	99	[5]	91	98	[8]
AC Metcalfe	2R malt	21	abc	100	100	[3]	77	ab	100	100	[5]	100	100	[8]
Alston	feed	22	ab	105	105	[1]	72	a-d	93	99	[3]	99	101	[4]
CDC Battleford	malt	22	abc	103	104	[3]	71	a-d	93	95	[5]	98	98	[8]
CDC Clyde	malt	24	a	111	110	[2]	58	e	75	93	[4]	93	99	[6]
CDC Kamsack *	malt	17	c	79	79	[1]	67	b-e	87	87	[1]	83	83	[2]
CDC Mayfair *	malt	24	a	112	112	[1]	65	cde	85	85	[1]	99	99	[2]
Chigwell *		22	abc	102	102	[1]	74	abc	96	96	[1]	99	99	[2]
Johnston	feed	23	a	108	108	[1]	78	a	102	99	[2]	105	102	[3]
Stellar-ND	malt	19	abc	91	91	[1]	58	e	75	77	[3]	83	80	[4]
Sundre	feed(smooth awn)	17	bc	81	99	[2]	67	b-e	88	109	[4]	84	105	[6]
Tradition	malt	22	abc	102	96	[3]	62	de	81	93	[5]	91	94	[8]
Trochu	feed	23	a	110	103	[3]	69	a-d	89	100	[5]	99	101	[8]
Vivar	feed (sd)	21	abc	98	104	[2]	70	a-d	90	97	[4]	94	99	[6]
LSD (P=.05) =		3.12					6.50							
CV value (%) =		10.17					6.71							

Two Row Barley

Yield as % of AC Metcalfe

Variety	Type	Dawson Creek					Fort St. John					B.C. Peace		
		2008 Yield			2003-2008		2008 Yield			2004-2008		2008	2003-2008	
		bus / acre	% of check		Avg. (%)	Stn. Yrs.	bus / acre	% of check		Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Metcalfe	malt	21	bc	100	100	[5]	73	a-e	100	100	[5]	100	100	[10]
<i>Bentley</i> *	malt	24	bc	112	112	[1]	74	a-e	102	102	[1]	107	107	[2]
<i>Busby</i> *	feed	20	bc	96	96	[1]	84	a	116	116	[1]	106	106	[2]
CDC Coalition	feed	24	bc	113	107	[2]	82	ab	113	109	[2]	113	108	[4]
CDC Copeland	malt	18	c	85	93	[5]	75	a-e	103	97	[5]	94	95	[10]
CDC Cowboy	forage	22	bc	104	100	[3]	60	f	83	91	[4]	94	94	[7]
CDC Helgason	feed	18	c	83	97	[5]	68	c-f	93	98	[5]	88	98	[10]
<i>CDC Landis</i> *	malt	21	bc	101	101	[1]	77	a-e	106	106	[1]	104	104	[2]
<i>CDC Meredith</i> *	malt	25	bc	117	117	[1]	80	abc	110	110	[1]	113	113	[2]
CDC MinDon	feed, low DON	21	bc	101	101	[2]	68	c-f	93	96	[2]	97	98	[4]
<i>CDC Reserve</i> *	malt	25	ab	121	121	[1]	80	abc	110	110	[1]	115	115	[2]
Champion	feed	31	a	147	129	[2]	73	a-e	100	104	[3]	124	114	[5]
CONLON	malt	26	ab	122	106	[3]	60	f	83	83	[4]	102	93	[7]
<i>Merit 16</i> *	malt	26	ab	125	125	[1]	76	a-e	105	105	[1]	115	115	[2]
<i>Merit 57</i> *	malt	23	bc	108	108	[1]	81	abc	112	112	[1]	110	110	[2]
Newdale	malt	26	ab	124	108	[3]	76	a-e	105	104	[3]	114	106	[6]
<i>Norman</i> *	malt	24	bc	115	115	[1]	64	ef	88	88	[1]	102	102	[2]
Ponoka	feed	22	bc	106	112	[5]	78	a-d	107	109	[5]	106	110	[10]
XENA	feed	22	bc	104	108	[5]	66	def	91	102	[5]	98	105	[10]
LSD (P=.05) =		4.13					7.57							
CV value (%) =		12.75					7.30							

(sd) semi-dwarf type

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

AC Metcalfe - check variety

* first year tested, very limited data available

Feed Barley										Variety Descriptions									
Variety	Type	B.C. Peace Averages							Alberta Agdex 100/32 info										Distributor
		2004-2008				0-9 scale (0=nil)**			Resistance to										
		Days to	Bushel	Kernel	Protein %	Scald	Net	Blotch	Lodging	Loose	Smut	False	Smut	Root Rot	Scald	FHB	Tolerance		
		Maturity	Height	Weight														+	
Eligible for General Purpose Grades Only																			
AC Albright	6 row	-6	71	51	0	[9]	1.8	1.5	XX	S	S	S	S						SeCan
■ AC Lacombe	6 row	-1	64	49	-2	[9]	1.6	1.7	G	S	R	S	I	VP					SeCan
■ Alston	6 row	-5	53	49	-1	[5]	XX	XX	G	S	R	I	S	P					Viterra
Busby *	2 row	0	44	53	-1	[2]	XX	XX	XX	XX	XX	XX	XX	XX	XX				AAFD Lacombe
■ CDC Coalition	2 row	2	58	54	0	[4]	XX	XX	XX	XX	XX	XX	XX	XX	XX				Canterra
■ CDC Helgason	2 row	-1	65	54	0	[9]	2.0	1.5	G	R	R	I	S	P					SeCan
■ CDC MinDon	2 row	0	63	54	0	[4]	XX	XX	XX	XX	XX	XX	XX	XX	XX				SeCan
■ Champion	2 row	1	59	54	0	[5]	XX	XX	G	S	R	I	S	G					Viterra
■ Chigwell *	6 row	2	43	49	0	[2]	XX	XX	XX	XX	XX	XX	XX	XX	XX				SeCan
■ Ponoka	2 row	2	66	54	-1	[9]	1.3	1.0	G	R	R	I	I	F					SeCan
■ Sundre	6 row	2	69	53	-2	[7]	1.5	2.8	G	S	R	S	R	P					Mastin Seeds, AB
■ Trochu	6 row	-3	62	51	-2	[9]	2.0	1.1	G	S	R	R	I	P					SeCan
■ XENA	2 row	2	65	54	0	[9]	2.1	1.5	G	S	I	R	S	G					Viterra
Semi-dwarf varieties																			
■ Vivar	6 row	-1	66	51	-2	[7]	2.4	1.4	VG	I	R	R	I	VP					SeCan
Hulless varieties																			
Forage varieties																			
■ CDC Cowboy	2 row	2	84	55	0	[7]	2.4	1.3	G	S	R	XX	S	G					SeCan
Johnston	6 row	1	66	51	-2	[4]	XX	XX	XX	XX	XX	XX	XX	XX	XX				SeCan

Malt Barley										Variety Descriptions									
Variety	Type	B.C. Peace Averages							Alberta Agdex 100/32 info										Distributor
		2004-2008				0-9 scale (0=nil)**			Resistance to										
		Days to	Bushel	Kernel	Protein %	Scald	Net	Blotch	Lodging	Loose	Smut	False	Smut	Root Rot	Scald	FHB	Tolerance		
		Maturity	Height	Weight														check	
		+/-	cm	lbs/bu	check														
■ AC Metcalfe	2 row	0	65	54	0	[9]	2.0	1.8	F	R	I	I	S	F				SeCan	
<i>Bentley</i> *	2 row	0	44	52	-1	[2]	XX	XX	XX	XX	XX	XX	XX	XX				Canterra	
■ CDC Battleford	6 row	-2	65	51	-1	[9]	2.4	1.3	G	S	R	R	S	VP				SeCan	
■ CDC Clyde	6 row	-6	59	51	-1	[7]	3.3	1.7	G	S	S	R	S	P				Viterra	
■ CDC Copeland	2 row	2	70	52	0	[9]	2.5	1.4	F	S	I	I	S	F				SeCan	
■ <i>CDC Kamsack</i> *	6 row	-8	40	51	-1	[2]	XX	XX	XX	XX	XX	XX	XX	XX				Canterra	
■ <i>CDC Landis</i> *	2 row	2	42	54	0	[2]	XX	XX	XX	XX	XX	XX	XX	XX				CDC Saskatoon	
■ <i>CDC Mayfair</i> *	6 row	-9	43	48	-1	[2]	XX	XX	XX	XX	XX	XX	XX	XX				Canterra	
■ <i>CDC Meredith</i> *	2 row	3	44	52	-2	[2]	XX	XX	XX	XX	XX	XX	XX	XX				SeCan	
■ <i>CDC Reserve</i> *	2 row	-4	45	53	-1	[2]	XX	XX	XX	XX	XX	XX	XX	XX				SeCan	
■ CONLON	2 row	-5	67	54	0	[7]	3.9	2.8	G	XX	S	R	S	G				Seed Depot Corp.	
■ <i>Merit 16</i> *	2 row	2	42	52	-1	[2]	XX	XX	XX	XX	XX	XX	XX	XX				Busch Ag.	
■ <i>Merit 57</i> *	2 row	4	43	53	-1	[2]	XX	XX	XX	XX	XX	XX	XX	XX				Busch Ag.	
■ Newdale	2 row	-1	62	53	0	[5]	XX	XX	F	S	R	R	S	F				FarmPure Seeds	
<i>Norman</i> *	2 row	-4	40	53	1	[2]	XX	XX	XX	XX	XX	XX	XX	XX				AAFC Brandon	
■ Stellar-ND	6 row	-5	59	49	-1	[5]	XX	XX	XX	XX	XX	XX	XX	XX				Busch Ag	
■ Tradition	6 row	-4	66	52	-1	[9]	3.0	1.2	G	S	R	R	S	VP				Busch Ag	

(sd) semi-dwarf variety

* first year tested, very limited data available

EX = excellent, VG = very good, G = good

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** 0 - 9 scale; 0 = none, 9 = 100% affected

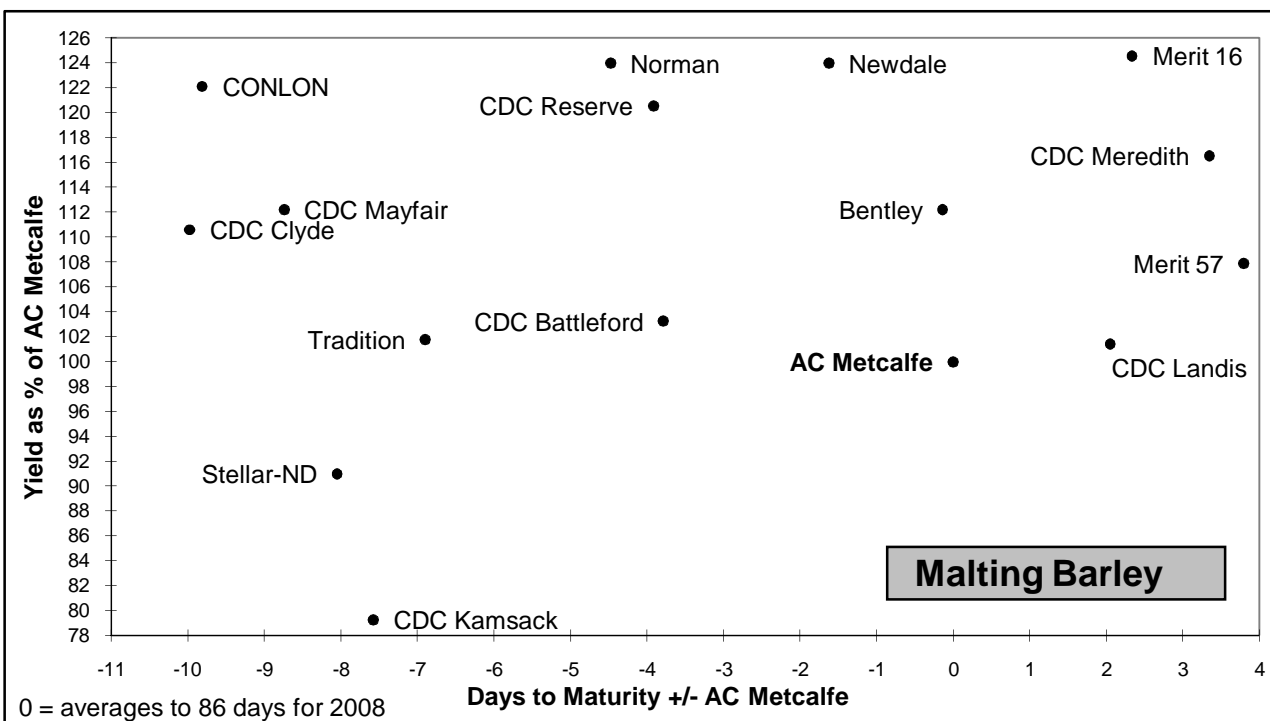
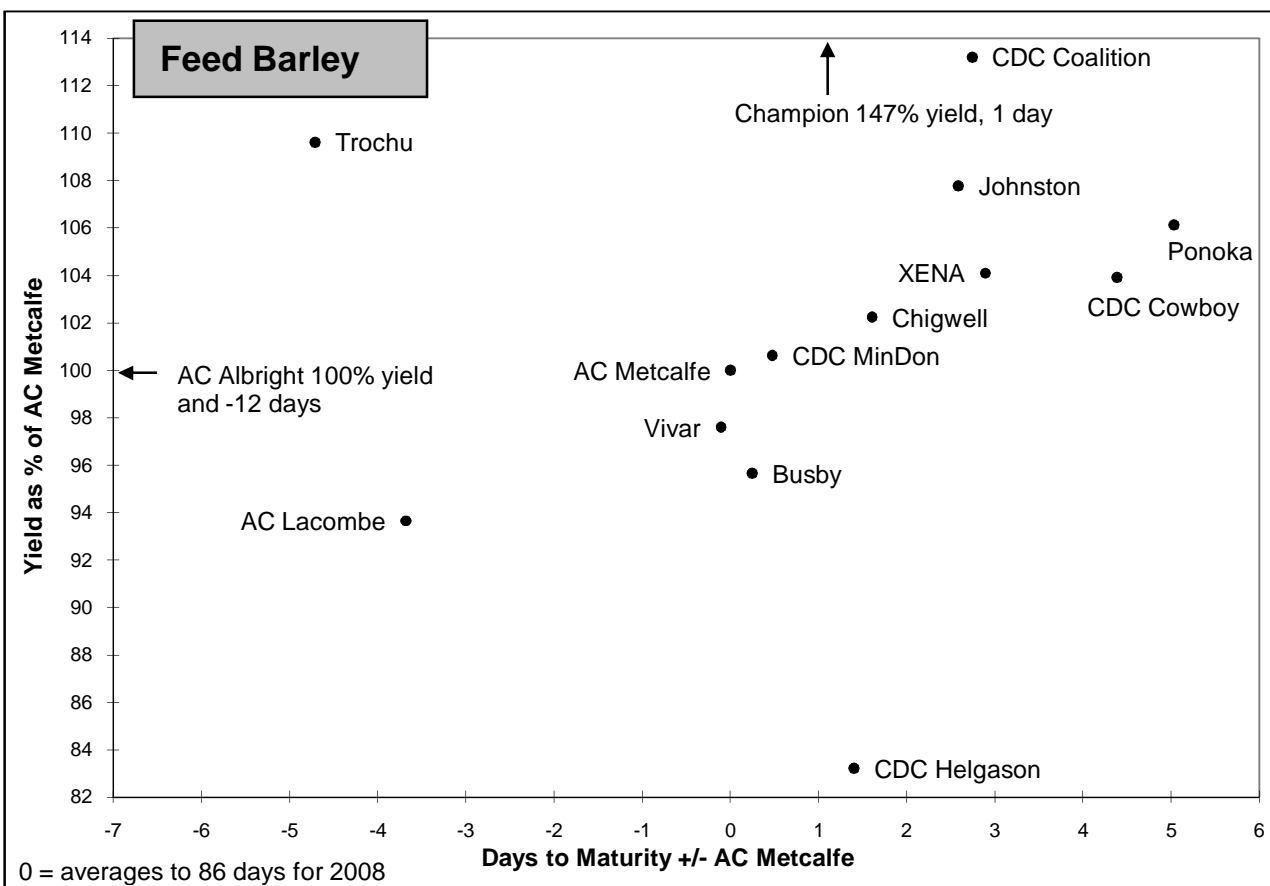
F = fair, P = poor, VP = very poor

R = Resistant I = Intermediate S = Susceptible

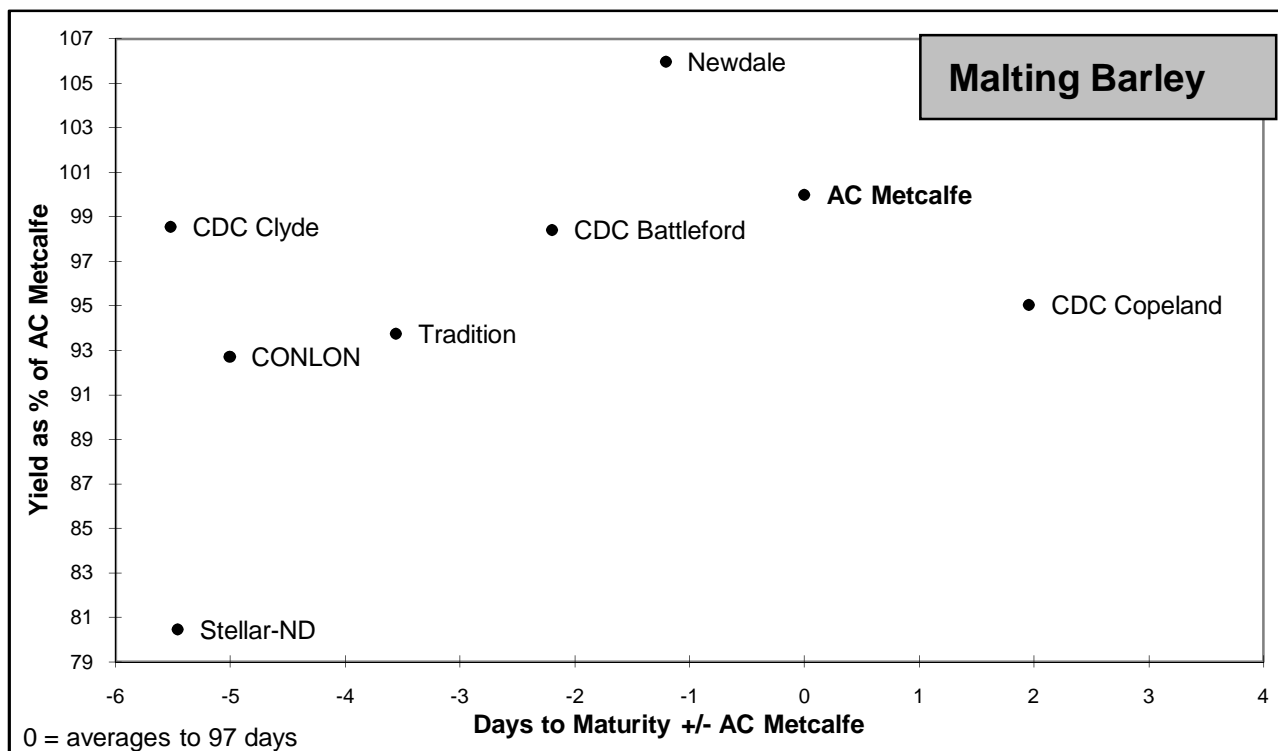
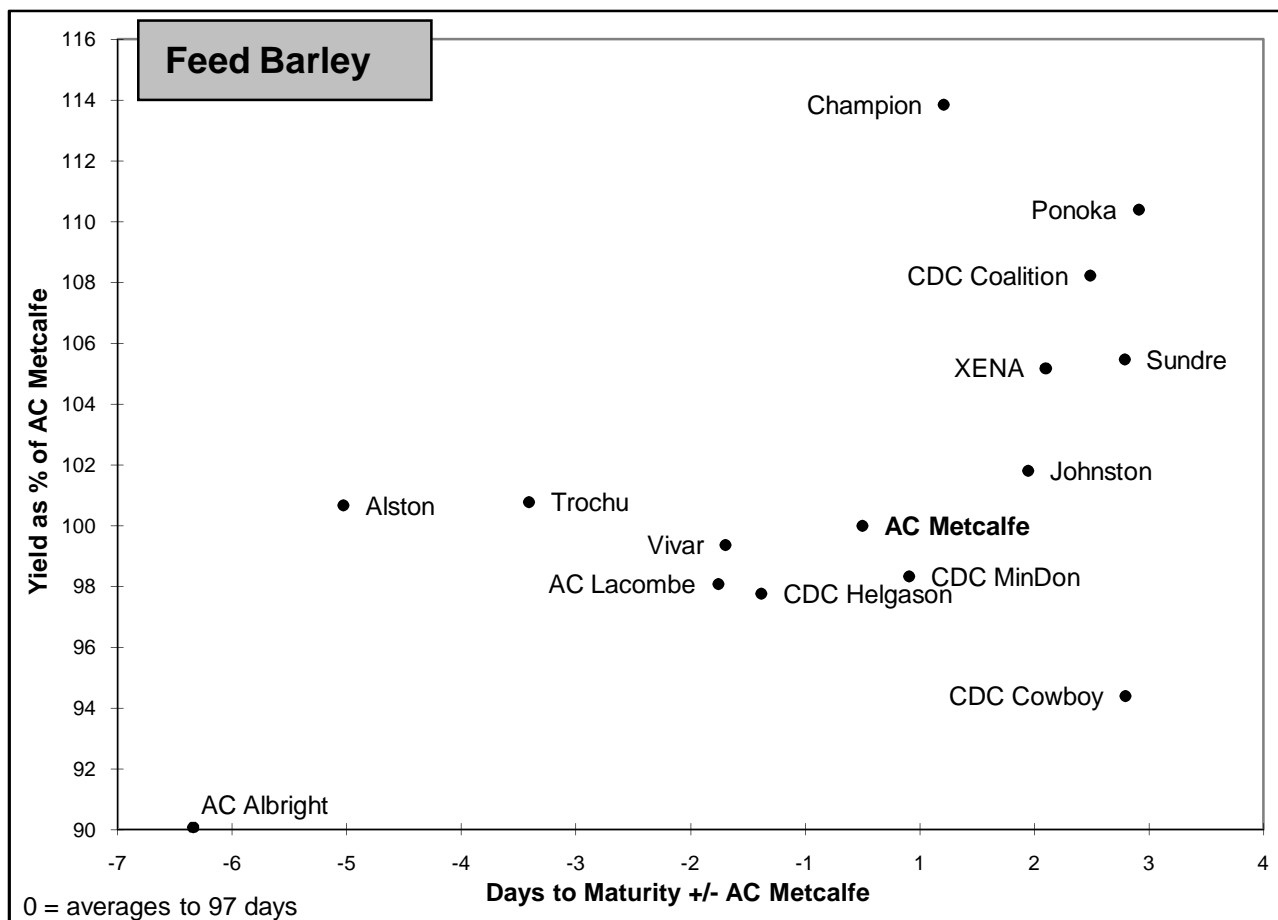
AC Metcalfe - check variety

Average maturity for **AC Metcalfe** is 97 days.

Average Protein for **AC Metcalfe** is 13.8%



Note: The drought of 2008 created shorter maturity periods for early barley lines while extending that of later lines, as moisture returned to the sites in August. Compression of "days to maturity" is expected to occur as more normal precipitation patterns become averaged in over time. (Example, see Feed Barley & Malt Barley 2004-2008 graph).



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				Fort St. John				B.C. Peace		
		2008 Yield		2005-2008		2008 Yield		2005-2008		2008	2005-2008	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Morgan	white	80 abc	104	104	[4]	94 a	104	105	[4]	104	104	[8]
AC Mustang	white	86 ab	112	105	[4]	99 a	109	110	[4]	110	108	[8]
Cascade	yellow	77 bcd	100	100	[4]	91 a	100	100	[4]	100	100	[8]
CDC Dancer	white	71 bcd	92	89	[3]	84 a	93	95	[4]	92	92	[7]
<i>CDC Minstrel *</i>	white	68 cd	88	88	[1]	87 a	95	95	[1]	92	92	[2]
CDC Orrin	white	87 ab	113	107	[4]	102 a	113	108	[4]	113	108	[8]
CDC ProFi	white	73 bcd	95	86	[2]	87 a	96	92	[2]	95	89	[4]
CDC Weaver	white	81 abc	105	95	[4]	98 a	107	104	[4]	106	100	[8]
Jordan	white	87 ab	113	103	[3]	95 a	105	112	[3]	109	108	[6]
Lu	yellow	63 d	82	91	[4]	85 a	93	93	[4]	88	92	[8]
Murphy (forage oat)	white	71 bcd	92	90	[4]	96 a	105	104	[4]	99	97	[8]
SW Betania	white	71 bcd	93	92	[4]	90 a	99	98	[4]	96	95	[8]
Triactor	white	95 a	123	118	[2]	98 a	108	107	[2]	115	113	[4]
LSD (P=.05) =		10.10				22.33						
CV value (%) =		9.12				14.41						

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



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 Avg. (2005-2008)			Resistance to:		Distributor
		Maturity as days +/- check	Height cm	Bushel Weight lbs/bu	Lodging	Smuts	
AC Morgan	milling / feed	5	77	41	VG	R	SeCan
AC Mustang	feed / forage	3	82	44	G	I	Mastin Seeds, AB
Cascade	feed	0	83	42	G	S	SeCan
■ CDC Dancer	milling	0	69	41	G	R	FarmPure Seeds
■ CDC <i>Minstrel</i> *	milling	6	71	42	XX	XX	FP Genetics
■ CDC Orrin	milling	5	78	43	G	R	FarmPure Seeds
CDC ProFi	milling	6	72	39	XX	XX	FarmPure Seeds
■ CDC Weaver	milling	7	77	40	F	R	FarmPure Seeds
■ Jordan	milling	9	74	41	G	R	SeCan
Lu	feed	-2	74	41	G	R	SeCan
■ Murphy	forage	5	96	40	XX	S	SeCan
■ SW Betania	milling	0	72	41	G	R	Viterra/Proven
■ Triactor	milling / feed	4	75	39	XX	XX	Canterra Seeds

Cascade - check variety

EX = excellent, VG = very good, G = good, F = fair, P = poor (susceptible)

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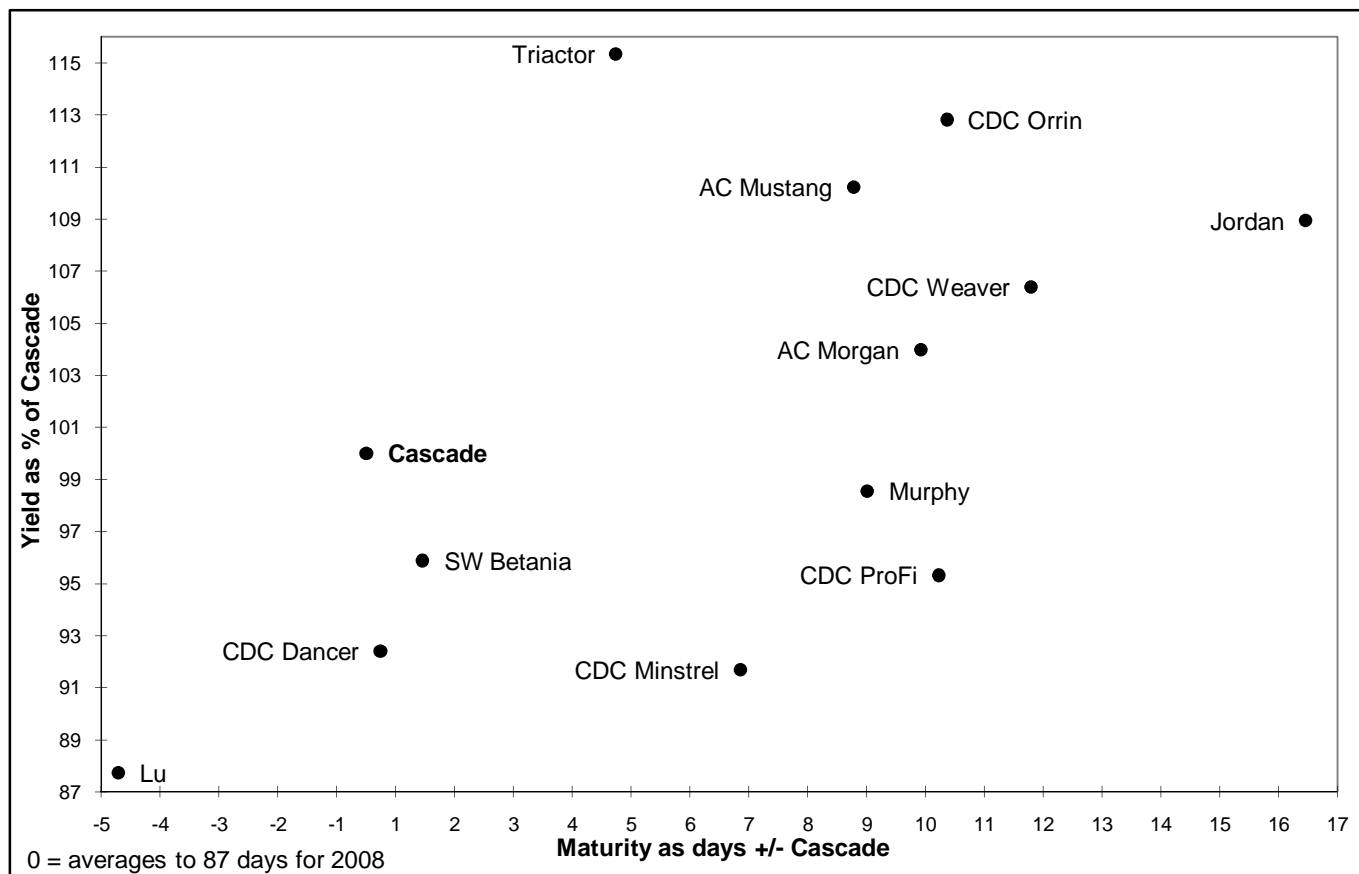
S = Susceptible I = Intermediate R = Resistant

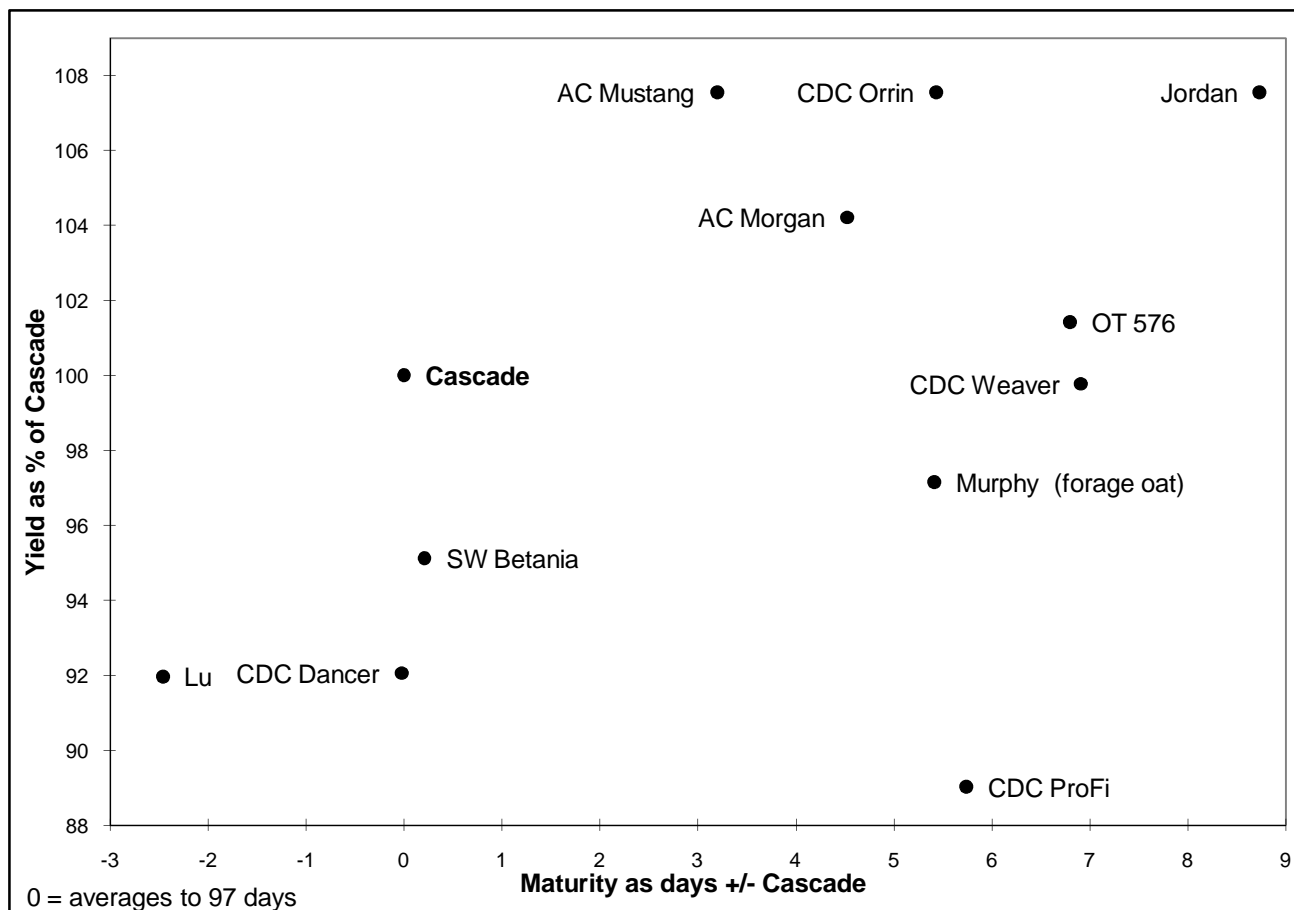
XX = insufficient data

Average maturity for **Cascade** is 97 days.

* first year tested, very limited data available

Oats Regional Variety Performance 2008





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 protein¹. Many years of comparing yields of oats with barley have shown oats to be superior in the Black and Grey Wooded soil zones¹. Although the percent protein level in barley is higher than in oats, the total amount of protein produced on a given area is higher with oats than with barley¹. Oats have about 22-26 percent hull whereas barley averages about 12-14 percent hull on a weight basis¹. When choosing a variety, the seed yield as well as the forage yield should be considered, thereby keeping one's options open to harvest as forage or grain¹. We do not currently evaluate oat varieties for forage yield in these tests.

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

Other Comments

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

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

SPRING TRITICALE

Triticale is a genetic cross (not a hybrid) developed by crossing wheat (*Triticum turgidum* or *Triticum aestivum*) with rye (*Secale 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 consistent and early enough maturity. Their high grain yields are "attention grabbers", and so it is worth watching their development, especially as triticale seems to hold a lot of potential for ethanol production in the Peace River region if breeding efforts could produce earlier maturing lines. Drought tolerance is the primary advantage that spring triticales have over other spring cereal crops. Spring triticales are also a valuable alternative or complement to barley & oats as forage feed. It is for these reasons, especially its potential use as a high volume ethanol feedstock, that data is included

Spring Triticale		Yield as % of Pronghorn									
Variety	Dawson Creek				Fort St. John				B.C. Peace		
	2008 Yield		2004-2008		2008 Yield		2004-2008		2008	2004-2008	
	bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Alta	30	a	109	101 [4]	77	a	118	107 [4]	113	104	[8]
AC Ultima	28	a	101	108 [5]	60	c	91	93 [5]	96	100	[10]
Bunker	22	a	79	83 [3]	54	d	83	85 [3]	81	84	[6]
Pronghorn	28	a	100	100 [5]	65	b	100	100 [5]	100	100	[10]
Tyndal	31	a	111	124 [3]	67	b	102	101 [3]	107	113	[6]
LSD (P=.05) = 6.17					4.50						
CV value (%) = 14.49					4.52						

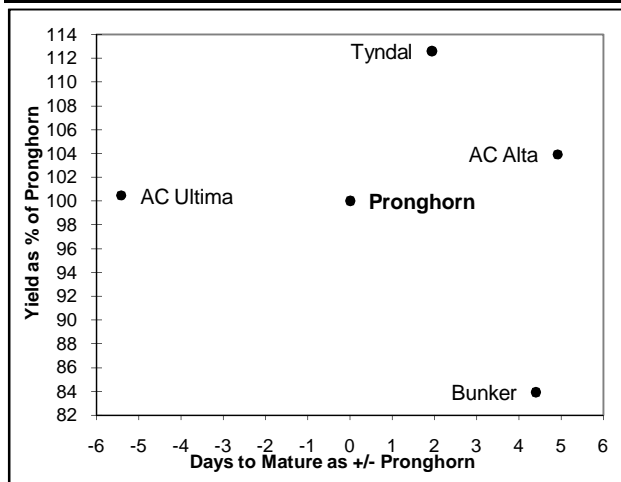
Means followed by the same letter do not significantly differ (P=.05, LSD)

Pronghorn - check variety

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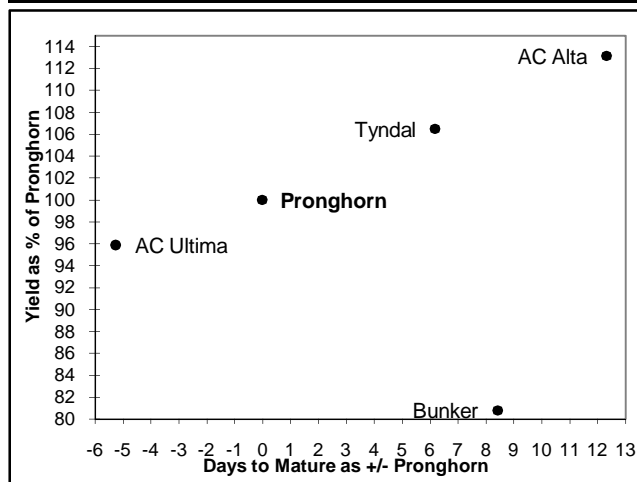
Spring Triticale		Variety Descriptions			
	Maturity as days +/- check	Height (cm)	Bushel Weight (lbs/bus)	TKW (g / 1000)	Distributor
AC Alta	5	84	53	51	Progressive
AC Ultima	-5	85	56	44	FarmPure Seeds
■ Bunker	4	85	57	48	FarmPure Seeds
■ Pronghorn	0	86	56	43	Progressive
Tyndal	2	81	58	42	SeCan

Regional Variety Performance 2004 - 2008



Average long-term maturity for **Pronghorn** is 121 days.

Regional Variety Performance 2008

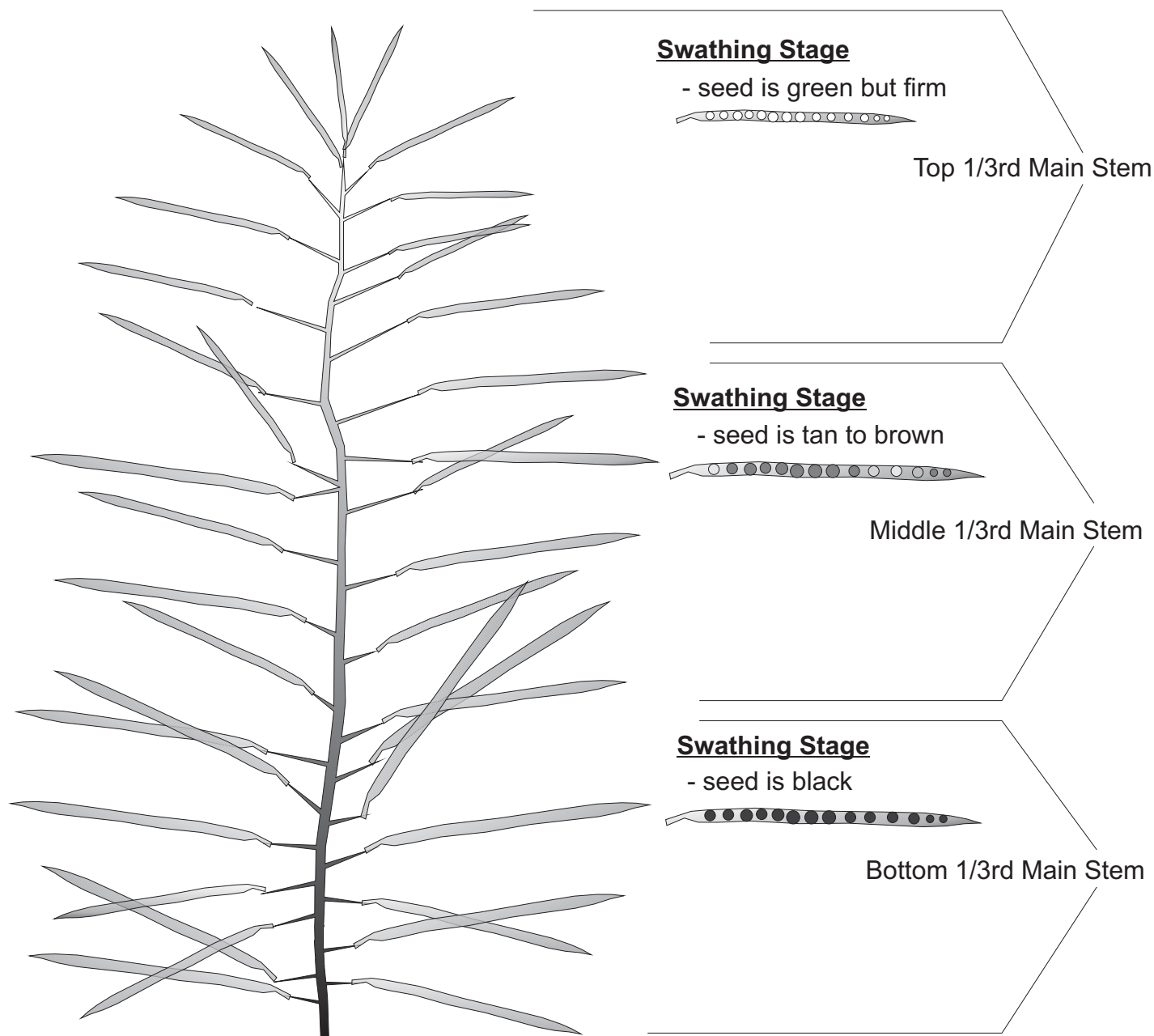


2008 days to maturity for **Pronghorn** is 104 days

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

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Perhaps the worst current “pest” threat to canola in the BC Peace isn’t a “bug” at all, but a fungus: 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](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 last year 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 www.weedsbc.ca or ask for a poster at the BC MAL office. The NorthEast Invasive Plant Committee with your help is working hard to keep these and other species out of the region.

The BC Peace region is not 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), on websites such as Canola Council http://www.canola-council.org/canola_watch.aspx, and at other websites mentioned below.

Below are brief discussions of five insect pests that have caused significant damage in the past: flea beetles, cut worms, lygus bugs, Bertha armyworm and diamondback moth.

Flea beetles: at the emergence to cotyledon crop stage, high beetle populations can move from last year’s fields and gradually add damage to a slower emerging crop when the weather is dry or cool and seed treatments have worn off from early seeding, or a switch to warm weather can make the beetles active and destroy a crop in a day or two. While there is always some flea beetle damage, plants in good growing conditions can quickly outgrow damage that is below the economic threshold. Canola seedlings can withstand 50 % leaf loss, but a decision to treat should be made when damage approaches 25 % of the leaf surface. Checking the intensity of beetles on early weeds or volunteer canola more developed than the crop can give a warning of crop damage to come.

Cut worms: are less common than flea beetles and cause damage only in fields where they were last fall. Each plant fed on is killed, so plants up to a few leaves can disappear in patches.

Lygus bugs: do their greatest damage to buds or developing pods. Healthy plants with moisture can compensate for damage, but high populations damaging plants before bolting may be worth treatment. A sweep net and threshold numbers (see Crop Watch reports) could help make a valid treatment decision.

Bertha armyworm and diamond back moth caterpillars feed on canola leaves and in certain years can destroy crops. Bertha populations result from last year’s population in the same area, so it could be valuable to be aware of monitoring from the previous summer, if it indicates some developing possible “hot spots” in the Peace (2008 was not a bad year for Bertha armyworm). Diamondback moths arrive on the wind in Canada each spring, so are not related to last year’s population. Fact sheets for both these species are available at the website: <http://www.agf.gov.bc.ca/cropprot/forecastmaps.htm>

Contact the BC Agriculture office if you would like to be involved in monitoring for these pests.
Kerry.clark@gov.bc.ca Crop Protection Specialist

Argentine Canola
Yield as % of 45H21

Variety	Type	Dawson Creek			Fort St. John			B.C. Peace		
		2008**	2004-2007		2008	2004-2008		2008	2004-2008	
		% of check	Avg. (%)	Stn. Yrs.	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
4414 RR	Roundup Ready®		105	[1]	105	103	[2]	105	103	[3]
4424 RR *	Roundup Ready®				119	119	[1]	119	119	[1]
4434 RR *	Roundup Ready®				103	103	[1]	103	103	[1]
45H21	Roundup Ready®		100	[3]	100	100	[5]	100	100	[8]
46P50	Roundup Ready®		127	[1]	121	119	[3]	121	121	[4]
997 RR	Roundup Ready®		96	[1]	100	95	[3]	100	95	[4]
D3150 *	Roundup Ready®				113	113	[1]	113	113	[1]
D3151 *	Roundup Ready®				101	101	[1]	101	101	[1]
Rugby	Roundup Ready®		115	[1]	100	103	[2]	100	107	[3]
v1037	Roundup Ready®				96	96	[1]	96	96	[1]
5020	LibertyLink®		113	[3]	123	108	[5]	123	110	[8]
5030	LibertyLink®		117	[3]	108	108	[5]	108	111	[8]
5440	LibertyLink®		120	[1]	127	123	[2]	127	122	[3]
45P70	Clearfield®		110	[1]	106	108	[3]	106	108	[4]
5505 CL *	Clearfield®				120	120	[1]	120	120	[1]

45H21 - check variety

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

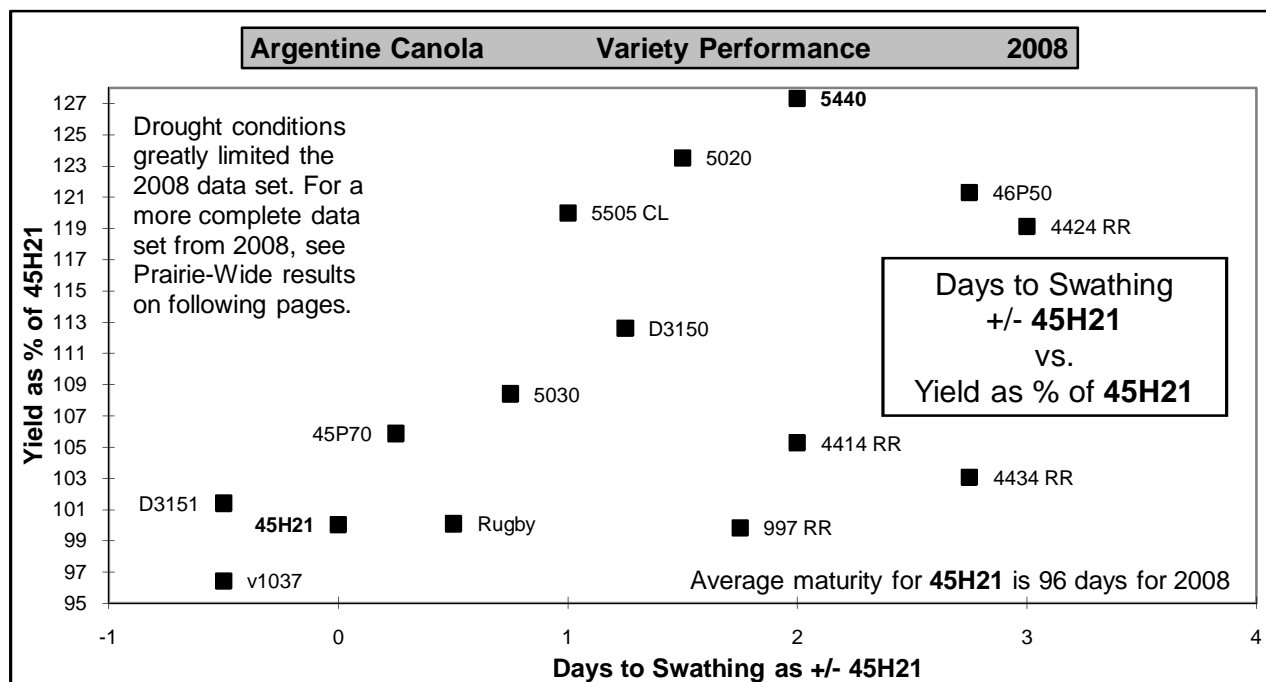
**No 2008 data for Dawson Creek site due to drought

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LibertyLink® is a registered trademark of Bayer CropScience

Clearfield® is a registered trademark of BASF

Note: "System Varieties" (Clearfield®, Roundup Ready®, or LibertyLink®) are grown together in with "conventional" Argentine varieties (actually as three napus trials with a common check per site) and thus, conventional herbicides are used for weed control. (See page 6 for herbicides used). The three trials are usually combined to produce the chart above but that means statistical analysis cannot be shown for the entire group. Coefficient of Variance (CV) values of the napus trials for 2008 were as follows: FSJ = 12.15



Note: Above graph depicts limited data from FSJ. All other 2008 canola data grown at either DC or FSJ proved to be too variable for use due to the severe drought conditions at both FSJ and DC sites in 2008. For further 2008 canola data, please see data on page 25 & 26 produced from other short-season sites.

Argentine Canola					Variety Descriptions		
Variety	Type	Herbicide Tolerance	B.C. Peace Avg.		Alberta Agdex	Canola Council of Canada	Distributor
			Days to Swathing ¹		100/32	Blackleg	
			as +/- check		Straw Strength	Rating	
			2008	2004-2008	+ = better		
4414 RR	HYB	Roundup Ready®	2	2	0	R	Brett-Young
4424 RR *	HYB	Roundup Ready®	3	3	0	MR	Brett-Young
4434 RR *	HYB	Roundup Ready®	3	3	0	MR	Brett-Young
45H21	HYB	Roundup Ready®	0	0	0	R	Pioneer Hi-Bred
46P50	HYB	Roundup Ready®	3	4	0	R	Viterra/Proven
997 RR	OP	Roundup Ready®	2	1	0	R	Brett-Young
D3150 *	HYB	Roundup Ready®	1	1	0	MR	DuPont Canada
D3151 *	HYB	Roundup Ready®	-1	-1	0	MR	DuPont Canada
■ Rugby	OP	Roundup Ready®	1	2	0	R	SeCan
v1037 *	HYB	Roundup Ready®	-1	-1	0	R	Cargill Spec.
5020	HYB	LibertyLink®	2	1	0	R	Bayer CropScience
5030	HYB	LibertyLink®	1	2	1	R	Bayer CropScience
5440	HYB	LibertyLink®	2	2	1	R	Bayer CropScience
45P70	HYB	Clearfield®	0	1	0	R	Viterra/Proven
5505 CL *	HYB	Clearfield®	1	1	0	MR	Brett-Young

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R = Resistant, MR = Moderately Resistant, MS = Moderately Susceptible

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

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

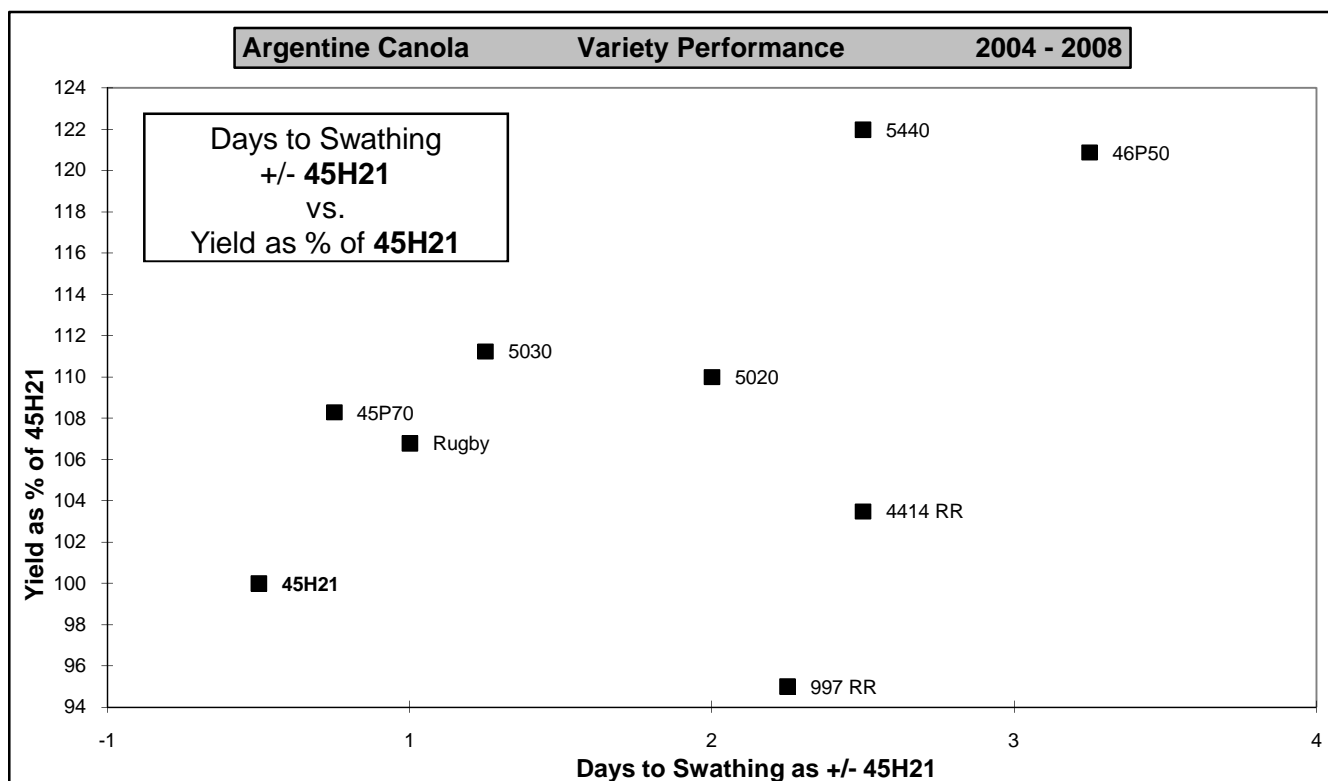
Roundup Ready® is a registered trademark of Monsanto Canada Inc.

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¹Note that the "Days to swathing" data is a date as defined by the Canola Council of Canada's definition for swathing. (Maturity descriptions on page 21).

Average number of days to swathing¹ for **45H21** is 96 days.



Note: Above graph depicts limited data as only certain lines came from statistically stable results in 2008 due to severe drought. Thus this then limits the number of varieties that can be displayed on this "across-the-years" summary graph. For further 2008 canola data, please see data on page 25 & 26 produced from other short-season sites.

Prairie Canola Variety Testing (PCVT) Program

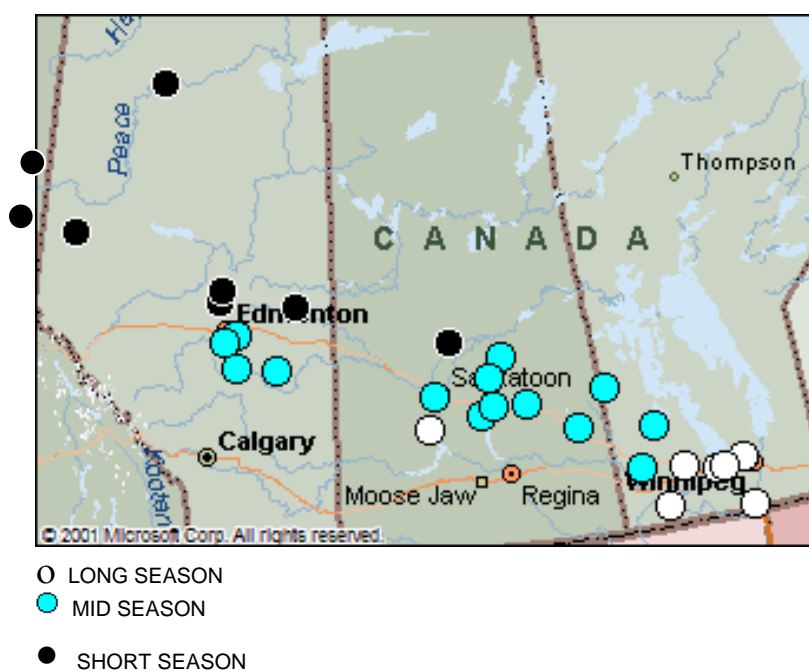
Background Information:

The Prairie Canola Variety Testing (PCVT) program entered its sixth year in 2008. 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.

2008 PCVT Locations:



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

2008 Prairie-Wide Canola Variety Testing - ALL ZONE SUMMARY

Variety B. napus (Argentina)		2006 Yield % of 46A65	2007 Yield % of 45H21, 5020	2008 Yield % of 45H21, 5020				2008 Days to Maturity +/- days to 45H21, 5020				Height +/- inches	Lodging rating +="-better"	Blackleg Rating	Organization
				Zones (Station Years)				Zones							
				Short (6)	Mid (14)	Long (7)	All Zone Average	short	mid	long	All Zones				
Checks	Type														
45H21, 5020	Hyb		100	100	100	100	100	99 days	98 days	97 days	98 days	0	0		
Conventional															
46A65	OP	100	83	82	83	73	80	2	1	1	1	-2	0	R	Pioneer Hi-Bred
Clearfield															
5505 CL	Hyb			92	93	89	91	3	2	2	2	3	0	MR	Brett-Young Seeds
71-30 CL	Hyb			98	94	93	95	-1	0	0	0	1	0	R	DEKALB
45H73	Hyb	123	98	97	100	98	99	1	1	2	1	1	0	R	Pioneer Hi-Bred
45P70	Hyb	121	102	97	99	97	98	1	1	0	1	1	0	R	Viterra
Liberty-tolerant															
5020	Hyb	127	101	106	105	107	105	-1	0	-1	0	0	0	R	Bayer CropScience
1143 **	Hyb		98	98	98	101	99	2	1	0	1	0	0	R	Bayer CropScience
1144 **	Hyb			107	103	108	105	0	1	0	1	0	0	MR	Bayer CropScience
5030	Hyb	129	114	105	106	114	108	-1	0	0	0	5	1	R	Bayer CropScience
5440	Hyb		115	109	108	115	110	1	2	1	1	4	1	R	Bayer CropScience
8440	Hyb		107	108	106	113	108	1	1	0	1	0	1	R	Bayer CropScience
9590	Hyb	127	107	100	106	112	106	-2	0	0	0	1	0	R	Bayer CropScience
Roundup-tolera															
45H21	Hyb	120	99	94	95	93	95	1	0	1	0	0	0	R	Pioneer Hi-Bred
4414 RR	Hyb			90	90	84	88	1	1	1	1	2	0	R	Brett-Young Seeds
4424 RR	Hyb			92	96	83	92	3	2	1	2	4	0	MR	Brett-Young Seeds
4434 RR	Hyb			88	90	85	88	3	2	1	2	2	0	MR	Brett-Young Seeds
997RR	OP			89	88	84	87	2	1	1	1	1	0	R	Brett-Young Seeds
v1037 **	Hyb			92	97	90	94	0	0	0	0	2	0	R	Cargill
v2018 **	Hyb		96		95	92	94		2	2	2	1	0	MR	Cargill
v2030 **	Hyb				97	88	94		1	1	1	2	0	MR	Cargill
83S01 RR	Syn		91		86	85	85		0	-1	0	2	0	MR	FP Genetics
93H01 RR	Hyb		95		95	88	93		1	1	1	2	0	MR	FP Genetics
71-45 RR	Hyb	120		98	95	99	97	-1	-1	-1	-1	0	0	MR	DEKALB
43E01	Hyb			90			90	-3			-3	-4	-1	MR	Pioneer Hi-Bred
43H57	Hyb		81	84			84	-3			-3	-1	0	MR	Pioneer Hi-Bred
45H26	Hyb	126	101	99	99	98	99	1	1	0	0	1	0	R	Pioneer Hi-Bred
45H28	Hyb			98	102	98	100	2	2	2	2	3	0	R	Pioneer Hi-Bred
D3150	Hyb			95	97	96	96	2	2	1	1	2	0	MR	DuPont
D3151	Hyb			94	96	93	95	1	0	0	0	0	0	MR	DuPont
Café	OP	98	76	83	82		82	-3	-3		-3	-3	0	R	SeCan
Rugby	OP		89	88	89	79	86	1	1	0	1	-1	0	R	SeCan
9553	Hyb			100	98	94	97	1	0	-1	0	1	0	R	Viterra
9554	Hyb			96	100	102	99	1	1	0	1	2	0	MR	Viterra
46P50	Hyb	125	103	95	99	93	96	5	3	3	3	3	0	R	Viterra
LSD (0.05) as % of check yield				11	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 effect of disclosing even more varieties than that offered from just the PCVT system.

In 2008, due to severe drought at both BC sites, high variability resulted in the canola data from all but one of the six trials grown (four of which are used for the PCVT system). For this reason BC data was not included into the PCVT system nor the BC dataset. Thus, the above data is provided to supply readers with information from other short-season canola data sites.

The information below was provided by *Alberta Agriculture and Rural Development* and the *Canola Council of Canada*, Dec 2008.

FIELD PEAS

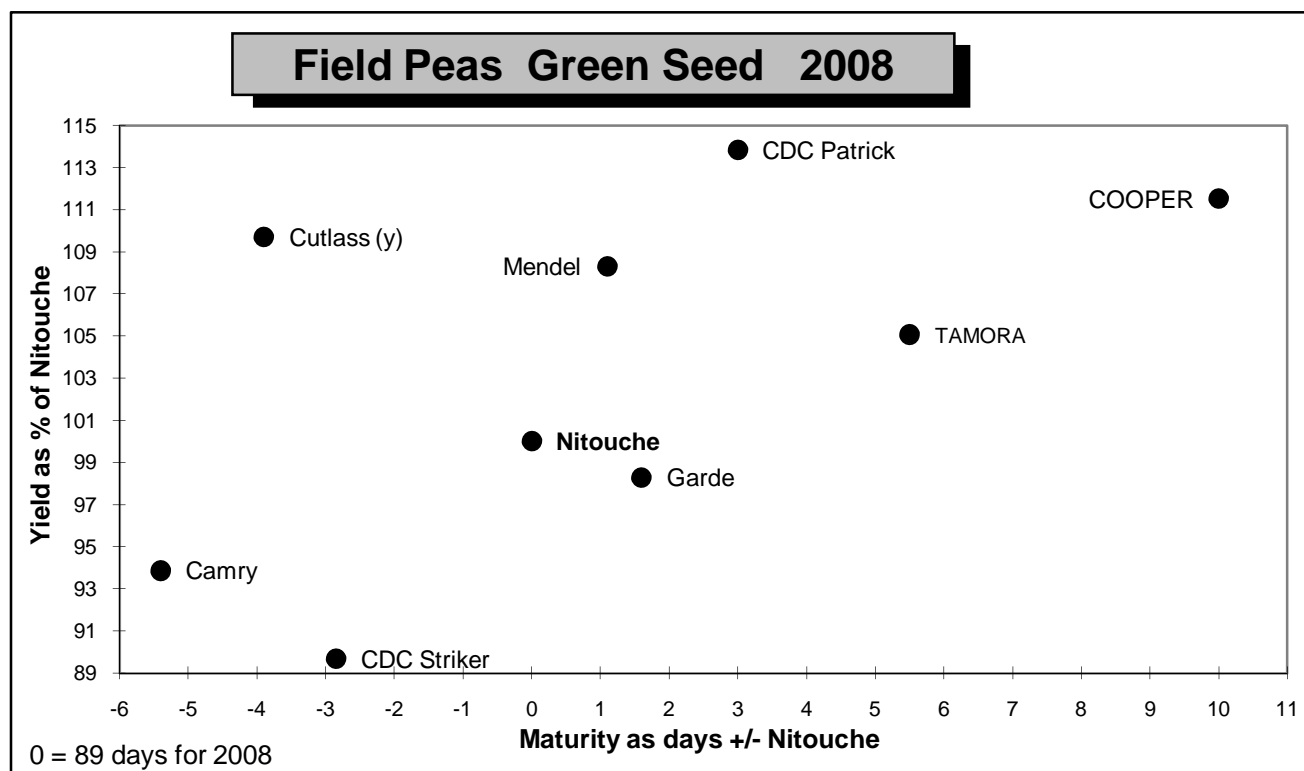
Field Pea (Green Seed)							Yield as % of Nitouche							
Variety	**Designated	Dawson Creek					Fort St. John					B.C. Peace		
	Powdery	2008 Yield		2003-2008			2008 Yield		2003-2008			2008	2003-2008	
	Mildew	bus /	% of	Avg.	Stn.	Yrs.	bus /	% of	Avg.	Stn.	Avg.	Avg.	Stn.	
	Resistant	acre	check	(%)	(%)		Yrs.	acre	check	(%)	(%)	(%)	Yrs.	
Camry	VG	30	b	76	98	[4]	55	abc	112	105	[4]	94	102	[8]
CDC Patrick *	VG	39	ab	101	101	[1]	63	a	127	127	[1]	114	114	[2]
CDC Striker	P	33	ab	84	92	[5]	47	de	96	92	[5]	90	92	[10]
COOPER	VG	42	a	109	111	[4]	56	abc	114	109	[4]	112	110	[8]
Cutlass * (yellow)	VG	38	ab	97	97	[1]	60	ab	122	122	[1]	110	110	[2]
Garde	P ***	40	ab	104	102	[2]	46	e	93	94	[2]	98	98	[4]
Mendel *	XX	39	ab	99	99	[1]	58	ab	117	117	[1]	108	108	[2]
Nitouche	P	39	ab	100	100	[5]	49	cde	100	100	[5]	100	100	[10]
TAMORA	VG	40	ab	102	99	[2]	53	bcd	108	103	[2]	105	101	[4]
LSD (P=.05) =		7.12					5.39							
CV value (%) =		12.93					6.82							

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: SEED MANITOBA 2007; ***BCGPA data)

Nitouche - check variety



Field Pea (Yellow Seed)						Yield as % of Cutlass								
Variety	**Designated	Dawson Creek				Fort St. John				B.C. Peace				
	Powdery	2008 Yield***		2003-2007		2008 Yield		2003-2008		2008	2003-2008			
	Mildew	bus /	% of	Avg.	Stn.	bus /	% of	Avg.	Stn.	Avg.	Avg.	Stn.		
	Resistant	acre	check	(%)	Yrs.	acre	check	(%)	Yrs.	(%)	(%)	Yrs.		
Agassiz	VG			111	[1]	70	a	103	94	[2]	103	100	[3]	
Canstar	VG			89	[1]	67	abc	100	92	[2]	100	91	[3]	
CDC Bronco	VG			107	[4]	66	abc	99	95	[5]	99	100	[9]	
CDC Centennial	VG			105	[1]	68	ab	101	97	[2]	101	99	[3]	
CDC Golden	VG			92	[4]	59	bcd	88	91	[5]	88	92	[9]	
CDC Meadow	VG			99	[2]	64	abc	95	95	[3]	95	97	[5]	
CDC Prosper *						63	abc	94	94	[1]	94	94	[1]	
Cutlass	VG			100	[4]	67	abc	100	100	[5]	100	100	[9]	
Eclipse	VG			101	[4]	59	bcd	88	96	[5]	88	98	[9]	
Hugo *						66	abc	97	97	[1]	97	97	[1]	
Noble	VG			93	[1]	58	bcd	86	93	[2]	86	93	[3]	
Polstead	VG			117	[1]	67	abc	99	99	[2]	99	105	[3]	
Reward	VG			107	[1]	64	abc	95	92	[2]	95	97	[3]	
SW Carousel	VG			99	[3]	53	d	79	94	[4]	79	96	[7]	
SW CIRCUS	P			87	[4]	58	cd	85	90	[5]	85	89	[9]	
SW MIDAS	VG			96	[3]	62	a-d	92	95	[4]	92	95	[7]	
Thunderbird	VG			109	[1]	60	bcd	89	92	[2]	89	98	[3]	
LSD (P=.05) =						5.60								
CV value (%) =						6.28								

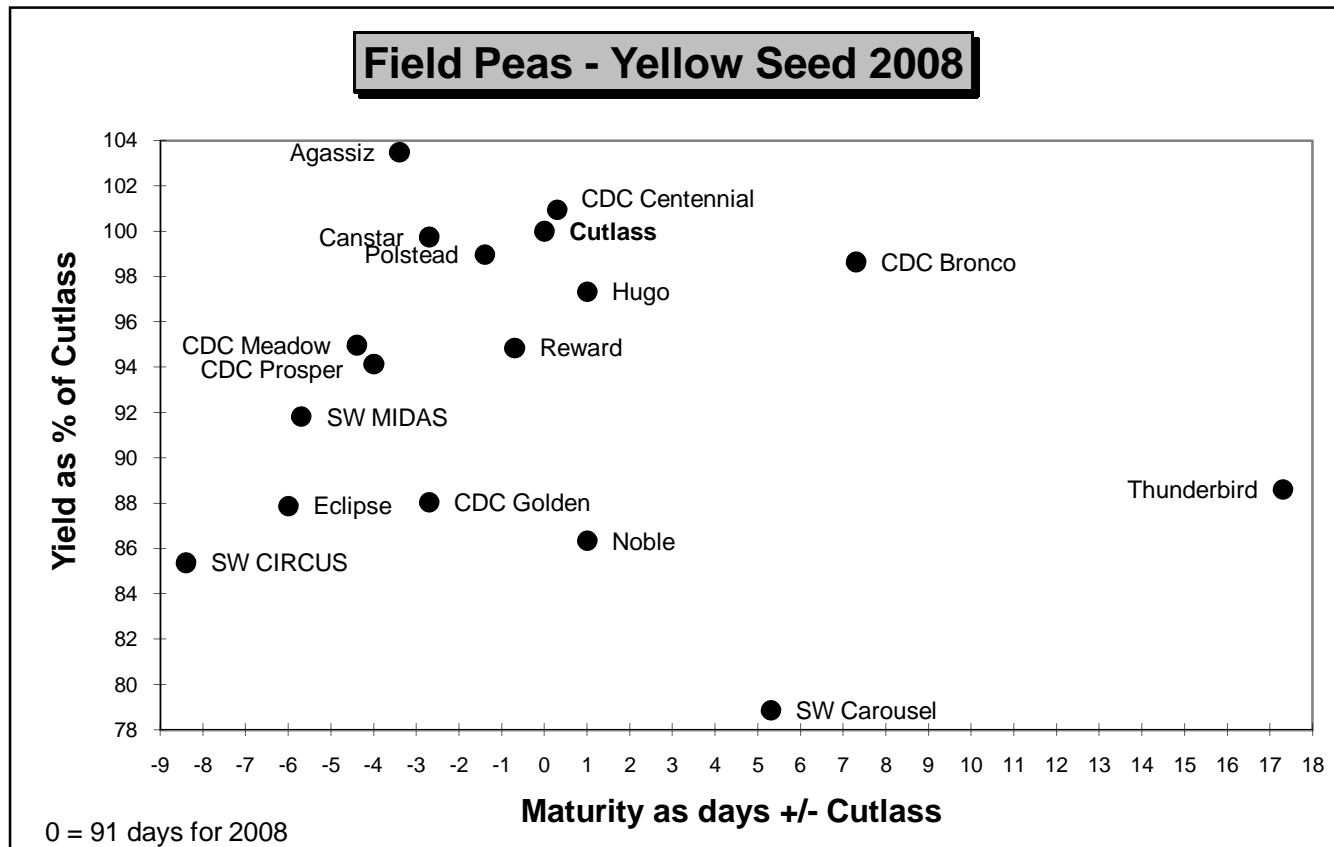
Means followed by the same letter do not significantly differ (P=.05, LSD)

* first year tested, very limited data available.

**Powdery Mildew resistance: VG=Very Good, F=Fair, P=Poor (data: SEED MANITOBA 2007)

***No data for Dawson Creek due to drought conditions

Cutlass - check variety



Note: Above graph depicts data from FSJ only as the DC data was too variable to use, due to severe drought.

Field Peas

BC Peace Averages 2003-2008

Variety	Maturity as days +/- check	Vine Length cm	Lodging 0-9**	1000 k grams	Powdery Mildew 0-9 scale**	Distributor
Yellow Seed						
■ Agassiz	-2	63	2	244		Canterra
■ Canstar	-2	62	3	263		Can Seed Canada
CDC Bronco	4	61	3	246	0	Sask Pulse Growers
CDC Centennial	1	48	5	276		Sask Pulse Growers
CDC Golden	-4	66	2	239	0	Sask Pulse Growers
CDC Meadow	-4	70	1	223		Sask Pulse Growers
CDC Prosper *	-4	50	1	162		Sask Pulse Growers
Cutlass	0	66	3	254	0	Sask Pulse Growers
■ Eclipse	-1	60	2	266	0	FarmPure Seeds
■ Hugo *	1	37	2	240		FarmPure Seeds
■ Noble	3	68	2	256		FarmPure Seeds
■ Polstead	1	52	3	278		FarmPure Seeds
■ Reward	1	69	2	259		SeCan
■ SW Carousel	-1	64	2	270	2	FarmPure Seeds
■ SW CIRCUS	-9	64	2	248	5	SeCan
■ SW MIDAS	-4	58	1	229	0	FarmPure Seeds
■ Thunderbird	14	67	1	237		Canterra
Green Seed						
■ Camry	1	53	1	270	0	FarmPure Seeds
CDC Patrick *	3	59	1	180	0	Sask Pulse Growers
CDC Striker	-1	71	1	242	6	Sask Pulse Growers
■ COOPER	10	72	1	309	0	Canterra
Cutlass * (y)	-4	43	2	229	0	Sask Pulse Growers
■ Garde	1	65	1	217	8	Bob Park, Lacombe
■ Mendel *	1	70	1	234	0	FarmPure Seeds
■ Nitouche	0	76	2	275	6	FarmPure Seeds
■ TAMORA	7	66	2	279	1	FarmPure Seeds

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.

Average maturity for **Cutlass** is 102 days, & 100 days for **Nitouche**.

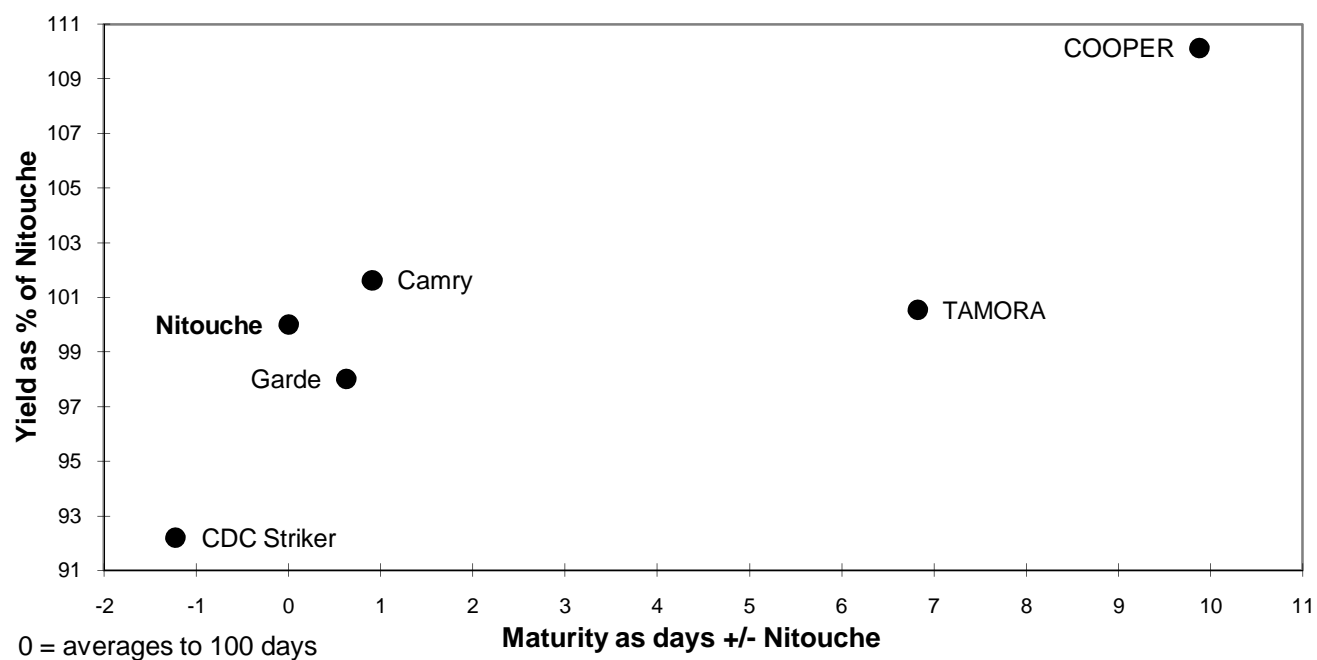
■ Protected by Plant Breeders' Rights

(g) = green pea; (y) = yellow pea

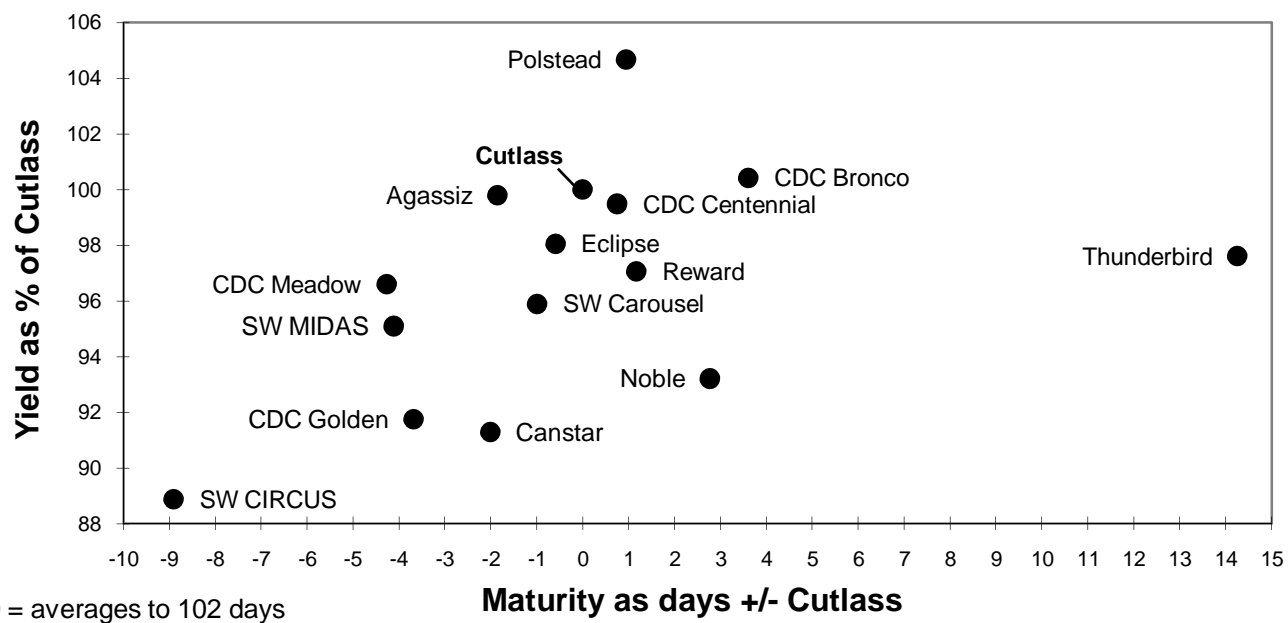
* first year tested, very limited data available

** 0 - 9 scale; 0 = none, 9 = 100% affected

Field Peas Green Seed 2003 - 2008



Field Peas Yellow Seed 2003 - 2008



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 deliver a more consistent and earlier maturation of the seed.

Flax		Yield as % of NorLin														
Variety	Dawson Creek					Fort St. John				B.C. Peace			Variety Descriptions			
	2008 Yield		2003-2008			2008 Yield		2003-2008		2008	2003-2008		Maturity Height			
	bus / acre	% of Check	Avg. (%)	stn yrs		bus / acre	% of Check	Avg. (%)	stn yrs	Avg. (%)	Avg. (%)	stn yrs	days +/- check	(cm)	Distributor	
■ CDC Bethune	14	a	92	101	[4]	12	a	98	84	[4]	95	93	[8]	6	57	SeCan
CDC Normandy	16	a	100	101	[4]	12	a	103	103	[4]	102	102	[8]	1	55	SeCan
■ CDC Sorrel	15	a	98	102	[3]	13	a	106	91	[3]	102	96	[6]	7	57	SeCan
Flanders	14	a	86	98	[3]	12	a	96	93	[3]	91	96	[6]	9	51	SeCan
■ Hanley	13	a	84	91	[3]	13	a	108	86	[3]	96	89	[6]	7	53	SeCan
NorLin	16	a	100	100	[4]	12	a	100	100	[4]	100	100	[8]	0	56	SeCan
■ Prairie Grande	14	a	86	100	[2]	14	a	114	103	[2]	100	102	[4]	-1	42	SeCan
■ Prairie Thunder	14	a	92	106	[2]	14	a	113	109	[2]	102	107	[4]	-1	45	Canterra
LSD (P=.05) =		2.69						2.58								
CV value (%) =		12.61						13.93								
Average maturity for NorLin is 120 days.																

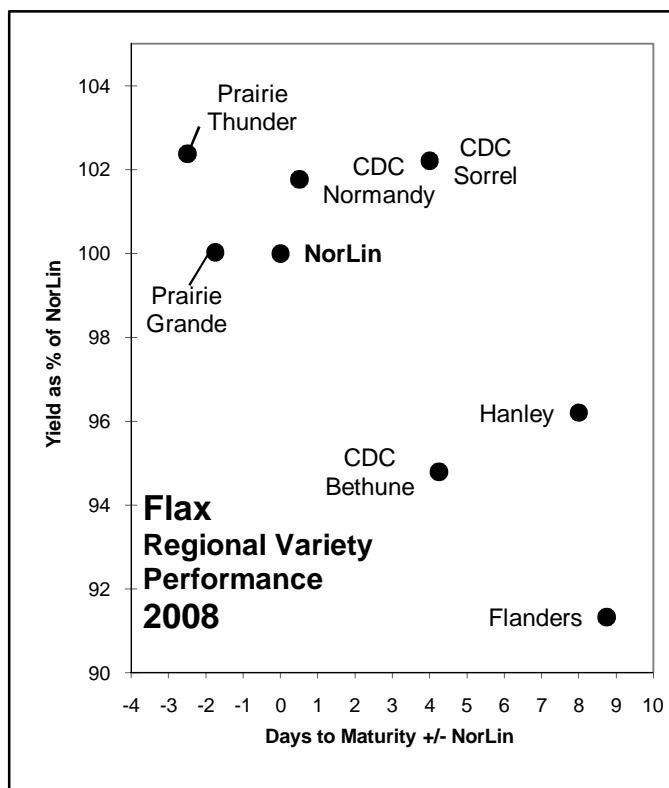
Means followed by the same letter do not significantly differ (P=.05, LSD)

NorLin - check variety

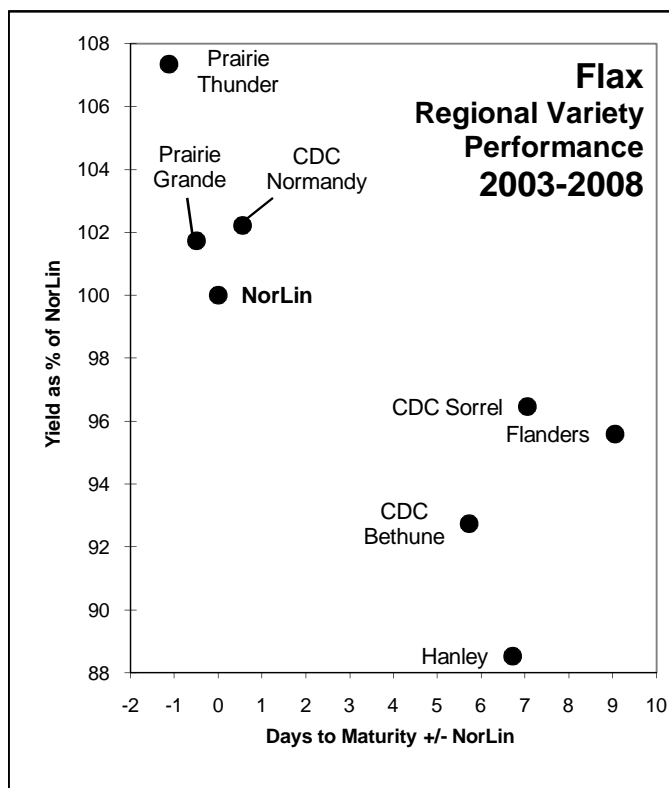
Note: No data included from 2004 & 2006 due to adverse harvest, drought, geese & deer damage.

■ Protected by Plant Breeders' Rights

* first year tested, very limited data available



2008 maturity for **NorLin** is 101 days.



Average maturity for **NorLin** is 120 days.

Summary of 2008 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	16	4	64	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Oats	DC	14	4	56	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CWRS Wheat (HRSW)	DC	26	4	104	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CPS / CWES Wheat	DC	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Triticale	DC	5	4	20	Gayah Sieusahai - ARECA - Edmonton, AB *
Prairie-Wide Napus Canola #1	DC	17	4	68	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #2	DC	17	4	68	Raymond Gadoua - Canola Council of Can.
BCGPA Napus Comparison	DC	17	4	68	BCGPA Research Department **
Regional Flax	DC	8	4	32	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Green Field Pea	DC	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Yellow Field Pea	DC	19	4	76	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional 2 Row Barley	FSJ	21	4	84	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional 6 Row Barley	FSJ	16	4	64	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Oats	FSJ	14	4	56	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CWRS Wheat (HRSW)	FSJ	26	4	104	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional CPS / CWES Wheat	FSJ	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Triticale	FSJ	5	4	20	Gayah Sieusahai - ARECA - Edmonton, AB *
Prairie-Wide Napus Canola #1	FSJ	17	4	68	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #2	FSJ	17	4	68	Raymond Gadoua - Canola Council of Can.
BCGPA Napus Comparison	FSJ	17	4	68	BCGPA Research Department **
Regional Flax	FSJ	8	4	32	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Green Field Pea	FSJ	9	4	36	Gayah Sieusahai - ARECA - Edmonton, AB *
Regional Yellow Field Pea	FSJ	19	4	76	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 Preliminary 08R501	DC	13	4	52	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
Ag Canada - Rapa Preliminary 08R502	DC	17	4	68	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
Ag Canada - Rapa Private Co-op 08R503	DC	8	4	32	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
Ag Canada - Rapa Preliminary 08R501	FSJ	13	4	52	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
Ag Canada - Rapa Preliminary 08R502	FSJ	17	4	68	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
Ag Canada - Rapa Private Co-op 08R503	FSJ	8	4	32	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
WCCRCC - Rapa Public Co-op - RS1	DC	7	4	28	Raymond Gadoua - Canola Council
Biodiesel Feedstock Camelina (Falk)	DC	17	4	68	Dr. Kevin Falk, Ag Canada - Saskatoon, SK
B-Y51 Barley Grain Pre-Co-op (Pat)	DC	25	3	75	Dr. Joseph M Nyachiro / Dr. Patricia Juskiw
B-S51 Barley Silage Pre-Co-op (Pat)	DC	25	3	75	AAFCDC Lacombe
Barley 2-Row Western Co-op	DC	35	3	105	Dr. Bryan Harvey - U of S Malt Barley Program
Barley 6-row Western Co-op	DC	25	3	75	Dr. Mario Therrien - AAFC Brandon
BCGPA Ag Canada Flax Prelim-Early (Duguid)	DC	25	3	75	Dr. Scott Duguid - MRC Morden
Brown's Organic Surface Applied Fertilizer	FSJ	3	12	36	D. Brown
Canola Council of Canada Napus NS1 Co-op	DC	26	4	104	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS2 Co-op	DC	25	4	100	Raymond Gadoua - Canola Council of Can.
Chia Seed Demo	FSJ	3	3	9	BCGPA
Cereal Rust plots (individual plots)	DC	1	1	1	Dr. Tom Fetch - Ag Canada, Winnipeg
Early Flax CFET A	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax Prelim A	DC	30	3	90	Dr. Scott Duguid - MRC Morden
Early Wheat CBW-A2 (3m plots)	DC	42	2	84	Dr. Gavin Humphreys / Dr. Steven Fox
Early Wheat Parkland 'A1' (3m plots)	DC	100	2	200	- AAFC Winnipeg
Early Wheat Parkland 'A2' (3m plots)	DC	42	2	84	

...Varietal Development table continued next page

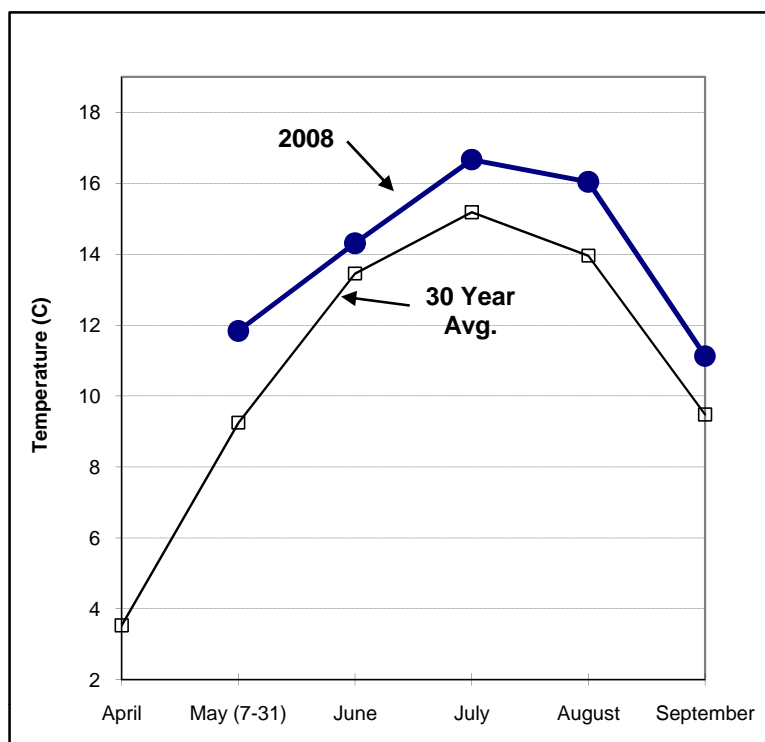
Varietal Development continued ...	Site	Varieties	Replicates	Plots	Source
Early Wheat PRF8 (3m plots)	DC	108	1	108	Dr. Gavin Humphreys / Dr. Steven Fox - AAFC Winnipeg
Early Wheat PRF8F (3m plots)	DC	100	1	100	
Early Wheat PRDHYT (3m plots)	DC	160	1	160	
Ethanol Feedstocks-A Public (12entries)	DC	12	4	48	Shannon Chant - Sask Ag & Food - Sask.
Ethanol Feedstocks-B Private (BCGPA)	DC	28	4	112	BCGPA/Humphreys/Brown/Fox/Depauw
Ethanol Feedstocks-A Public (12entries)	FSJ	12	4	48	Shannon Chant - Sask Ag & Food - Sask.
Ethanol Feedstocks-B Private (BCGPA)	FSJ	28	4	112	BCGPA/Humphreys/Brown/Fox/Depauw
Frontier Seeds - CWRS wheat	DC	4	3	12	Conrad - Frontier Seeds - Vancouver, BC
Field Pea Co-op "A"	FSJ	24	3	72	Dr. Dengjin Bing - AAFC Lacombe
Field Pea Co-op "B"	FSJ	24	3	72	Dr. Dengjin Bing - AAFC Lacombe
Hard White Spring Wheat Co-op	DC	30	3	90	Dr. Ron DePauw - AAFC Saskatoon
Hard White Spring Wheat Co-op	FSJ	30	3	90	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
Oat - Lacombe Project - Prelim C	DC	100	1	100	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 (PYT07) Trial	FSJ	36	2	72	Dr. Dengjin Bing - AAFC Lacombe
Peace Region Field Pea (PYT08) Trial	FSJ	36	2	72	Dr. Dengjin Bing - AAFC Lacombe
Parkland 'C' Wheat Co-op	DC	30	3	90	Alanna Olson - AAFC Beaverlodge
Parkland 'C' Wheat Co-op	FSJ	30	3	90	Alanna Olson - AAFC Beaverlodge
PRFSA - forage seed plots (S. Burton)	FSJ	21	4	84	Sandra Burton - PRFSA
Early RR Soybean Demo	DC	6	4	24	BCGPA
Early RR Soybean Demo	FSJ	6	4	24	BCGPA
T-Y51Triticale Grain Pre-Co-op	DC	21	3	63	Dr. Don Salmon - AAF Lacombe, AB
T-Y52 Triticale Grain Pre-Co-op	FSJ	21	3	63	Dr. Don Salmon - AAF Lacombe, AB
T-S51Triticale Silage	DC	21	3	63	Dr. Don Salmon - AAF Lacombe, AB
Viterra Napus Herbicide Systems Trial	DC	20	3	60	Tim Ferguson - Viterra (Calgary office)
VITERRA/PROVEN Wheat Marketing	DC	23	3	69	Jim Anderson - Agricore United (Calgary)
VITERRA/PROVEN Oat Performance	DC	12	3	36	Jim Anderson - Agricore United (Calgary)
WESTCO - N prod's top-dressed	DC	8	4	32	Rigas Karamanos - WESTCO
WESTCO - N prod's top-dressed	FSJ	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 2008



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April		3.5
May (7-31)	11.8	9.2
June	14.3	13.5
July	16.7	15.2
August	16.0	14.0
September	11.1	9.5

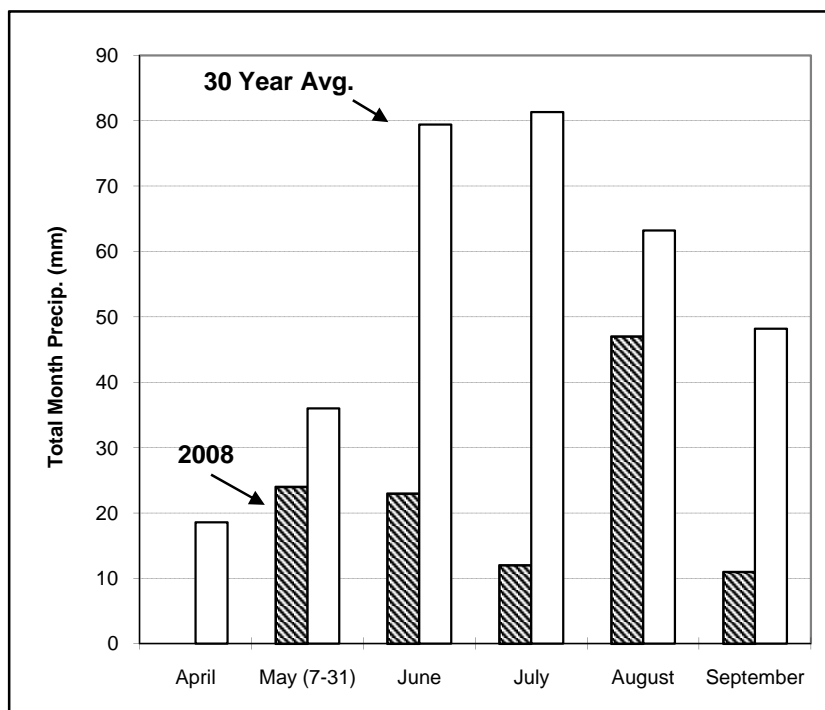
Frost Events: -2.3 May 11 -1.0 June 9
 -1.2 May 26 **-4.7 Sept 24**
 (No data available from April - May 6, 2008)
Killing Frost (-2.2 C) Frost-Free Period: 136
 May 11 - September 24

Accumulated Growing Degree Days:
2008: 1256
 1994-2008 Average: 1190

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

PRECIPITATION

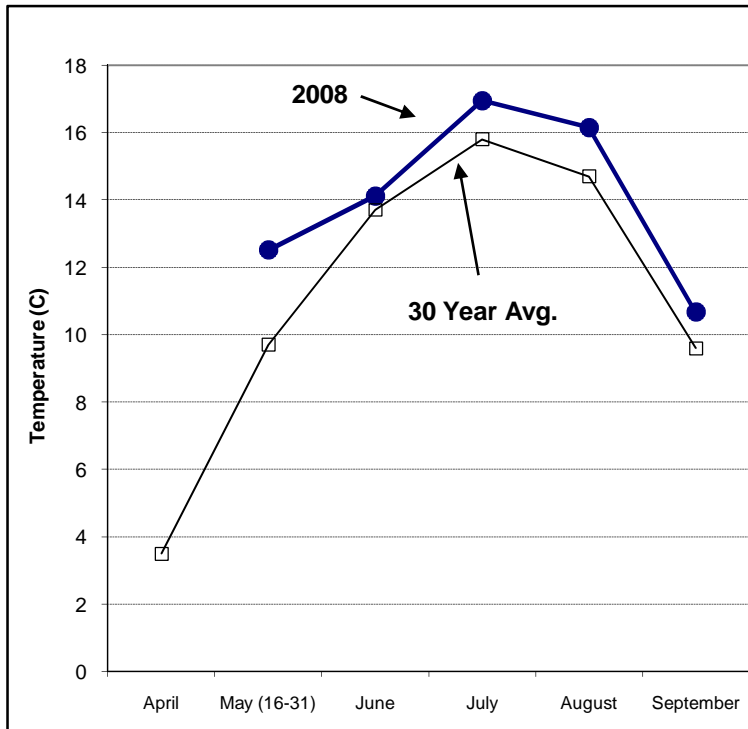
Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
April		19
May (7-31)	24	36
June	23	79
July	12	81
August	47	63
September	11	48



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

Production
INSURANCE
for British Columbia

Fort St. John Weather Information 2008



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April		3.5
May (16-31)	12.5	9.7
June	14.1	13.7
July	16.9	15.8
August	16.1	14.7
September	10.7	9.6

Frost Events: -9.7 April 25 -6.4 September 25
 -1.3 May 2

Killing Frost (-2.2 C) Frost-Free Period: 153
 April 25 - September 25

Accumulated Growing Degree Days:

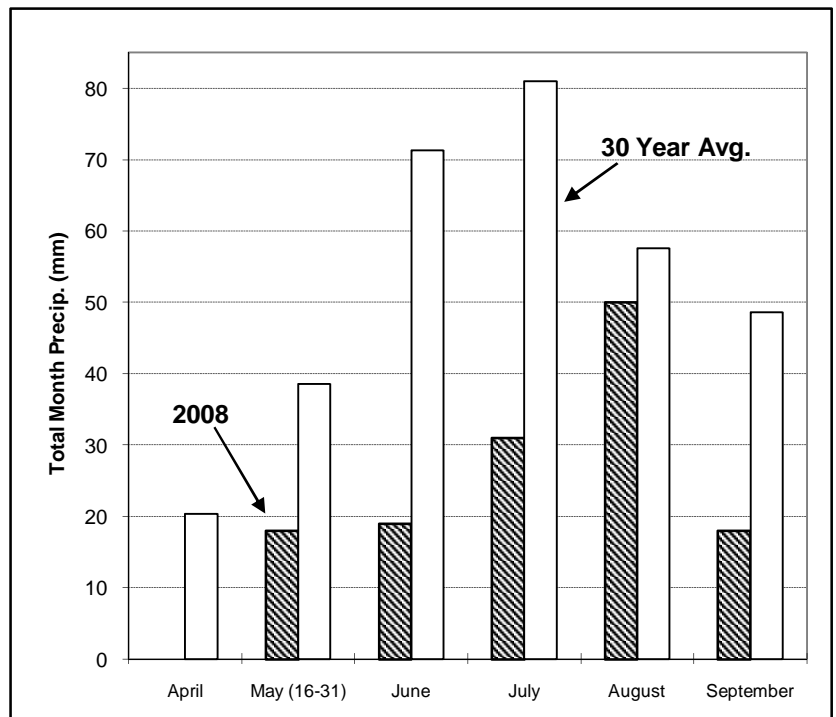
2008: 1199
 1994-2008 Average: 1171

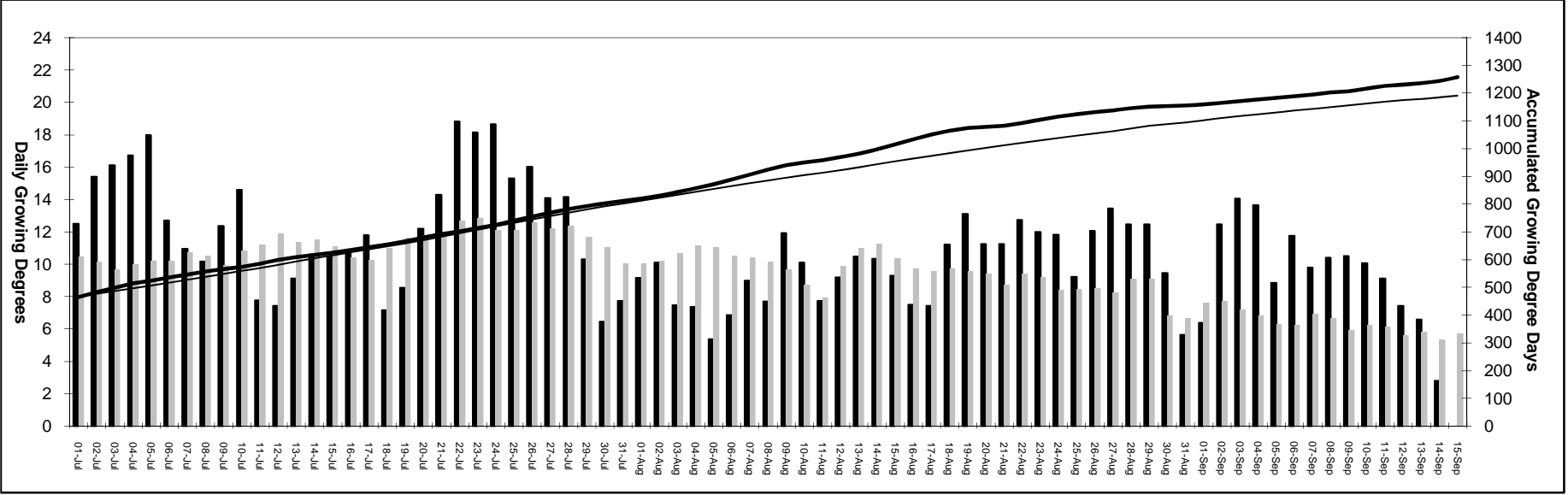
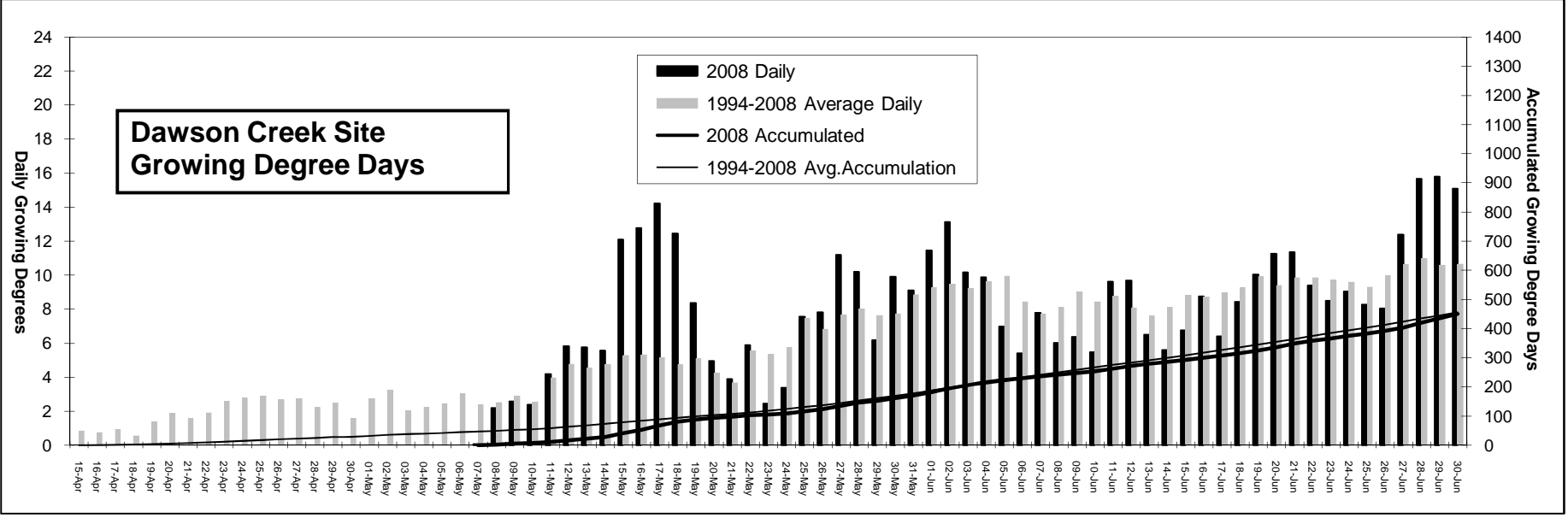
* 30 year average FSJ from 1968-1997
 source: Environment CANADA

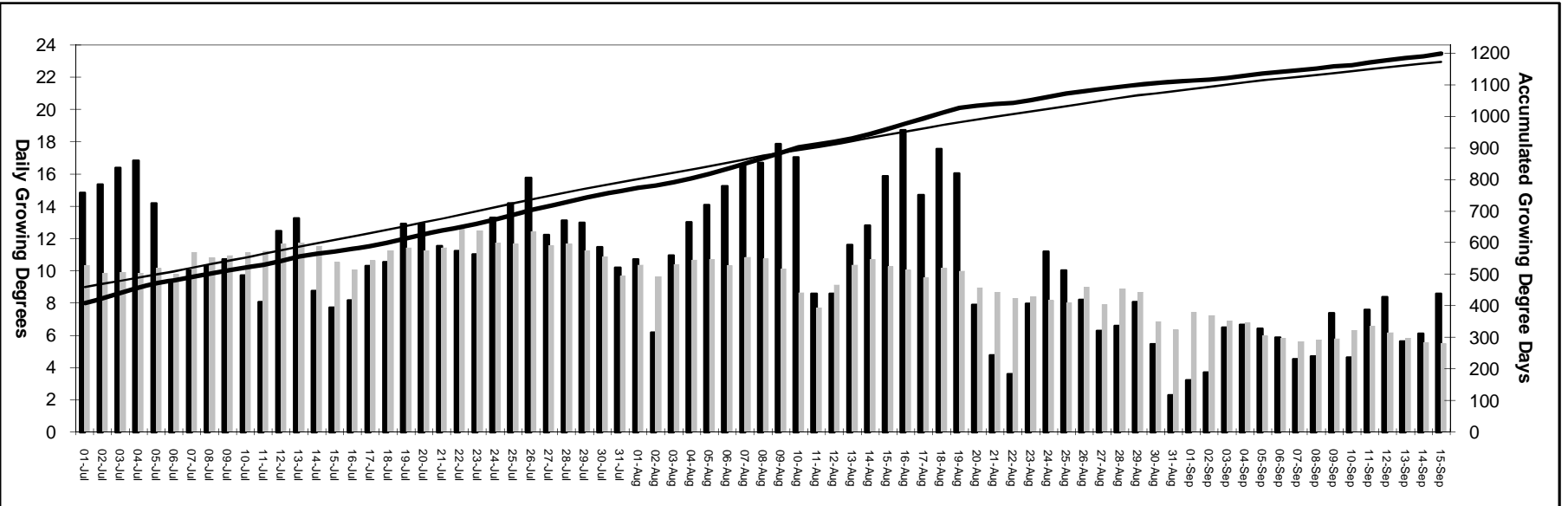
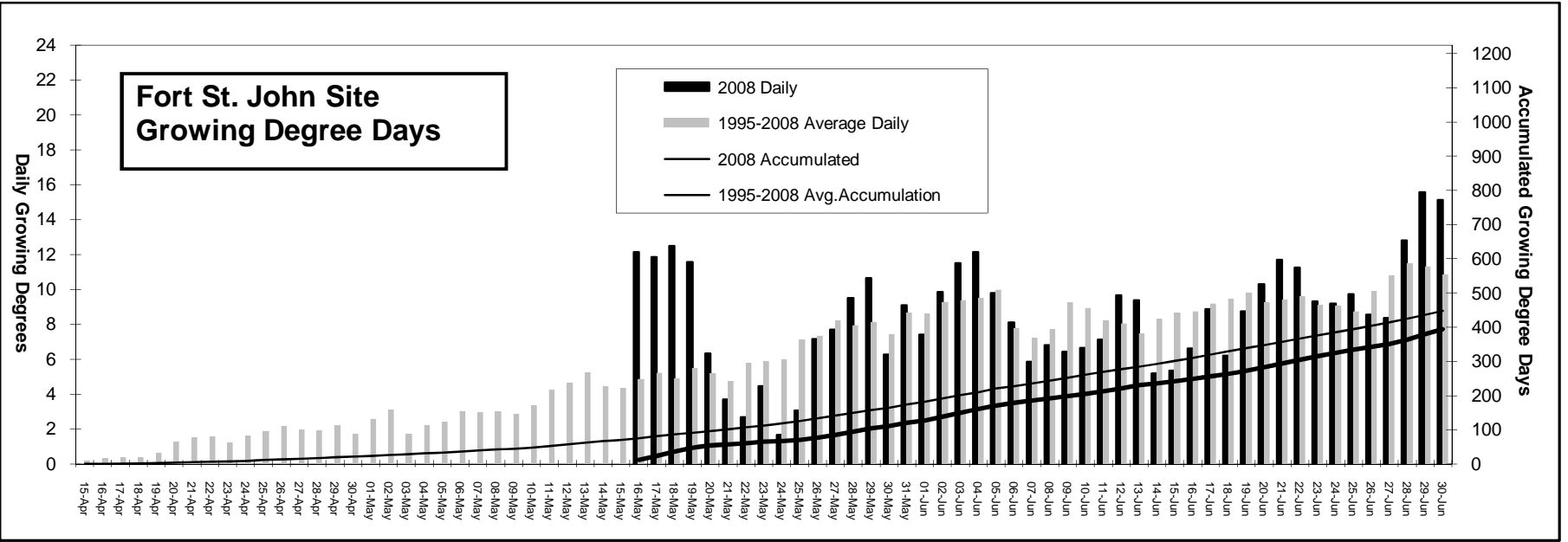
PRECIPITATION

Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
April		20
May (16-31)	18	39
June	19	71
July	31	81
August	50	58
September	18	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.







List of Certified Seed Distributors

AgriPro

Syngenta Seeds Canada
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Morden, Manitoba
Tel: (204) 822-5412
www.agriprowheat.com

Agriprogress Inc.

Box 2499 Morden, MB R6M 1C2
Tel: 204-331-3611
Fax: 204-325-8052

Bayer CropScience Canada Co.

#100, 3131-114 Ave. SE Calgary AB T2Z3X2
Tel: (888) 283-6847 (toll-free help desk)
www.bayercropscience.ca

Bonis & Company Ltd.

P.O. Box 217 Lindsay, ON K9V 5Z4
Tel: (705) 324-0544

Brett - Young Seeds Ltd.

Box 99, St. Norbert Postal Station,
Winnipeg, MB R3V 1L5
Tel: 1-800-665-5015
www.byseeds.com

Canseed Ltd.

R.R. #1, Box 1155 Stettler, AB T0C 2L0
Tel: 403-742-4091
Fax: 403-742-0621

Canterra Seeds Ltd.

201-1475 Chevier Blvd.
Winnipeg, MB R3T 1Y7
Tel: (204) 992-2727
1-877-439-7333 (toll-free)
www.canterra.com

Cargill

www.cargill.com

Columbia Seed Company Limited

Box 808 Grassy Lake, AB T0K 0Z0
Tel: (403) 654-2158
www.klempnauer.ab.ca

Dekalb Canada Seeds (Monsanto)

67 Scurfield Blvd. Winnipeg, MB R3Y 1G4
Tel: (800) 667-4944
www.dekalb.com

DSV Canada Inc.

Box 99 St. Norbert Postal Station
Winnipeg, MB R3V 1L5
Tel: (204) 261-7932

FarmPure Seeds

422 McDonald St. Regina SK S4N 6E1
Tel: (877) 791-0500
www.farmpure.com

Haney Farms Ltd.

Box 280 Picture Butte, Alberta T0K 1V0
Toll Free: (877) 738-4517
Phone: (403) 738-4517
[Email: office@haneyfarms.com](mailto:office@haneyfarms.com)

Monsanto Canada

PO Box 181, Rycroft, AB T0H 3A0
Tel: (780) 518-3963 Nick Sekulic
Tel: (800) 667-4944 (info line)
www.monsanto.ca

Pioneer Hybrid

Box 730 Country Rd 264
Chatham, ON N7M 5L1
Tel: (250) 782-4800 or (800) 265-9435
www.pioneer.com/canada

Prairie Seeds Ltd.

RR#4, Corner of Hwy 60 & Hwy 39
Calmar, AB T0C 0V0
Tel: (780) 985-7305 or (800) 369-5503
www.prairiebrandseed.com

Progressive Seeds Ltd.

4819C-48 Ave Red Deer, AB T4N 3T2
Tel: (403) 347-4925
www.progressiveseeds.ca

SeCan Association

201-52 Antares Dr. Ottawa ON K2E 7Z1
Tel: (613) 225-6891 or (800) 764-5487
www.secan.com

Seed-Link Inc.

Box 217 Lindsay, ON K9V 5Z4
Tel: (705) 324-0544
www.seed-link.ca

S.S. Johnson Seeds Ltd.

Box 3000 Arborg, MB R0C 0A0
Tel: (204) 376-5228
Toll-free: 1-800-363-9442
www.johnsonseeds.com

Syngenta

15910 Medway Rd. RR 1
Arva, ON N0M 1C0
Tel: 1-800-665-9250
www.syngenta.com

University of Alberta

114 St 89 Ave. Edmonton, AB T6G 2M7
Tel: (403) 492-3239
www.afns.ualberta.ca

Viterra / Proven Seeds

Dawson Creek Tel: (250) 782-9264
Fort St. John Tel: (250) 785-3445
Proven Seeds Tel: (800) 565-7333
www.viterra.ca