



**B.C. GRAIN  
PRODUCERS  
ASSOCIATION**

# **2004 FIELD CROP VARIETY PERFORMANCE**



**B.C. PEACE RIVER REGION**

Funded in part by ...



**PEACE RIVER AGRICULTURE  
DEVELOPMENT FUND**



**Investment  
Agriculture  
Foundation**  
*of British Columbia*

# BC Grain Producers Association

## 2004 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 BC*  
*BC Peace River Grain Industry Development Council*  
*Peace River Agricultural Development Fund*

*AGRICORE UNITED* and *LOUIS DREYFUS* should also be recognized for their contribution via kernel protein analysis, *PEACE TRACTOR* for their help with our machinery needs, as well as other help offered from the local *BC Ministry of Agriculture, Food and Fisheries*. We should all thank these organizations for their financial support and/or input in making our field-testing and the production of this book possible. A special thanks is also extended to the cooperators who have generously given their support to the variety and agronomic testing program. The cooperators in 2004 were once again *Dennis Meier* of *Dawson Creek*, and *Cameron Fines* of *Fort St. John* as well a brand new relationship with *School District 59* to use the land locally known as the *Hudson School Farm*.

Further thanks goes out to the field and lab team who helped make this another successful year. They are Research Assistant *Janice Dagasso*, and Field Technicians *David Stone*, *Keela Knutson* and *Tim Moser*. Final thanks goes once again to *Colleen Giesbrecht* for all her help in the preparation of this report.

This document reports all registered materials grown during the 2004-growing season from regional trials placed at both the Dawson Creek and Fort St. John research farms. Historical data is included wherever available. However, where results are derived only from 2004 data readers of this report **must interpret and use such one-year data with considerable caution**, particularly when viewing the scatter-point graphs on yield and maturity. The variety names of such data are displayed in *italics* and are *asterisked* for attention. A variety more often than not changes position on the graph after additional results are obtained simply as the result of variable weather patterns averaged over time. The more station years used to produce an average, the more stable and reliable the result.

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.

#### For More Information Contact:

**Clair F. Langlois** Research Manager  
 BC Grain Producers Association  
 400 - 116<sup>th</sup> Avenue, Dawson Creek, BC V1G-3E2  
 Tel: (250) 782-2557 FAX: (250) 784-2299

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

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

#### Table of Contents

Interpreting Data	page 4	Triticale & SWSW	page 20
Site Information	page 5	Polish Canola	page 21
CWRS Wheat	page 7	Argentine Canola	page 23
CPS / CWES Wheat	page 10	Field Peas	page 29
Six Row Barley	page 12	Flax	page 32
Two Row Barley	page 13	Summary of Trials	page 34
Hulless Barley	page 13	Weather Information	page 36
Oats	page 17	Seed Distributors	page 41

## 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 be six station years. 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 3 years.

### Interpreting Yield Results

Crops in this book are managed using the same level of inputs as field sized recommendations would suggest. Yields here are the result of *small plot production*, and the same *level* of production is unlikely to be achieved on a large-scale basis. In contrast to research plots where consistency can be better controlled, wet areas and variable soil fertility affect field scale crop production. As well, 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 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.** Unfortunately statistics, which are vital, cannot be used on "*percent of check variety*". Thus, we elected to show *bushels per acre* wherever possible for the sole purpose of displaying statistical results. 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.

### Plant Breeders Rights

The Plant Breeders' Rights (PBR) gives plant breeders' "copyright" protection of a new 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. Sale of the crop, as seed for planting purposes is not allowed. Many new transgenic herbicide tolerant varieties have additional restrictions through '*technical use agreements*'. 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 as square boxes. Ultimately, it is the responsibility of the grower to know which line is PBR.

### Certified Seed

The cost of *certified seed* is a small additional expense in relation to total crop production input costs, especially when changing to a different variety. Certified seed assures genetic purity, high germination rates and low percentage of other crop and weed seeds when compared to common seed. Certified seed can be purchased in bulk from authorized establishments (see page 41).

### Seed Treatment

Choosing disease-resistant varieties and using certified, plump, treated seed goes a long way in the fight against plant disease. The cost of a fungicide or a combined fungicide/insecticide seed treatment is a small price to pay for the amount of protection they can provide. 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*.
- ◆ 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.

### 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. Granular formulations placed with the seed, have had good results in Peace soils. *Rhizobiums* are living organisms so check expiry date on the package and follow inoculant label directions carefully. High soil nitrogen levels (over 60 kg N/ha) will reduce nodulation in the field. 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 was used on all pea trials seen here.

### Seeding Rates

While the following *range* of seeding rates has given equal yields for each crop in trials, experience has shown that the top end of the range provides 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 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.

**BC Grain Producers Association  
- 2004 Growing Conditions -**

<b>Suggested Rates of Seeding</b>		
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

Spring in 2004 came very early, but quickly reverted back to a cool damp spring by the beginning of May. Planting of the research plots was purposely delayed until early May due to the risk of frost. Both the Fort St. John site and the Dawson Creek site suffered a bit of a drought in May after planting, however rains soon returned to the Fort St. John site in June and continued throughout the summer in a timely matter. The result was very good crops at the northern site, with yields well above normal. However, the south Peace site did not see any significant moisture until the first week of July post-plant, and the results there were as expected, poorer than average yields and grain quality. This is now the second year in a row such a spread in available soil moisture has occurred between the north and south research sites.

Due to large differences in seed size with a crop like peas, seeding rates can vary considerably. A preferred way of dealing with seeding rate is to base it 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.

The year finished at both sites with a damp fall and three heavy snowfalls, the first as early as about September 5<sup>th</sup>. Needless to say harvest was impeded and flattened crops were slow to finish and difficult to combine. Despite this hardship, only the flax variety performance trials did not make it off the fields before winter, and all performance tests produced good vital statistics (thus reliable data).

Crop	Type	Seeds / sq.ft	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

As in 2003, the majority of crops at the South Peace farm still managed to produce decent yields, however early pea varieties took a big hit due the drought in the south since they completed their entire lifecycle while under drought. Wheat yields were lower than average too. Canola at the same site also suffered lower than normal yields, but considering before the first July rains hit their lower leaves (thus biggest and most important at the time) actually had died and the rest of the plant was badly wilted, the canola actually made a major comeback at the southern site by harvest.

**Example**

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 grow into healthy plants.

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

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

To summarize, like 2003 (almost verbatim), 2004 allowed for acceptable crop potentials at the South Peace research farm, and exceptional crop potentials at the North Peace research farm. Although both sites were hard hit by adverse harvest weather, in the end both sites still managed to produce reliable data.

Refer to the back of this report for a total weather report via graphs (pages 36-42).

## 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		
		2001 Yield	1993-2001 Avg.	Stn.Yrs.	2001 Yield	1993-2001 Avg.	Stn.Yrs.	2001 Yield	1993-2001 Avg.	Stn.Yrs.
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		Stn.Yrs.
	2001 Yield	1993-2001 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.

**For any varieties with less than three station years of data, you must compare data with caution.**

## Fertilizer Rates Used In 2004

Fort St. John, B.C.		Legal Description: SW19 Tp84 R18 W6							
Crop	Fertilizer Applied			Placement	lbs actual/ac Recom. vs. Applied	Enviro-Test Labs			
	kg/ha					N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	S
<b>Canola</b>	20-0-0-24	58		banded	Recommended* =	0	30	15	20
	6-26-30	55		banded	Actually applied =	17	27	15	12
	12-52-0	30		in-furrow					
<b>Flax</b>	20-10-10-5	123		banded	Recommended* =	0	25	15	5
	34-0-0	97.5		banded	Actually applied =	55	25	11	6
	12-52-0	30		in-furrow					
<b>Wheat &amp; Barley</b>	20-10-10-5	151		banded	Recommended* =	60	25	15	10
	34-0-0	77.5		banded	Actually applied =	54	27	14	7
	12-52-0	30		in-furrow					
<b>Oats</b>	20-10-10-5	151		banded	Actually applied =	40	27	14	7
	34-0-0	20.5		banded					
	12-52-0	30		in-furrow					
<b>Peas</b>	20-0-0-24	38		banded	Recommended* =	0	25	15	10
	6-26-30	50		banded	Actually applied =	13	26	13	8
	12-52-0	30		in-furrow					

Dawson Creek, B.C.		Legal Description: NE18 Tp78 R14 W6							
Crop	Fertilizer Applied			Placement	lbs actual/ac Recom. vs. Applied	Enviro-Test Labs			
	kg/ha					N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	S
<b>Canola</b> Grown at Hudson School Site SW20, Tp78, R14, W6	27-0-0-12	214		banded	Recommended* =	80	20	15	20
	6-26-30	50		banded	Actually applied =	57	26	13	23
	12-52-0	30		in-furrow					
<b>Flax</b>	20-10-10-5	123		banded	Recommended* =	0	25	15	5
	34-0-0	0		banded	Actually applied =	25	25	11	6
	12-52-0	30		in-furrow					
<b>Wheat &amp; Barley</b>	20-0-0-24	67.5		banded	Recommended* =	0	20	20	17
	0-0-62	38		banded	Actually applied =	15	14	21	15
	12-52-0	30		in-furrow					
<b>Oats</b>	20-0-0-24	38		banded	Actually applied =	10	14	21	8
	0-0-62	38		banded					
	12-52-0	30		in-furrow					
<b>Peas</b>	20-0-0-24	38		banded	Recommended* =	0	30	50	10
	6-26-30	100			Actually applied =	15	37	27	8
	12-52-0	30		in-furrow					

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

## Herbicide Applications

Fort St. John, B.C.      Legal Description:      SW19 Tp84 R18 W6			
Crop	Date Applied	Product Used	Product Rate
Canola	15-Jun-04	Muster (ethametsulfuron methyl)	12 g/ac
		Poast Ultra (sethoxydim)	190 ml/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		AgSurf	0.2% v/v
Flax	15-Jun-04	Poast Ultra (sethoxydim) + Merge	190+400ml/ac
	24-Jun-04	Buctril M (bromoxynil + MCPA)	400 ml/ac
Wheat, Barley, Triticale, Oats	17-Jun-04	Refine Extra (tribenuron methyl)	8 g/ac
		Curtail M (clopyralid + MCPA ester)	800 ml/ac
		AgSurf	0.2% v/v
Peas	3-Jun-04	Sencor (metribuzin) 75%DF	77 g/ac
		MCPA Sodium	190 ml/ac

Dawson Creek, B.C.      Legal Description:      NE18 Tp78 R14 W6			
Crop	Date Applied	Product Used	Rate
Canola Grown at Hudson School Site SW20, Tp78, R14, W6	4-Jun-04	Poast Ultra (sethoxydim)	200 ml/ac
	12-Jun-04	Merge	400 ml/ac
		Decis (for Flea Beetle control)	50 ml/ac
		Muster (ethametsulfuron methyl)	12 g/ac
12-Jun-04	Lontrel 360 (clopyralid)	227 ml/ac	
	Ag Surf	0.2% v/v	
29-Jun-04	Decis (for Lygus Bug control)	50 ml/ac	
Flax		No herbicides needed - hand pulled	
Wheat, Barley, Triticale, Oats	16-Jun-04	Refine Extra (tribenuron methyl)	8 g/ac
		Curtail M (clopyralid + MCPA ester)	800 ml/ac
		AgSurf	0.2% v/v
Peas		No herbicides needed - hand pulled	

## 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	10-May-04	8	0.5 inch	8-Oct-04	crop-push/direct
	Rapa Canola	5.8	6.5	10-May-04	8	0.5 inch	16-Sep-04	direct cut
	Flax Linseed	40	45	21-May-04	9	1 inch		
	Flax Solin	45	50	21-May-04	9	1 inch		
	Barley	77	86	14-May-04	8	1.5 inch	27-Sep-04	direct cut
	CWRS Wheat	90	101	14-May-04	8	1.5 inch	1-Oct-04	direct cut
	CPS/CWES	90	101	14-May-04	8	1.5 inch	8-Oct-04	direct cut
	Oats	81	90	13-May-04	6	1.5 inch	14-Oct-04	direct cut
	Triticale	117	131	14-May-04	8	1.5 inch	14-Oct-04	direct cut
	Peas-Green	149	167	6-May-04	5	1 inch	3-Sep-04	direct cut
Peas-Yellow	149	167	6-May-04	5	1 inch	14-Sep-04	direct cut	
DC	Napus Canola	8	8.9	12-May-04	8	0.75 inch	6-Oct-04	crop-push/direct
	Rapa Canola	5.8	6.5	12-May-04	8	0.75 inch	15-Sep-04	direct cut
	Flax Linseed	40	45	19-May-04	12	1 inch		
	Flax Solin	45	50	19-May-04	12	1 inch		
	2Row Barley	77	86	7-May-04	10	1 inch	15-Sep-04	direct cut
	6Row Barley	77	86	7-May-04	10	1 inch	15-Sep-04	direct cut
	Hulless Barley	77	86	7-May-04	10	1 inch	15-Sep-04	direct cut
	CWRS Wheat	90	101	7-May-04	10	1 inch	30-Sep-04	direct cut
	CPS/CWES	90	101	7-May-04	10	1 inch	5-Oct-04	direct cut
	SWSW	90	101	7-May-04	10	1 inch	5-Oct-04	direct cut
	Oats	81	90	8-May-04	6	1 inch	5-Oct-04	direct cut
	Triticale	117	131	7-May-04	10	1 inch	13-Oct-04	direct cut
	Peas	149	167	3-May-04	9	0.75 inch	27-Aug-03	direct cut

Muster® is a registered trademark of DuPont Canada Inc.  
 Post Ultra® is a registered trademark of BASF Canada  
 Lontrel® is a registered trademark of Dow AgroSciences Canada Inc.  
 AgSurf® is a registered trademark of IPCO  
 Buctril M® is a registered trademark of Bayer CropScience Canada  
 Refine Extra® is a registered trademark of DuPont Canada Inc.

Curtail M® is a registered trademark of Dow AgroSciences  
 Sencor 75 DF® is a registered trademark of Bayer CropScience Canada  
 MCPA Sodium 300® is a registered trademark of BASF Canada  
 Merge® is a registered trademark of BASF Canada  
 Decis® is a registered trademark of Bayer CropScience

# 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.

<b>CWRS Wheat</b>		<b>Yield as % of Katepwa</b>										
Variety	Dawson Creek					Fort St. John				B.C. Peace		
	2004 Yield		1994-2004			2004 Yield		1994-2004		2004	1994-2004	
	bus / acre	% of Check	Avg. (%)	Station Years	bus / acre	% of Check	Avg. (%)	Station Years	Avg. (%)	Avg. (%)	Station Years	
5500 HR	40 b-f	121	107	[5]	62 abc	108	101	[6]	115	104	[11]	
5601HR	41 a-e	124	105	[3]	60 a-e	105	100	[3]	115	102	[6]	
5602HR (BW 297)*	35 f-j	108	108	[1]	54 e-h	93	93	[1]	101	101	[2]	
AC Barrie	43 abc	133	104	[8]	58 b-g	100	95	[11]	117	100	[19]	
AC Intrepid	37 e-i	113	104	[6]	59 b-f	102	103	[8]	108	103	[14]	
AC Splendor	38 d-h	116	100	[7]	56 c-h	97	95	[9]	107	97	[16]	
Alikat	35 f-j	109	100	[5]	54 f-i	93	96	[6]	101	98	[11]	
CDC Go (BW 781)	34 g-j	105	103	[2]	52 ghi	91	94	[2]	98	98	[4]	
CDC Imagine	34 hij	104	105	[4]	56 c-h	98	102	[4]	101	104	[8]	
CDC Osler (PT555)	35 f-j	107	103	[2]	56 c-h	98	100	[2]	102	101	[4]	
CDC Teal	35 g-j	106	102	[7]	56 c-h	97	96	[10]	102	99	[17]	
Harvest	36 e-j	111	102	[4]	54 e-h	93	96	[4]	102	99	[8]	
Infinity (BW 799)*	42 a-d	128	128	[1]	60 a-f	103	103	[1]	116	116	[2]	
Journey	37 e-i	113	106	[4]	57 b-h	99	94	[4]	106	100	[8]	
Kanata**	34 hij	103	86	[4]	47 i	82	84	[5]	92	85	[9]	
<b>Katepwa</b>	<b>33 ij</b>	<b>100</b>	<b>100</b>	<b>[8]</b>	<b>58 b-g</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	<b>100</b>	<b>100</b>	<b>[19]</b>	
Lillian	35 f-j	107	106	[2]	59 b-g	102	104	[2]	104	105	[4]	
Lovitt	38 d-h	117	117	[2]	55 d-h	96	96	[2]	106	106	[4]	
McKenzie	41 a-e	125	108	[5]	62 a-d	107	102	[7]	116	105	[12]	
Park	32 j	97	97	[8]	51 hi	88	88	[6]	92	92	[14]	
Peace (PT 416)*	37 d-i	114	114	[1]	56 c-h	97	97	[1]	106	106	[2]	
Prodigy	44 ab	134	117	[5]	56 c-h	98	99	[7]	116	108	[12]	
Snowbird**	37 d-i	114	106	[4]	61 a-d	105	98	[5]	109	102	[9]	
Superb	45 a	138	117	[4]	66 a	114	109	[4]	126	113	[8]	
LSD (P=.05) =	4.78				6.62							
CV value (%) =	9.05				8.19							
<b>Varieties not tested in 2004 (1989 - 2003)</b>								<b>Last Year Tested</b>				
5600 HR			103	[3]			108	[4]	( 2002 )	106	[7]	
AC Abbey			104	[4]			110	[6]	( 2002 )	107	[10]	
AC Cadillac			97	[4]			83	[6]	( 2001 )	90	[10]	
AC Cora			100	[3]			102	[6]	( 2000 )	101	[9]	
AC Domain			94	[4]			90	[7]	( 2000 )	92	[11]	
AC Eatonia			99	[4]			99	[7]	( 2000 )	99	[11]	
AC Elsa			110	[5]			107	[7]	( 2002 )	109	[12]	
AC Majestic			109	[4]			102	[7]	( 2001 )	106	[11]	
AC Michael			100	[4]			100	[7]	( 2000 )	100	[11]	
AC Minto			103	[5]			103	[7]	( 1995 )	103	[12]	
CDC Bounty			103	[4]			103	[5]	( 2003 )	103	[9]	
CDC Makwa			100	[6]			100	[7]	( 1995 )	100	[13]	
Columbus			97	[7]			99	[3]	( 1992 )	98	[10]	
Laura			101	[4]			105	[7]	( 2000 )	103	[11]	
Neepawa			97	[9]			101	[8]	( 1996 )	99	[17]	
Pasqua			99	[4]			93	[6]	( 1995 )	96	[10]	
Roblin			95	[6]			95	[9]	( 2003 )	95	[15]	

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

\* first year tested, very limited data available

\*\*HWSW Hard White Spring Wheat

**Katepwa - check variety**

# CWRS Wheat

## Variety Descriptions

Variety	B.C.Peace Averages 1994-2004					BC Peace 2001-02			Alberta Agdex 100/32							Distributor
	Whole Head		Bushel			0-9 scale (0=nil)**			Resistance to:					Tolerance to:		
	Moist.	+/- check***	Height cm	Weight lbs/bu	Protein % [st.yrs]	Septoria complex	Powdery Mildew	Lodging	Shatter	Loose Smut	Common Bunt	Leaf Spot	Sprouting	FHB		
■ 5500 HR	28.6	2.9	84	65	13.5 [9]	3.8	1.8	F	G	I	I	P	G	F	Agricore United	
■ 5601HR	34.1	3.4	81	63	13.7 [6]	2.0		G	G	I	I	P	F	F	Agricore United	
■ 5602HR (BW 297)*	36.7	9.2	72	62	13.0 [2]			G	G	R	R	P	XX	F+	Agricore United	
■ AC Barrie	25.0	2.8	88	63	13.9 [9]	3.7	2.8	G	G	R	R	P	G	F	SeCan	
■ AC Intrepid	22.9	-1.0	88	63	13.2 [9]	3.8	1.2	G	G	I	R	F	P	P	Canterra	
■ AC Splendor	21.7	-1.4	87	62	14.0 [9]	3.8	1.4	F	G	I	I	F	F	P	SeCan	
Alikat	23.3	-2.4	83	63	13.8 [9]	5.5	2.6	F	G	R	R	P	F	F	Canterra	
CDC Go (BW 781)	28.7	1.2	68	63	14.4 [4]			G	G	S	I	P	P	F	U of S	
■ CDC Imagine	28.0	-0.7	83	63	13.5 [8]	3.6	1.0	G	G	R	R	P	F	P	Sask Wheat Pool	
CDC Osler (PT 555)	26.3	-1.3	70	63	13.8 [4]			G	G	R	I	XX	F	P	U of S	
CDC Teal	21.5	-0.6	77	63	13.9 [6]	2.3		G	G	I	I	P	P	VP	Quality Assured Seeds	
■ Harvest	27.5	-1.3	82	64	14.1 [8]	5.0	0.6	VG	G	R	S	P	EX	VP	Quality Assured Seeds	
■ Infinity (BW 799)*	31.7	4.2	63	62	12.0 [2]			G	G	R	R	P	G	P	Canterra	
■ Journey	33.2	4.4	81	64	14.7 [8]	3.3	2.0	VG	G	I	R	F	G	F	Sask Wheat Pool	
■ Kanata***	28.5	-0.2	81	64	13.7 [9]	3.9	1.4	G	G	I	S	P	G	F	Quality Assured Seeds	
<b>Katepwa</b>	<b>22.2</b>	<b>0.0</b>	<b>91</b>	<b>62</b>	<b>13.4 [9]</b>	<b>4.0</b>	<b>1.4</b>	<b>F</b>	<b>G</b>	<b>R</b>	<b>R</b>	<b>P</b>	<b>F</b>	<b>F</b>	<b>SeCan</b>	
■ Lillian	26.9	-0.7	77	63	13.6 [4]			G	G	R	I	P	G	VP	SeCan	
■ Lovitt	32.9	0.7	73	62	12.8 [4]	2.7		G	G	G	I	XX	VG	P	Canterra	
McKenzie	21.2	-0.5	87	63	12.9 [7]	3.9	2.3	F	G	S	R	P	EX	F	Agricore United	
Park	24.4	2.1	79	63	12.6 [2]			F	G	R	I	P	G	VP	Stock Seed Distribution	
Peace (PT 416)*	32.8	5.3	68	61	12.4 [2]			XX	XX	XX	XX	XX	XX	XX	Canterra	
■ Prodigy	27.4	2.4	88	64	13.7 [9]	2.6	3.3	G	F	I	R	P	F	VP	Sask Wheat Pool	
■ Snowbird***	30.0	1.2	88	63	13.2 [9]	3.9	0.4	G	G	R	S	P	G	P	Quality Assured Seeds	
■ Superb	34.0	5.2	81	63	12.9 [8]	4.2	0.4	G	G	I	R	P	G	P	SeCan	
Varieties not tested in 2004 ( Averages 1989-2003 )																
■ 5600 HR	27.8	3.1	96	64.1	12.7 [5]	2.9	3.6	G	G	R	R	P	G	P	Agricore United	
■ AC Abbey	22.4	-0.1	84	62.7	12.6 [5]	3.7	0.6	F	G	I	R	P	P	F	Semiarid Prairie Ag	
■ AC Cadillac	20.3		99	62.8	13.5 [3]	3.9	0.7	F	G	R	R	F	F	F	Quality Assured Seeds	
AC Cora	17.6		93	61.6	13.3			F	G	R	R	G	F	F	SeCan	
AC Domain	19.5		85	62.4	14.2			VG	G	G	G		F		SeCan	
■ AC Eatonia	23.1		92	61.1	12.9			P	G	I	R	P	G	XX	Agricore United	
■ AC Elsa	24.8	3.1	88	61.0	13.8 [5]	2.7	0.8	G	G	R	I	G	F	P	SeCan	
■ AC Majestic	23.2		96	61.8	12.7 [3]	2.2	2.3	G	F	I	R	P	EX	F	SeCan	
AC Michael	18.5		93	60.6	12.8			F	G	R	I	XX	F	P	SeCan	
AC Minto	14.6		94	62.5				G	G	G	G		F		SeCan	
CDC Bounty	26.1	0.8	92	65.4	13.7 [7]	3.7	1.3	F	G	R	I	P	F	F	Canterra	
CDC Makwa	14.9		89	61.9				G	G	G	F		P		SeCan	
Columbus	25.5		88	63.2				G	G	F	G		F		SeCan	
Laura	24.1		92	61.1	13.0			G	G	F	P		F		SeCan	
Neepawa	20.0		91	60.9				G	G	G	F		F		AB Stock Seed Distri. Comm	
Pasqua	15.8		87	61.8				G	G	P	F		P		SeCan	
Roblin	20.9	-0.5	73	62.8	15.1 [4]	4.2		VG	G	G	P		F		SeCan	

\* first year tested, very limited data available

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

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

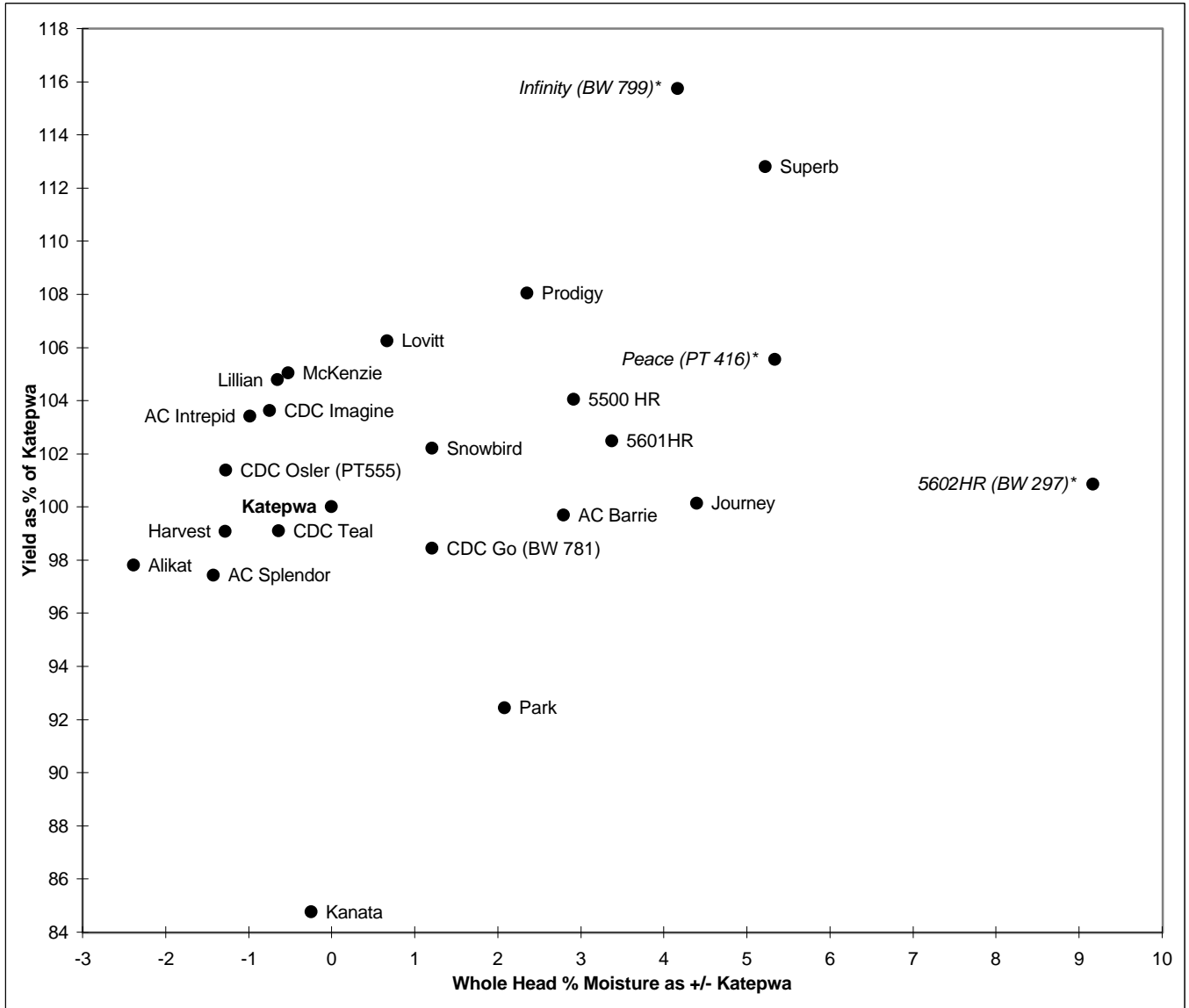
F = fair, P = poor (susceptible), VP = very poor

\*\*\*HWSW Hard White Spring Wheat

### ■ Protected by Plant Breeders' Rights

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

Note: \*\*\*Whole Head %Moisture = To accommodate a more accurate system of comparing maturity *between years*, maturity data (given as whole head % moisture), is now compared as *relative to the check (+/-)* in a similar fashion as yield data. Whole head % moisture is a tangible (quantitative) measurement, not an assigned relative value (qualitative), and thus a more accurate value. The values displayed here show how much "wetter" or "drier" a given variety is as compared to the check variety, at the time of head collection. Head collection occurs when the earliest lines are below 20% moisture.



\* first year tested, very limited data available

## CANADA PRAIRIE SPRING WHEAT

## CANADA WESTERN EXTRA STRONG WHEAT

All current Canada Prairie Spring varieties are awned and should be treated with a systemic fungicide seed treatment to control smut. Canada Western Extra Strong wheats have unique gluten properties. Avoid deep seeding CPS or CWES wheats. Seeding rates for these wheats should be increased 20 to 25% due to the larger kernel size. [The CPS and CWES wheats are traditionally grown together in the same trial]

CPS Wheat		Yield as % of AC Taber										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2004 Yield		1993-2004		2004 Yield		1994-2004		2004	1993-2004	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
5700PR	CPS red	50 ab	101	100	[5]	72 b	106	100	[6]	104	100	[11]
5701PR	CPS red	41 de	81	104	[3]	65 cd	96	92	[4]	89	98	[7]
AC Crystal	CPS red	47 abc	94	104	[7]	67 c	100	97	[9]	97	100	[16]
AC Foremost	CPS red	51 a	102	99	[8]	64 cd	95	99	[10]	98	99	[18]
<b>AC Taber</b>	<b>CPS red</b>	<b>50 ab</b>	<b>100</b>	<b>100</b>	<b>[9]</b>	<b>67 bc</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	<b>100</b>	<b>100</b>	<b>[20]</b>
AC Barrie	CWRS	45 bcd	90	89	[4]	55 e	82	76	[4]	86	82	[8]
Katepwa	CWRS	36 e	71	84	[4]	53 e	79	76	[4]	75	80	[8]
		LSD (P=.05) = 5.60				4.47						
		CV value (%) = 8.65				4.79						
Varieties not tested in 2004 ( Averages 1989-2003 )											Last Year Tested	
AC Karma	CPS white			96	[5]			102	[7]	(2000)	99	[12]
AC Vista	CPS white			110	[4]			101	[6]	(2001)	105	[10]
Cutler	CPS red			90	[5]			89	[7]	(1999)	90	[12]

Means followed by the same letter (both charts as grown together) do not significantly differ (P=.05, LSD)

### AC Taber - check variety

\* first year tested, very limited data available

CPS & CWES grown together in same trial.

CWES Wheat		Yield as % of AC Taber										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2004 Yield		1993-2004		2004 Yield		1994-2004		2004	1993-2004	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
<b>AC Taber</b>	<b>CPS red</b>	<b>50 ab</b>	<b>100</b>	<b>100</b>	<b>[9]</b>	<b>67 bc</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	<b>100</b>	<b>100</b>	<b>[20]</b>
Amazon	CWES	35 e	71	92	[5]	61 d	91	84	[7]	81	88	[12]
AC Barrie	CWRS	45 bcd	90	89	[4]	55 e	82	76	[4]	86	82	[8]
Katepwa	CWRS	36 e	71	84	[4]	53 e	79	76	[4]	75	80	[8]
		LSD (P=.05) = 5.60				4.47						
		CV value (%) = 8.65				4.79						
Varieties not tested in 2004 ( Averages 1989-2003 )											Last Year Tested	
AC Corrine	CWES			102	[1]			95	[3]	(2000)	99	[4]
Bluesky	CWES			93	[5]			90	[7]	(2000)	92	[12]
CDC Rama	CWES			105	[2]			81	[2]	(2002)	93	[4]
Glenavon	CWES			101	[3]			87	[4]	(2003)	94	[7]
Glenlea	CWES			97	[5]			93	[7]	(2000)	95	[12]
Laser	CWES			87	[2]			83	[4]	(2000)	85	[6]
Wildcat	CWES			78	[5]			79	[7]	(1999)	79	[12]

# CPS / CWES Wheat

# Variety Descriptions

		B.C. Peace Averages 1994-2004					B.C. Peace 2001-02		Data Alberta Agdex 100/32									
Variety	Type	***Whole Head		Bushel			0-9 scale (0=nil)**		Resistance to:							Tolerance to:		Distributor
		% Moist.	+/- check***	Height cm	Weight lbs/bu	Protein % [st.yrs]	Septoria complex	Powdery Mildew	Lodging	Shatter	Root Rot	Loose Smut	Common Bunt	Leaf Spot	Sprouting	FHB		
■ 5700PR	CPS red	29.8	-1.3	72	67	11.9 [8]	3.65	0.88	EX	G	F	S	R	P	P	VP	Agricore United	
■ 5701PR	CPS red	36.0	-0.6	70	62	12.2 [6]	3.33		G	G	I	S	P	P	VP	Agricore United		
■ AC Crystal	CPS red	28.5	1.2	76	66	11.7 [8]	2.35	1.76	G	G	P	I	R	F	P	VP	SeCan	
AC Foremost	CPS red	22.8	-2.1	68	62	12.0 [6]		3	EX	G	F	R	R	P	F	VP	SeCan	
<b>AC Taber</b>	<b>CPS red</b>	<b>25.6</b>	<b>0.0</b>	<b>78</b>	<b>64</b>	<b>11.7 [8]</b>	<b>2.43</b>	<b>1.44</b>	<b>G</b>	<b>G</b>	<b>F</b>	<b>S</b>	<b>R</b>	<b>F</b>	<b>P</b>	<b>VP</b>	<b>SeCan</b>	
■ Amazon	CWES	32.0	2.0	95	66	13.0 [8]	3.36	1.25	G	G	I	R	I	F	P	P	Canterra	
■ AC Barrie	CWRS	31.0	-4.5	82	64	13.8 [8]	4.58	3.07	G	G	F	R	R	P	G	F	SeCan	
Katepwa	CWRS	27.9	-7.6	90	62	12.8 [9]	4.03	1.44	F	G	F	R	R	P	F	F	SeCan	
<u>Varieties not tested in 2004 ( Averages 1989-2003 )</u>																		
AC Corrine	CWES	27.4		91	61				G	G	I	R	I	F	P	P	Quality Assured	
■ AC Karma	CPS white	15.8		83	62				G	G	F	I	R	P	P	VP	SeCan	
■ AC Vista	CPS white	18.9		88	68	10.1 [2]	2.94	2.63	G	G	F	I	R	P	P	P	Quality Assured	
Bluesky	CWES	17.8		99	61				F	G	R	R	I	P	P	P	SeCan	
CDC Rama	CWES	38.2	-0.1	98	80	13.7 [4]	2.9	0.94									Quality Assured	
Cutler	CPS red	13.9		77	62				G	G	F	S	S	P	F	VP	U of A	
■ Glenavon	CWES	35.1	-0.3	101	70	12.7 [6]	3.06	1.07	G	G	I	R	I	P	P	P	SeCan	
Glenlea	CWES	24.6		102	61				G	G	R	R	I	P	G	P	AB Stock Seed Comm.	
■ Laser	CWES	18.1		90	61				EX	G	I	R	I	P	F	P	Canterra	
Wildcat	CWES	16.0		89	59				F	G	F	G	P	F	F	F	SeCan	

\* first year tested, very limited data available

### AC Taber - check variety

■ Protected by Plant Breeders' Rights

\*\*\* Whole Head %Moisture = see note bottom of page 8

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

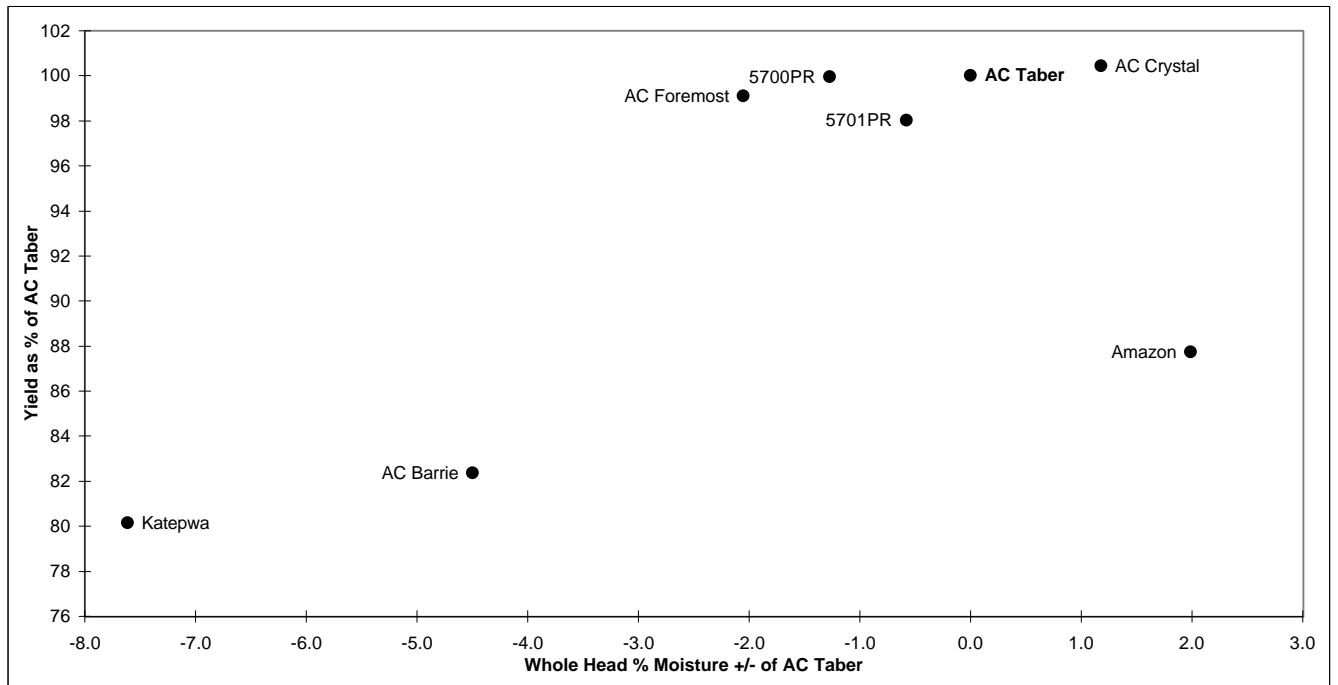
F = fair, P = poor (susceptible), VP = very poor (very susceptible)

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

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

# CPS / CWES Wheat

# Regional Variety Performance 1994-2004



# BARLEY

Hulless barley varieties have significantly less fibre and higher protein levels than conventional barley and therefore produce a higher level of digestible energy for monogastric animals. In hulless varieties, approximately 12% of the lower yield can be attributed to the lack of a hull. Note that some new lines of hulless have demonstrated the potential to surpass the traditional 2-row barley Harrington in yield. Hulless bushels displayed already adjusted. Two row malting barleys are more susceptible to sprouting. Some malting varieties have interim registration and are only grown under contract for plant scale malting tests.

Six Row Barley		Yield as % of Harrington										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2004 Yield		1993-2004		2004 Yield		1993-2004		2004	1993-2004	
		bus / acre	% of check	Avg. Yrs.	Stn. [ ]	bus / acre	% of check	Avg. (%)	Stn. [ ]	Avg. (%)	Avg. (%)	Stn. [ ]
AC Albright	feed	65 de	88	97	[8]	75 hi	76	96	[11]	82	97	[19]
AC Harper	feed	79 abc	108	112	[7]	107 abc	109	109	[9]	108	110	[16]
AC Lacombe	feed	76 a-d	103	116	[9]	102 bcd	103	110	[12]	103	113	[21]
AC Metcalfe <sup>1</sup>	2R malt	84 ab	114	114	[9]	101 bcd	103	108	[12]	108	111	[21]
AC Rosser	feed	85 a	115	114	[7]	112 a	115	116	[9]	115	115	[16]
B1602	malt(white)	75 a-d	102	101	[8]	84 fgh	86	93	[10]	94	97	[18]
CDC Battleford	malt	83 abc	113	115	[3]	96 de	98	114	[3]	106	114	[6]
CDC Sisler	malt(white)	80 abc	108	103	[6]	97 cde	99	105	[8]	103	104	[14]
CDC Springside	malt(white)	82 abc	111	111	[3]	96 de	98	109	[3]	105	110	[6]
CDC Tisdale	malt	82 abc	111	109	[3]	94 def	96	113	[3]	103	111	[6]
CDC YORKTON	malt	78 abc	105	109	[2]	89 efg	91	102	[4]	98	105	[6]
<b>Harrington</b>	<b>2R malt</b>	<b>74 a-d</b>	<b>100</b>	<b>100</b>	<b>[9]</b>	<b>98 cde</b>	<b>100</b>	<b>100</b>	<b>[12]</b>	<b>100</b>	<b>100</b>	<b>[21]</b>
Kasota	feed(sd)	66 de	89	116	[9]	72 ij	73	108	[12]	81	112	[21]
Lacey	malt(white)	74 a-d	100	95	[2]	96 de	98	101	[2]	99	98	[4]
LEGACY	malt (white)	74 a-d	100	104	[4]	82 gh	83	101	[4]	92	103	[8]
Mahigan	feed(sd)	73 bcd	98	114	[6]	83 gh	84	108	[8]	91	111	[14]
Manny	feed	83 abc	112	119	[2]	104 a-d	106	112	[2]	109	115	[4]
Tradition (BT954)	malt(white)	72 cd	98	96	[3]	95 de	97	102	[3]	97	99	[6]
Trochu	feed	81 abc	110	113	[4]	109 ab	111	111	[5]	110	112	[9]
LSD (P=.05) =		11.80				10.18						
CV value (%) =		11.06				7.73						
<b>Varieties not tested in 2004 ( Averages 1989-2003 )</b>												
AC Ranger	forage			119	[3]			122	[3]	( 2003 )	120	[6]
AC Stacey	feed			116	[3]			98	[3]	( 1996 )	107	[6]
Argyle	malt			107	[8]			99	[3]	( 1994 )	103	[11]
Bonanza	malt			93	[6]			97	[1]	( 1992 )	95	[7]
Brier	feed			117	[8]			114	[4]	( 1995 )	116	[12]
Bronco	feed			103	[3]			105	[3]	( 1998 )	104	[6]
CDC EARL	feed(sd)			111	[5]			108	[7]	( 1999 )	109	[12]
Duel	malt			100	[6]			94	[3]	( 1995 )	97	[9]
Duke	feed(sd)			101	[8]			118	[4]	( 1995 )	110	[12]
Excel	malt (white)			113	[2]			110	[3]	( 2002 )	111	[5]
Foster	malt			104	[2]			96	[4]	( 2000 )	100	[6]
<i>GAMINE</i> *				120	[1]			100	[1]	( 2001 )	110	[2]
Jackson	feed			92	[8]			94	[4]	( 1995 )	93	[12]
Leduc	feed			108	[8]			109	[4]	( 1995 )	109	[12]
Niska	feed(sd)			120	[3]			116	[4]	( 2002 )	118	[7]
Robust	malt (white)			99	[3]			98	[3]	( 2003 )	99	[6]
Stander	malt			102	[3]			99	[5]	( 2000 )	100	[8]
Stetson	feed(sd)			112	[4]			104	[7]	( 2000 )	108	[11]
Tankard	malt			85	[3]			83	[3]	( 1996 )	84	[6]
Tukwa	feed(sd)			121	[5]			102	[7]	( 1999 )	111	[12]
<i>Westford</i>	forage			84	[1]			79	[1]	( 2001 )	81	[1]
Vivar <sup>2</sup>	feed(sd)			123	[3]			123	[4]	( 2003 )	123	[7]

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

\* first year tested, very limited data available

## Harrington - check variety

Vivar<sup>2</sup> was intended to be in the 2004 test but had to be pulled by co-ordinator.

AC Metcalfe<sup>1</sup> (2R malt) will be the future barley check.

(sd) semi-dwarf variety

Two Row Barley			Yield as % of Harrington										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace			
		2004 Yield		1993-2004		2004 Yield		1993-2004		2004		1993-2004	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
AC Metcalfe <sup>1</sup>	malt	101 cde	119	114	[9]	105 bc	123	109	[12]	121	112	[21]	
Calder	malt	101 cde	119	117	[2]	101 bcd	118	110	[2]	119	113	[4]	
CDC Bold	feed(sd)	98 def	115	111	[5]	94 de	110	115	[6]	113	113	[11]	
CDC Copeland	malt	104 cd	122	104	[5]	103 bcd	120	110	[6]	121	107	[11]	
CDC Dolly	feed	102 cde	120	117	[9]	103 bcd	120	113	[12]	120	115	[21]	
CDC Helgason	feed	104 cd	122	110	[4]	107 abc	124	112	[5]	123	111	[9]	
CDC Kendall	malt	92 fg	108	102	[7]	98 cd	114	99	[11]	111	101	[18]	
CDC Select	malt	100 c-f	118	107	[3]	102 bcd	119	110	[4]	119	108	[7]	
CDC Trey	feed	94 ef	111	108	[2]	94 de	109	102	[2]	110	105	[4]	
<b>Harrington</b>	<b>malt</b>	<b>85 g</b>	<b>100</b>	<b>100</b>	<b>[9]</b>	<b>86 e</b>	<b>100</b>	<b>100</b>	<b>[12]</b>	<b>100</b>	<b>100</b>	<b>[21]</b>	
Merit	malt	112 ab	133	118	[5]	117 a	136	116	[7]	134	117	[12]	
Niobe	feed	94 ef	111	107	[3]	97 cd	113	106	[3]	112	106	[6]	
Ponoka	feed	117 a	138	131	[2]	117 a	136	129	[2]	137	130	[4]	
Rivers	feed	101 cde	119	107	[4]	85 e	98	101	[4]	109	104	[8]	
Seebe	feed	104 bcd	123	119	[9]	110 ab	128	113	[12]	125	116	[21]	
TR710	feed	107 bc	127	114	[2]	99 cd	115	112	[2]	121	113	[4]	
XENA	feed	101 cde	119	111	[5]	117 a	136	117	[6]	127	114	[11]	
LSD (P=.05) =		8.30				10.38							
CV value (%) =		5.75				7.12							
<u>Varieties not tested in 2004 ( Averages 1989-2003 )</u>												<u>Last Year Tested</u>	
AC Bountiful	malt			103	[3]			107	[5]	( 2001 )	105	[8]	
AC Oxbow	malt			114	[4]			98	[5]	( 1998 )	106	[9]	
B1215	malt			102	[3]			105	[5]	( 2000 )	103	[8]	
CDC Fleet	feed			101	[3]			83	[4]	( 1999 )	92	[7]	
CDC STRATUS	malt			117	[5]			102	[8]	( 2000 )	110	[13]	
CDC THOMPSON	malt(sd)			90	[6]			105	[8]	( 2003 )	98	[14]	
Manley	malt			119	[5]			105	[5]	( 1998 )	112	[10]	
Newdale	malt			106	[3]			103	[3]	( 2003 )	105	[6]	

AC Metcalfe<sup>1</sup> (2R malt) will be the future barley check.

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

**Harrington - check variety**

(sd) semi-dwarf variety

\* first year tested, very limited data available

Hulless Barley			Yield as % of Harrington										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace			
		2004 Yield		1993-2004		2004 Yield		1994-2004		2004		1993-2004	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
CDC McGwire	2 row	59 a-d	100	99	[5]	79 b-e	101	98	[6]	101	99	[11]	
Falcon	6 row	45 e	77	96	[9]	49 j	63	87	[11]	70	92	[20]	
Tyto	6 row	46 e	79	80	[3]	68 fgh	86	86	[3]	82	83	[6]	
<b>Harrington</b>	<b>2R malt</b>	<b>59 a-d</b>	<b>100</b>	<b>100</b>	<b>[9]</b>	<b>79 cde</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	<b>100</b>	<b>100</b>	<b>[20]</b>	
LSD (P=.05) =		9.44				8.15							
CV value (%) =		11.06				7.73							
<u>Varieties not tested in 2004 ( Averages 1989-2003 )</u>												<u>Last Year Tested</u>	
AC Bacon	6 row			99	[3]			96	[5]	( 2002 )	98	[8]	
AC Hawkeye	6 row			99	[3]			96	[3]	( 1999 )	98	[6]	
CDC Dawn	2 row			94	[3]			94	[5]	( 2000 )	94	[8]	
CDC Freedom	2 row			86	[3]			79	[5]	( 2002 )	82	[8]	
CDC Gainer	2 row			76	[2]			78	[4]	( 2000 )	77	[6]	
CDC Silky	6 row			96	[6]			89	[7]	( 2002 )	93	[13]	
CDC Speedy*	2 row							92	[1]	( 2000 )	92	[1]	
Jaeger	6 row			88	[2]			93	[4]	( 2000 )	90	[6]	
Peregrine	6 row			77	[3]			76	[4]	( 2002 )	76	[7]	
Phoenix	2 row			85	[5]			75	[5]	( 1998 )	80	[10]	
Tercel	2 row			75	[2]			85	[4]	( 2000 )	80	[6]	

# Feed Barley

# Variety Descriptions

Variety	Type	B.C. Peace Averages					B.C. 2001-2004			Alberta Agdex 100/32					Distributor
		2001-04	2002-04	1993-2004		0-9 scale (0=nil)**			Resistance to						
		***Whole Head %Moist	Days to Maturity	Height cm	Weight lbs/bu	Protein % [st.yrs]	Scald	Net	Blotch	Lodging	Loose Smut	False Smut	Root Rot	FHB	
Eligible for General Purpose Grades Only															
AC Albright	6 row	-4.5	95	82	52	12.6 [4]	1.6	1.7		P	P	P			SeCan
■ AC Harper	6 row	2.7	99	76	49	12.6 [6]	1.9	2.0	G	S	I	I	VP		SeCan
■ AC Lacombe	6 row	0.0	97	81	50	11.6 [6]	1.5	1.5	G	S	R	S	VP		SeCan
■ AC Rosser	6 row	8.0	102	78	50	11.6 [6]	2.8	1.7	F	S	R	I	VP		SeCan
CDC Dolly	2 row	4.7	102	72	54	13.1 [6]	1.8	2.4	F	S	R	I	F		SeCan
■ CDC Helgason	2 row	-2.6	97	75	54	13.0 [6]	2.1	2.3	G	R	R	I	P		SeCan
■ CDC Trey	2 row	-3.0	97	63	53	13.6 [2]	3.8	1.8	G	I	R	R	F		SeCan
■ Manny	6 row	2.8	103	66	50	11.3 [2]	0.5		G	I	R	S	P		SeCan
■ Niobe	2 row	-0.7	99	63	52	13.4 [4]	0.6	1.5	G	I	R	I	P		SeCan
■ Ponoka	2 row	1.7	103	70	53	12.7 [2]	1.0		G	R	R	I	F+		SeCan
■ Rivers	2 row	-2.4	99	71	52	12.6 [6]	2.9	1.7	G	R	R	R	F		Quality Assured
Seebe	2 row	11.2	105	85	54	14.2 [6]	0.6	2.2	G	S	R	S	F+		SeCan
TR710	2 row	4.2	105	57	51	13 [2]	2.9								Agricore United
■ Trochu	6 row	1.6	98	74	51	11.5 [6]	2.1	1.2	G	S	R	R	P		SeCan
■ XENA	2 row	1.9	101	71	54	12.7 [6]	2.3	2.2	G	S	I	R	F		Agricore United
Semi-dwarf varieties															
CDC Bold	2 row	1.1	99	66	53	13.0 [6]	0.9	2.4	G	S	R	I	F+		Canterra
■ Kasota	6 row	-1.5	96	67	52	12.3 [6]	1.6	3.4	EX	S	R	I	VP		SeCan
■ Mahigan	6 row	-1.3	97	64	52	12.6 [6]	1.5	3.6	EX	S	R	I	VP		SeCan
Varieties not tested in 2004 (Averages 1989-2003)															
AC Ranger	6 row(f)	6.1	97	77	51	11.4 [6]	2.8	1.5	F	XX	XX	XX	VP		Brandon Res. Center
AC Stacey	6 row		93	65	52					P	G	P			SeCan
Brier	6 row		99	80	50					P	G	P			SeCan
Bronco	6 row		102	90	54					P	F	F			Value Added
CDC EARL	6 row(sd)		101	69	50				EX	S	R	I	VP		SeCan
CDC Fleet	2 row		97	77	55					P	P	P			Quality Assured
Duke	6 row(sd)		98	72	51					P	F	F			SeCan
GAMINE *	6 row		106	97	49	11.9 [2]	6.0	3.1	G						SW Seed Canada Ltd
Jackson	6 row		92	66	52					P	P	P			SeCan
Leduc	6 row		97	77	50					F	G	F			SeCan
■ Niska	6 row	9.0	102	70	53	11.3 [4]	1.2	1.4	VG	S	R	S	VP		Canterra
■ Stander	6 row		103	77	53				G	S	S	I	VP		Agricore United
Stetson	6 row(sd)		102	53	51					P	G	F			Agricore United
Tukwa	6 row(sd)		100	73	51					P	G	F			SeCan
■ Vivar	6 row	6.0	96	71	52	11.5 [6]	2.2	1.9	VG	I	R	R	VP		SeCan
Westford *	6 row		102	112	47	11.3 [2]	3.4	2.4	F	P					Agricore United

(sd) semi-dwarf variety

\* first year tested, very limited data available

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

■ Protected by Plant Breeders' Rights

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

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

R = Resistant I = Intermediate S = Susceptible

Note: \*\*\*Whole Head %Moisture = To accommodate a more accurate system of comparing maturity *between years*, maturity data (given as whole head % moisture), is now compared as *relative to the check (+/-)* in a similar fashion as yield data. Whole head % moisture is a tangible (quantitative) measurement, not an assigned relative value (qualitative), and thus a more accurate value. The values displayed here show how much "wetter" or "drier" a given variety is as compared to the check variety, at the time of head collection. Head collection occurs when the earliest lines are below 20% moisture.

Malt Barley		Variety Descriptions													
		B.C. Peace Averages					2001-04 B.C. Avr.			Alberta Agdex 100/32					
Variety	Type	2001-2004	2002-04	1994-2004			0-9 scale (0=nil)**			Resistance to					Distributor
		***% Moist.	Days	Height	Weight	Protein	Scald	Net	Blotch	Lodging	Loose Smut	False Smut	Root Rot	FHB	
		+/- of Check	to Maturity	cm	lbs/bu	% [st.yrs]									
■ AC Metcalfe	2 row	0.7	97	78	54	13.0 [6]	1.8	2.1	F	R	I	I	F	SeCan	
B1602	6 row	-3.9	92	80	53	11.5 [4]	2.2	1.4	G	S	I	R	VP	Agricore United	
■ Calder	2 row	-3.2	97	64	52	13.1 [2]	1.8	1.4	F	R	R	I	F+	SeCan	
■ CDC Battleford	6 row	0.3	97	69	50	11.6 [4]	2.0	1.0	G	S	R	R	P	Quality Assured	
■ CDC Copeland	2 row	0.7	99	79	53	12.5 [6]	3.0	2.1	F	S	I	I	F	SeCan	
■ CDC Kendall	2 row	-2.5	95	74	54	13.3 [6]	2.1	2.3	F	S	S	I	F	Agricore United	
■ CDC Select	2 row	2.7	100	67	52	13.0 [4]	2.2	1.2	F	R	I	I	P	Agricore United	
■ CDC Sisler	6 row	0.9	95	86	51	12.0 [4]	2.4	1.0	P	S	S	I	F	Agricore United	
■ CDC Springside	6 row	-3.0	97	72	50	11.5 [4]	2.4	1.4	G	R	R	I	VP	Agricore United	
■ CDC Tisdale	6 row	-0.8	96	73	49	11.6 [4]	2.2	0.8	G	S	R	I	P	Quality Assured	
■ CDC YORKTON	6 row	-2.8	103	67	50		1.8		G	S	R	R	P	Agricore United	
<b>Harrington</b>	<b>2 row</b>	<b>0.0</b>	<b>95</b>	<b>71</b>	<b>53</b>	<b>12.8 [12]</b>	<b>3.3</b>	<b>2.8</b>	<b>F</b>	<b>S</b>	<b>S</b>	<b>I</b>	<b>F+</b>	<b>SeCan</b>	
■ Lacey	6 row	-1.7	98	63	51	12.7 [2]	2.4		G	I	R	R	VP	Newfield Seeds	
■ LEGACY	6 row	0.5	94	75	50	12.4 [6]	2.7	2.0	G	I	R	R	P	Agricore United	
■ Merit	2 row	9.7	101	73	53	12.3 [6]	2.4	2.2	F	S	R	I	F	Agricore United	
■ Tradition (BT954)	6 row	-2.9	93	66	51	12.4 [4]	3.0	1.0	G	S	R	R	XX	Busch Ag	
Varieties not tested in 2004 ( Averages 1989-2003)															
AC Bountiful	2 row		102	85	55	12.5 [2]	4.0	2.6	G	R	R	I	F	Quality Assured	
■ AC Oxbow	2 row		100	87	54				VG	G	F	F		SeCan	
Argyle	6 row		96	93	51				G	P	P	F		SeCan	
B1215	2 row		103	75	54				VG	P	F	F		Agricore United	
Bonanza	6 row		95	77	50				P	P	P	F		public	
CDC STRATUS	2 row		101	74	54				G	I	I	I	F	Quality Assured	
CDC THOMPSON	2 row	-1.8	95	57	55	13.2 [4]	1.5	3.7	G	P	G	F		Quality Assured	
Duel	6 row		98	89	50				G	P	F	F		Agricore United	
Excel	6 row	4.9	99	81	52	11.7 [4]	2.4	1.6	G	S	I	R	VP	Agricore United	
■ Foster	6 row		101	79	50				G	P				Agricore United	
Manley	2 row		104	78	53				G	P	F	F		SeCan	
■ Newdale	2 row					13.2 [6]		1.9	F	S	R	R	F	Quality Assured	
Robust	6 row	1.0	95	78	53	13.3 [10]	2.5	1.9	1.1	F	F	F		Cargill	
Tankard	6 row		103	80	63				G	P	P	F		SeCan	

Hulless Barley		Variety Descriptions													
		B.C. Peace Averages					2001-2004 Average			Resistance to					
Variety	Type	2001-2004	2002-04	1994-2004			0-9 scale (0=nil)**			Resistance to					Distributor
		***%Moist.	Days	Height	Weight	Protein	Scald	Net	Blotch	Lodging	Loose Smut	False Smut	Root Rot	FHB	
		+/- of Check	to Maturity	cm	lbs/bu	%									
■ CDC McGwire	2 row	4.2	98	74	65	12.7	0.77	2.19	EX	S	R	I	F	SeCan	
■ Falcon	6 row	4.6	95	63	63	14.8	1.52	2.13	EX	S	R	I	VP	Progres./SeCan	
■ Tyto*	6 row	1.1	99	61	62	13.3	1.63		EX	S	R	I	P	Progressive	
Varieties not tested in 2004 ( Averages 1989-2003)															
AC Bacon	6 row	0.5	99	81	61		1.95	1.47	F	S	I	I	F+	SeCan	
■ AC Hawkeye	6 row		102	100	62					P	P	F		Agricore United	
CDC Dawn	2 row		101	81	62					P	S	S	I	F+	
CDC Freedom	2 row	-1.5	98	86	63		3.66	2.55	F	S	R	I	F+	SeCan	
CDC Gainer	2 row		97	81	62					P	F	F		Quality Assured	
CDC Silky	6 row	5.5	102	76	60		1.25	1.28		F	F	F		Value Added	
CDC Speedy*	2 row			82	64									Value Added	
■ Jaeger	2 row		103	65	60					EX	S	S	I	VP	
■ Peregrine	6 row	-2.7	97	58	62		2.23	2.25	EX	S	I	I	VP	Progressive	
■ Phoenix	2 row		101	83	62					P	F	F		Progres./SeCan	
■ Tercel	6 row		99	76	62					P	F	F		Progressive	

(sd) semi-dwarf variety

\* first year tested, very limited data available

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

■ Protected by Plant Breeders' Rights

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

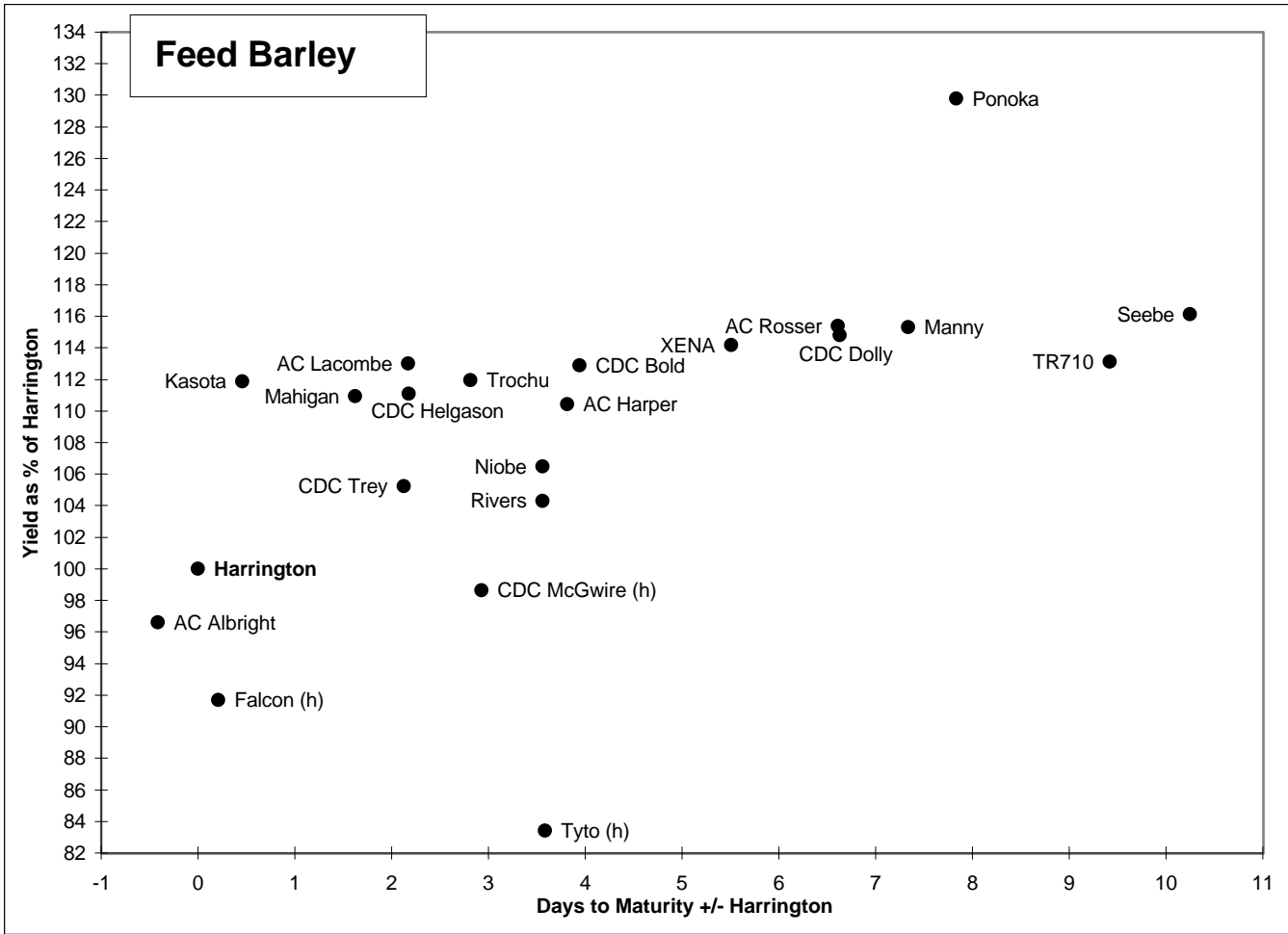
F = fair, P = poor, VP = very poor

\*\*\* Whole Head %Moisture = see note bottom of page 14

R = Resistant I = Intermediate S = Susceptible

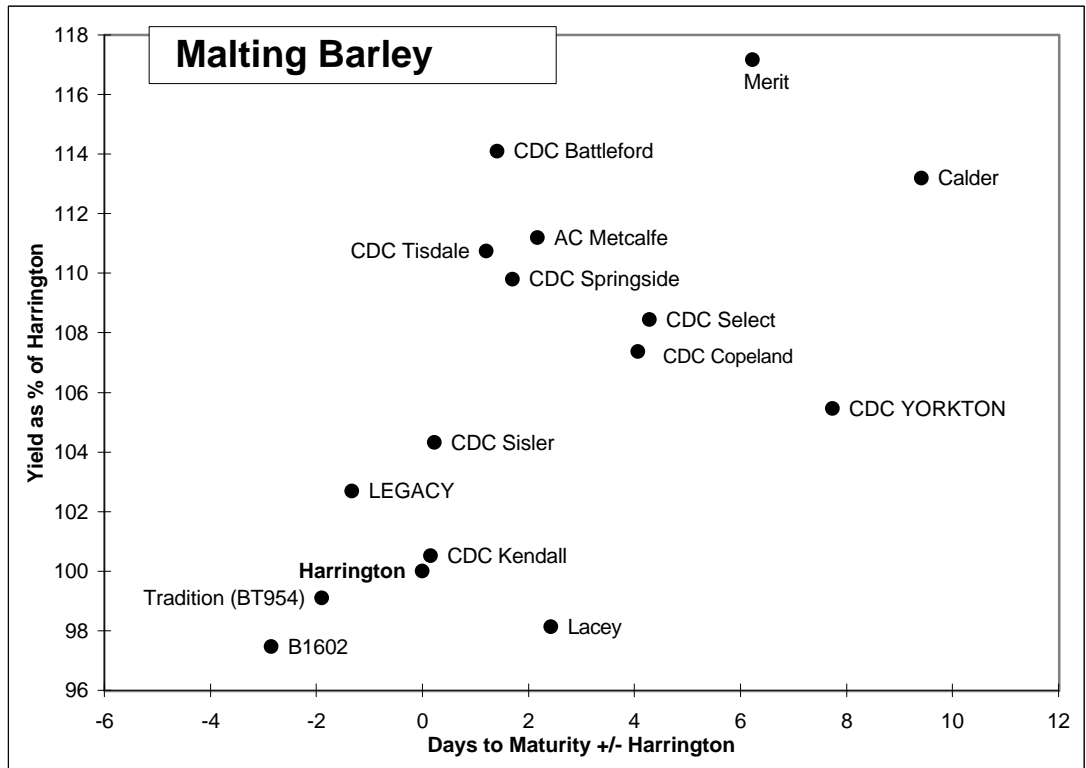
# Barley

## Regional Variety Performance 1993-2004



(h) Hulless

\* first year tested  
very limited data  
available.



# 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 this in mind while comparing yields of hulless oats to hulled varieties.

Oats		Yield as % of Cascade										
		Dawson Creek				Fort St. John				B.C. Peace		
Variety	Colour	2004 Yield		1993-2004		2004 Yield		1994-2004		2004	1993-2004	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Juniper	white	88 d	83	102	[7]	128 ab	104	102	[11]	93	102	[18]
AC Morgan	white	105 ab	98	108	[5]	119 b	97	107	[6]	97	107	[11]
AC Mustang	white	112 a	105	108	[8]	132 ab	107	107	[12]	106	107	[20]
<b>Cascade</b>	<b>yellow</b>	<b>107 ab</b>	<b>100</b>	<b>100</b>	<b>[8]</b>	<b>124 ab</b>	<b>100</b>	<b>100</b>	<b>[12]</b>	<b>100</b>	<b>100</b>	<b>[20]</b>
CDC Baler (forage oat)		102 abc	95	101	[2]	123 ab	99	104	[2]	97	102	[4]
CDC Orrin	white	109 a	102	107	[3]	135 a	109	110	[3]	106	109	[6]
Furlong *	tan	92 cd	86	86	[1]	126 ab	102	102	[1]	94	94	[2]
Lu (OT 7001)	yellow	91 d	85	91	[4]	124 ab	100	100	[4]	92	95	[8]
Murphy * (forage oat)		107 ab	100	100	[1]	136 a	110	110	[1]	105	105	[2]
Ronald	yellow	92 cd	87	93	[4]	135 a	109	101	[4]	98	97	[8]
	LSD (P=.05) =	10.78				14.36						
	CV value (%) =	7.47				7.81						
<b>Varieties not tested in 2004 ( Averages 1989-2003 )</b>												
										<b>Last Year Tested</b>		
AC Assiniboia	tan			86	[4]			88	[8]	( 2002 )	87	[12]
AC Belmont (h)				75	[4]			78	[8]	( 2000 )	76	[12]
AC Ernie* (h)				71	[1]			65	[2]	( 1999 )	68	[3]
AC Gwen (h)	white			75	[2]			81	[3]	( 2002 )	78	[5]
AC Medallion				116	[2]			94	[5]	( 2000 )	105	[7]
AC Preakness				113	[4]			102	[8]	( 2000 )	108	[12]
AC Rebel	yellow			104	[2]			93	[3]	( 2001 )	99	[5]
Athabasca				88	[4]			92	[2]	( 1992 )	90	[6]
Boudrais (h)	white			84	[2]			85	[2]	( 2002 )	85	[4]
Bullion (h)	white			73	[2]			70	[3]	( 2001 )	72	[5]
Calibre				97	[6]			105	[5]	( 1995 )	101	[11]
CDC Boyer	yellow			100	[6]			97	[9]	( 2002 )	98	[15]
CDC Dancer	yellow			93	[3]			97	[4]	( 2003 )	95	[7]
CDC Pacer				103	[2]			100	[5]	( 2000 )	101	[7]
Derby	white			100	[6]			98	[10]	( 2003 )	99	[16]
Foothill				90	[4]			91	[2]	( 1992 )	91	[6]
Grizzly				90	[4]			87	[2]	( 1992 )	89	[6]
Jasper				105	[4]			96	[8]	( 2000 )	101	[12]
Kaufmann	yellow			88	[2]			90	[3]	( 2002 )	89	[5]
Lee Williams (OT 7008)(h)	white			77	[2]			87	[2]	( 2002 )	82	[4]
Pinnacle	yellow			105	[3]			99	[4]	( 2002 )	102	[7]
Robert				95	[6]			95	[4]	( 1994 )	95	[10]
SW EXACTOR	white			109	[3]			103	[5]	( 2002 )	106	[8]
Triple Crown				110	[2]			100	[3]	( 2000 )	105	[5]
Waldern				108	[5]			109	[5]	( 1995 )	109	[10]

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

\* first year tested, very limited data available

**Cascade - check variety**

**(h) hulless variety**

Oats			Variety Descriptions					
Variety	Type	BC Peace Avg. (1994-2004)			Resistance to			Distributor
		Days to Maturity	Height cm	Bushel Weight lbs/bu	Lodging	Shatter	Smuts	
■ AC Juniper	milling	107	93	42	VG	G	I	Agricore United
AC Morgan	milling	113	89	41	VG		R	SeCan
■ AC Mustang	feed / forage	109	102	42	G	G	I	Agricore United
<b>Cascade</b>	<b>feed</b>	<b>109</b>	<b>102</b>	<b>40</b>	<b>G</b>	<b>G</b>	<b>S</b>	<b>SeCan</b>
CDC Baler	forage	114	92	41			S	Quality Assured
■ CDC Orrin	milling	112	83	42	G		R	Quality Assured
■ Furlong *	milling	116	82	38	G		R	Canterra
Lu (OT 7001)	feed	108	87	42	G		R	SeCan
■ Murphy *	forage	116	98	40			S	SeCan
■ Ronald (AC Ronald)	milling	113	83	43	VG		R	SeCan
<b>Varieties not tested in 2004 ( Averages 1989-2003 )</b>								
■ AC Assiniboia	milling	110	97	40	G	G	F	SeCan
AC Gwen (OT 297)	hulless	123	106	47	VG		G	SeCan
■ AC Belmont	hulless	109	94	41	G	G	G	SeCan
■ AC Ernie	hulless	108	85	42	F		G	C&M Seed Sales
■ AC Medallion	milling	109	97	40	F		VG	Cargill
■ AC Preakness	milling	108	101	40	F	G	G	Agricore United
■ AC Rebel	milling	114	95	42	G		G	Canterra Seeds
Athabasca	feed	103	87	40	G	G	P	SeCan
■ Boudrais (OT 799)	hulless	119	104	45	VG			Quality Assured
■ Bullion	hulless	113	90	51	VG		P	Agricore United
Calibre	milling	109	100	42	F	G	P	SeCan
CDC Boyer	milling	109	103	40	G	G	P	SeCan
■ CDC Dancer	milling	110	96	43	G		R	Cargill
CDC Pacer	milling	108	93	42	F	G	F	Quality Assured
Derby	milling	108	100	42	G	G	S	Agricore United
Foothill	forage	105	99	39	F	G	P	SeCan
Grizzly	feed / forage	107	90	41	F	G	P	public
Jasper	milling	105	104	42	F	G	P	SeCan
■ Kaufmann (OT 797)	milling	120	109	42	G			SeCan
Lee Williams (OT 7008)	hulless	112	84	43				SeCan
■ Pinnacle	milling	115	94	41	F		G	Quality Assured
Robert		106	93	40	G	G	G	SeCan
■ SW EXACTOR	milling	112	95	40	VG		F	Quality Assured
■ Triple Crown	milling	108	92	38	VG		G	Canterra
Waldern	feed	107	106	40	G	G	P	SeCan

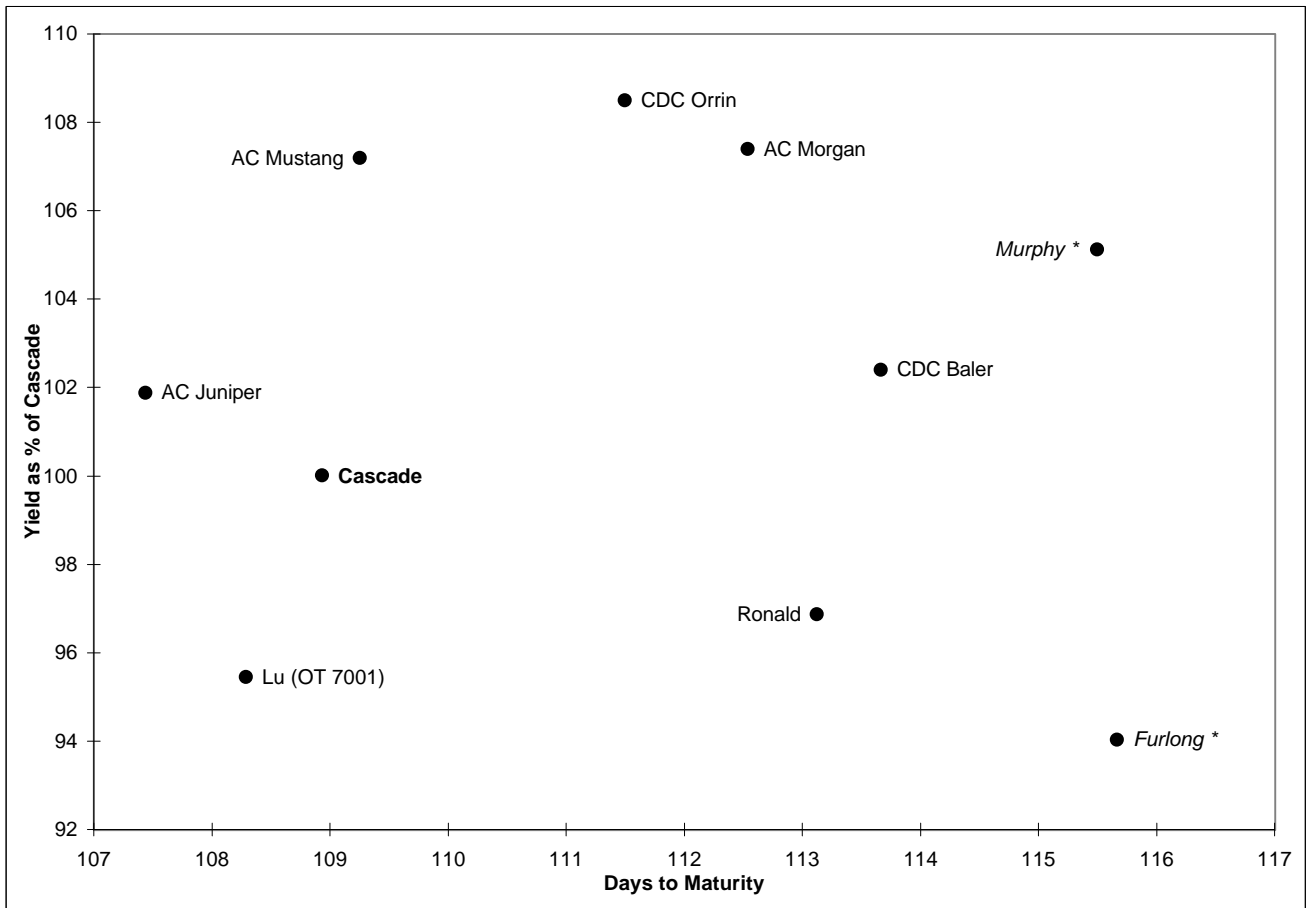
**Cascade - check variety**

\* first year tested, very limited data available

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

S = Susceptible I = Intermediate R = Resistant

■ Protected by Plant Breeders' Rights



\* First year tested, very limited data available.

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

On heavier soils and in the more moist areas, lodging resistance should be considered. The variation in straw feed quality between oat varieties is insignificant and should not be used as a variety selection criterion. The average feed values are: protein 4%, fibre 49%, calcium 0.27%, and phosphorus 0.08%.

Source: Alberta Agriculture, Food, and Rural Development website [www.agric.gov.ab.ca](http://www.agric.gov.ab.ca)

## SPRING TRITICALE

Triticale is a genetic cross (not a hybrid) developed by crossing wheat (*Triticum turgidum* or *Triticum aestivum*) with rye (*Secale cereal*). All varieties of spring triticale currently available are approximately 10 days later maturing than CWRS wheats, and as such they should not be grown in the B.C. Peace River region for grain production. Some varieties are proving to be earlier than traditional spring triticale varieties, and perhaps as breeding continues earlier lines may come along that we can grow here for grain. Their grain yields are "attention grabbers", and so it is worth watching their development at least for now. 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 that data is included.

Spring Triticale		Yield as % of Pronghorn									
		Dawson Creek			Fort St. John			B.C. Peace			
Variety	2004 Yield		2001-2004		2004 Yield		2001-2004		2004	2001-2004	
	bus / acre	% of check	Avg. Stn. (%) Yrs.		bus / acre	% of check	Avg. Stn. (%) Yrs.		Avg. (%)	Avg. (%)	Stn. Yrs.
AC Alta	77 a	101	104 [3]		88 a	101	102 [3]		101	103 [6]	
AC Ultima	68 b	89	98 [4]		82 ab	93	94 [4]		91	96 [8]	
<i>Companion</i> *	67 b	88	88 [1]		75 b	86	86 [1]		87	87 [2]	
<b>Pronghorn</b>	<b>76 a</b>	<b>100</b>	<b>100 [4]</b>		<b>88 a</b>	<b>100</b>	<b>100 [4]</b>		<b>100</b>	<b>100 [8]</b>	
LSD (P=.05) =	7.56				6.85						
CV value (%) =	6.57				5.15						
Varieties not tested in 2004 ( Averages 2001-2003 )						Last Year Tested					
AC Certa			88 [2]				89 [2]	( 2003 )		88 [4]	
SANDRO			104 [1]				97 [1]	( 2001 )		100 [2]	

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

\* first year tested, very limited data available

### Pronghorn - check variety

Spring Triticale		Variety Descriptions							
		Maturity (days to)	Whole Head % Moist.	Height (cm)	Bushel Weight (lbs/bus)	TKW (g / 1000)	0 - 9 scale; 0=nil Septoria complex Ergot		Distributor
AC Alta	126	4.9	84	52	52	3.0		Progressive	
AC Ultima	124	-6.6	98	57	48	3.2	0.6	Quality Assured	
<i>Companion</i> *	133	-1.1	103	47	43			SW Seed Canada Ltd	
<b>Pronghorn</b>	<b>128</b>	<b>0.0</b>	<b>102</b>	<b>56</b>	<b>45</b>	<b>3.1</b>	<b>0.3</b>	<b>Progressive</b>	
Varieties not tested in 2004 ( Averages 2001-2003 )									
AC Certa	118	1.2	98	60	45	2.3		Progressive	
SANDRO	148		117	58	50	1.5	3.1	SW Seed Canada Ltd	

## SOFT WHITE SPRING WHEAT

Soft White Spring Wheat		Yield as % of AC Reed and Variety Descriptions										
		Dawson Creek			Fort St. John			B.C. Peace 2002-2004 Averages				
Variety	2004 Yield		2002-2004**		2004 Yield		2002-2004		Bushel		Distributor	
	bus / acre	% of check	Avg stn (%) yrs		bus / acre	% of check	Avg. Stn. (%) Yrs.		Stn. Yield Yrs. Avg %	Days to Maturity		Weight lb/bu
AC Andrew	42 b	130	123 [2]		75 a	135	122 [3]		[5] 122	118	63	72 SeCan
AC Meena	47.4 a	147	131 [2]		73 a	131	120 [3]		[5] 126	119	63	73 Haney Farms
<b>AC Reed</b>	<b>32.3 c</b>	<b>100</b>	<b>100 [2]</b>		<b>56 b</b>	<b>100</b>	<b>100 [3]</b>		<b>[5] 100</b>	<b>120</b>	<b>63</b>	<b>65 SeCan</b>
Bhishaj	41.8 b	129	129 [1]		68 a	122	115 [2]		[3] 122	122	62	74 Tony Croymans
LSD (P=.05) =	5.27				12.07							
CV value (%) =	8.05				11.11							
Varieties not tested in 2004 ( Averages 2002 )												
AC Nanda*		106			105		[2] 106		112	62	70	Quality Assured
AC Phil*		108			100		[2] 104		104	62	63	Proven Seeds

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

\* first year tested, very limited data available

\*\*2003 DC yield data is not included in long term average due to poor germination of check variety

### AC Reed - check variety

# POLISH CANOLA

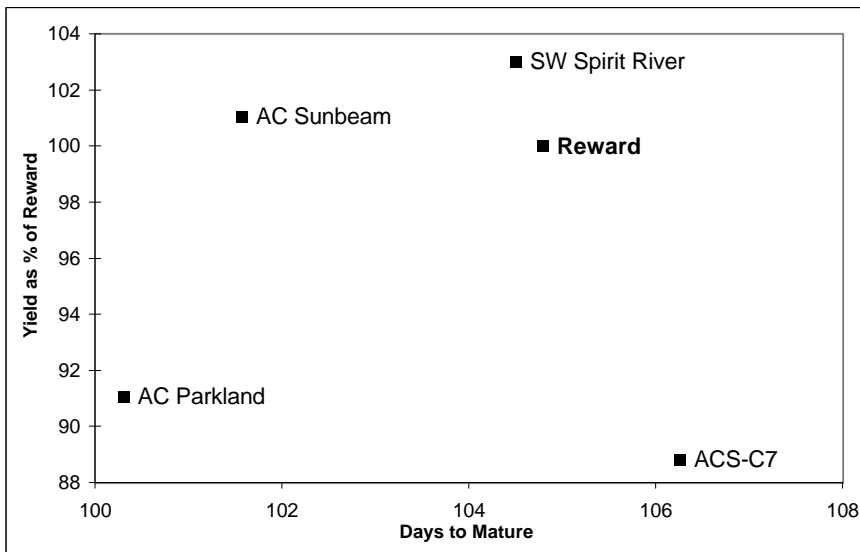
Polish canola (*Brassica rapa*) varieties generally yield considerably less and mature two to three weeks earlier than the majority of Argentine (*Brassica napus*) types. Polish varieties are more resistant to shattering and have seeds that are yellow-brown with, generally, less chlorophyll than Argentine canola. Polish varieties are also more susceptible to *root maggot* and *brown girdling root rot* damage. *Brown girdling root rot* is a concern in the B.C. Peace region, as it reduces yield and causes swathing problems.

*Blackleg* has occurred in both the BC and Alberta Peace region, but has never become a big concern. Polish canola is susceptible to *blackleg*, but is not as susceptible as Argentine canola because Polish canola matures earlier reducing the impact of this disease. Even though *Blackleg* is not a big concern, to keep it that way, all canola seed should be treated with the full rate of a seed treatment that controls *seed borne blackleg*. This should include active ingredients that are known for their ability to control the disease, such as: *benomyl*, *carbathiin*, *iprodione* or *thiabendazole*. Two races of *white rust* (staghead) exist in the area, *Race 7a* and *7v*, and all Polish varieties are susceptible to race *7v*. Another strain, *2a*, has been identified in the Peace and is still being watched for.

Seeding depth should be shallow, (0.5 to 1.5 inches), and seed should be placed only deep enough to reach moisture. If soil is dry down to two inch depth, it is better to seed shallow and let seed germination wait for rain.

Polish Canola			Yield as % of Reward											
Variety	Type	Maturity (days to)	Dawson Creek				Fort St. John				B.C. Peace			
			2004 Yield		1994-2004		2004 Yield		1994-2004		2004	1994-2004		
			bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
AC Parkland		100	33 ab	98	93	[3]	41 b	88	89	[5]	93	91	[8]	
AC Sunbeam	OP	102	34 ab	101	100	[4]	45 ab	97	102	[7]	99	101	[11]	
ACS-C7	SYN	106	29 b	87	90	[3]	43 ab	92	88	[3]	90	89	[6]	
<b>Reward</b>	<b>OP</b>	<b>105</b>	<b>33 ab</b>	<b>100</b>	<b>100</b>	<b>[8]</b>	<b>47 a</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	<b>100</b>	<b>100</b>	<b>[19]</b>	
SW Spirit River	OP	105	36 a	108	109	[2]	44 ab	94	97	[2]	101	103	[4]	
LSD (P=.05) =			4.775				4.91							
CV value (%) =			9.37				7.28							
<b>Varieties not tested in 2004 ( Averages 1989-2003)</b>												<b>Last Year Tested</b>		
41P55	OP	103			90	[1]			101	[3]	( 2001 )	96	[4]	
CASH	SYN	104			102	[4]			97	[6]	( 2000 )	99	[10]	
FAIRVIEW	SYN	104			108	[2]			107	[5]	( 2000 )	107	[7]	
FOOTHILLS	OP	107			93	[2]			92	[4]	( 2001 )	92	[6]	
Hysyn® 110	SYN	104			102	[4]			103	[6]	( 2003 )	102	[10]	
Hysyn® 111	SYN	106			110	[3]			106	[5]	( 2003 )	108	[8]	
NORWESTER*		101							106	[2]	( 1998 )	106	[2]	
SW High Level*	OP	112			108	[1]			107	[2]	( 2002 )	107	[3]	
Valleyview	OP	104			105	[1]			96	[4]	( 2000 )	100	[5]	
WESTWIN	SYN	102			94	[2]			108	[4]	( 1998 )	101	[6]	

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



**Reward - check variety**

\* first year tested, very limited data available

Hysyn® is a registered trademark of Advanta Canada Inc.

**Polish Canola**

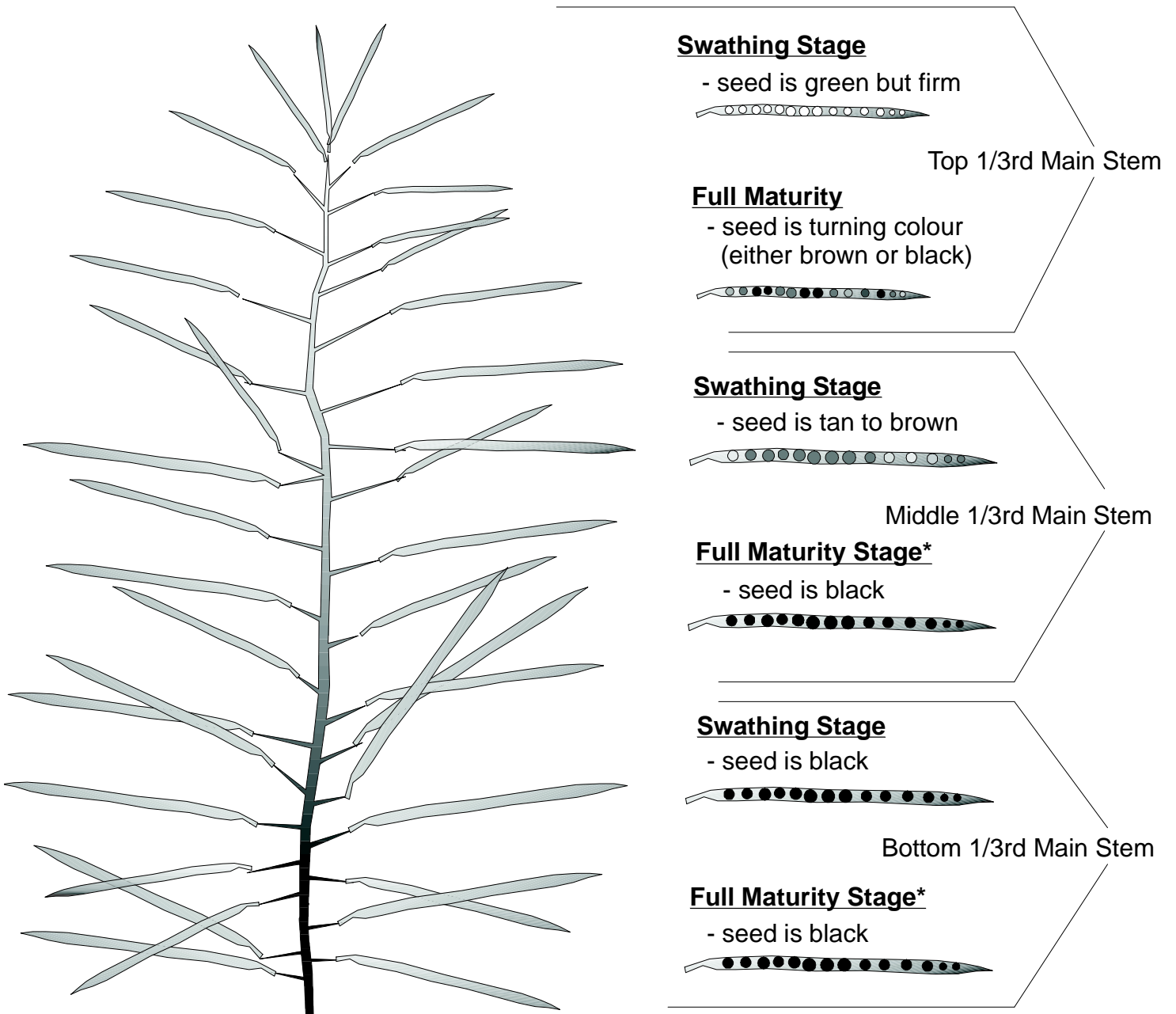
**BCGPA & Prairie-Wide Variety Performance**

**1994 - 2004**

# Definitions of Canola Maturity Used In This Report

Please check with the *Canola Council of Canada* for complete definition of “swathing 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.



\*Full Maturity Stage: as defined in this report on page 26 under column “days to mature”.

<b>Argentine Canola (conventional)</b>					<b>Yield as % of 46A65 **</b>						
Variety	Type	Dawson Creek			Fort St. John			B.C. Peace			
		2004	1997-2004	Stn.	2004	1997-2004	Stn.	2004	1997-2004	Stn.	
		% of check	Avg. (%)	Yrs.	% of check	Avg. (%)	Yrs.	Avg. (%)	Avg. (%)	Yrs.	
<b>46A65</b>	<b>OP</b>	<b>100</b>	<b>100</b>	<b>[4]</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	<b>100</b>	<b>100</b>	<b>[15]</b>	
46H02	HYB	101	108	[2]	112	103	[3]	106	105	[5]	
Peace	OP	80	85	[3]	83	88	[5]	82	87	[8]	
<b>Varieties not tested in 2004 ( Averages 1996-2003 ) Yields as % of 46A65</b>											
								<b>Last Year Tested</b>			
<i>BIANCA II*</i>	OP		82	[1]		107	[2]	( 2002 )	94	[3]	
<i>Canterra™ 1492*</i>	HYB		104	[1]		104	[2]	( 2001 )	104	[3]	
<i>Hi-Q*</i>	OP		95	[1]		99	[2]	( 2001 )	97	[3]	
<i>Hycore® 601*</i>	HYB		102	[1]		106	[2]	( 2001 )	104	[3]	
<i>IMC 105 *</i>	OP		97	[1]		101	[1]	( 2001 )	99	[2]	
<i>3311*</i>	OP		102	[1]		102	[2]	( 2001 )	102	[3]	
<i>LBD279*</i>	OP		102	[1]		104	[1]	( 2001 )	103	[2]	
<i>Legacy</i>	OP		91	[3]		100	[9]	( 2003 )	95	[12]	
<i>LoLinda*</i>	OP					87	[1]	( 2002 )	87	[1]	
<i>MillenniUM 03*</i>	HEAR					91	[1]	( 2002 )	91	[1]	
<i>Q2</i>	OP		95	[2]		106	[7]	( 2002 )	101	[9]	
<i>Skyhawk</i>	OP		96	[1]		105	[3]	( 2002 )	101	[4]	
<i>SP Armada*</i>	OP		100	[1]		106	[2]	( 2002 )	103	[3]	
<i>SW 5001*</i>	HYB		97	[1]		99	[2]	( 2001 )	98	[3]	
<i>Thunder*</i>	OP		103	[1]		105	[2]	( 2001 )	104	[3]	
<i>Y0276 *</i>	HYB		92	[1]		108	[1]	( 2003 )	100	[2]	
<b>46A65 - check variety</b>					SYN = Synthetic      HYB = Hybrid OP = Open Pollinated HEAR = High Erucic Acid Rapeseed						

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

Canterra™ is a tradename of Canterra Seeds  
 Hycore ® is a registered trademark of Agriprogress Inc.

\*\* As of 2003, canola varieties are compared against the *conventional* variety 46A65 since certified *Legacy* seed is no longer available. It is a good choice as it has been used in our BC Peace River region testing system for many years, thus it can be used without losing much of our historical information. It is the check of choice for the Prairie-Wide tests and other regional tests as well, at least up to now. If anyone wishes to compare new lines of either conventional or herbicide tolerant against the old check *Legacy*, it is still here in the conventional chart above.

### IMPORTANT NOTE FOR CANOLA

Please take note that the BC Grain Producers Association (BCGPA) strives to test more familiar canola lines for more than one year, and thus in any given year such lines are not necessarily in the new Prairie-Wide (PW) testing system. Therefore, the BCGPA tests and reports on such lines via their own "napus comparison trial" grown each year. This comparison trial is placed right beside the Prairie-Wides and uses the same check variety in an effort to provide this across-the-years summary that you see here. **The end result is that there are more canola lines in this report than is available when viewing our data via the PW testing system only.** The PW trials continue to be an excellent way to see new materials while the BCGPA strives to see longer term data. Caution should always be undertaken when viewing one-year data.

# HERBICIDE TOLERANT CANOLA

Argentine Canola (herbicide tolerant)		Yield as % of 46A65								
FINAL REPORT		Dawson Creek			Fort St. John			B.C. Peace		
		2004		1997-2004	2004		1997-2004	2004		1997-2004
		% of check	Avg. (%)	Stn. Yrs.	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
Variety	Type									
<b>46A65</b>	<b>conventional</b>	<b>100</b>	<b>100</b>	<b>[6]</b>	<b>100</b>	<b>100</b>	<b>[13]</b>	<b>100</b>	<b>100</b>	<b>[19]</b>
1896 *	Roundup Ready®	88	88	[1]	98	98	[1]	93	93	[2]
3235	Roundup Ready®	81	93	[3]	96	94	[5]	89	93	[8]
9451 *	Roundup Ready®	93	93	[1]	111	111	[1]	102	102	[2]
9550	Roundup Ready®	102	106	[2]	96	93	[2]	99	99	[4]
33-95 *	Roundup Ready®	97	97	[1]	104	104	[1]	101	101	[2]
34-55	Roundup Ready®	91	96	[3]	99	99	[5]	95	98	[8]
43A56	Roundup Ready®	100	101	[2]	95	97	[2]	97	99	[4]
45H21	Roundup Ready®	103	110	[2]	103	104	[3]	103	106	[5]
45H24 *	Roundup Ready®	103	103	[1]	114	114	[1]	108	108	[2]
46H23	Roundup Ready®	113	114	[3]	105	102	[3]	109	108	[6]
225RR (AV 9225)	Roundup Ready®	98	99	[3]	97	99	[5]	97	99	[8]
AV 9525 (Hyola 525RR) *	Roundup Ready®	105	105	[1]	99	99	[1]	102	102	[2]
Canterra™ 1841	Roundup Ready®	89	99	[2]	106	111	[3]	98	106	[5]
Fortune RR	Roundup Ready®	82	92	[2]	102	98	[2]	92	95	[4]
LBD422RR	Roundup Ready®	84	102	[2]	94	98	[2]	89	100	[4]
LBD449RR	Roundup Ready®	80	88	[3]	84	93	[3]	82	91	[6]
LBD588RR	Roundup Ready®	76	80	[2]	94	96	[2]	85	88	[4]
LBD612RR	Roundup Ready®	99	99	[1]	95	100	[2]	97	99	[3]
LBD644RR	Roundup Ready®	91	105	[2]	96	102	[2]	93	103	[4]
SP Banner	Roundup Ready®	108	105	[2]	102	97	[3]	105	100	[5]
SW 6802 *	Roundup Ready®	98	98	[1]	99	99	[1]	99	99	[2]
InVigor® 2663	LibertyLink®	90	97	[3]	112	112	[5]	101	106	[8]
InVigor® 2733	LibertyLink®	103	95	[2]	103	109	[3]	103	103	[5]
InVigor® 5020	LibertyLink®	132	139	[2]	113	116	[2]	123	128	[4]
InVigor® 5030	LibertyLink®	109	109	[2]	121	119	[2]	115	114	[4]
InVigor® 5070	LibertyLink®	120	120	[1]	128	128	[1]	124	124	[4]
InVigor® 5108 *	LibertyLink®	68	68	[1]	97	97	[1]	83	83	[2]
45H72	Clearfield®	104	104	[1]	101	101	[1]	103	103	[4]
46A76	Clearfield®	95	95	[2]	105	101	[3]	100	99	[5]
46H70 *	Clearfield®	90	90	[1]	103	103	[1]	96	96	[2]
289CL (AV 9289) *	Clearfield®	94	94	[1]	88	94	[2]	91	94	[3]
AV 9618 (618 CL) *	Clearfield®	91	91	[1]	96	96	[1]	94	94	[2]
Cougar CL	Clearfield®	105	100	[2]	91	94	[2]	98	97	[4]
SP Deliver CL *	Clearfield®	97	97	[1]	92	92	[1]	94	94	[2]
SP Distinction CL *	Clearfield®	67	67	[1]	83	83	[1]	75	75	[2]

**46A65 - check variety**

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

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

Canterra™ is a trademark of Canterra Seeds

InVigor® is a registered trademark of Bayer CropScience

**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 for the three individual napus canola trials per site were as follows: DC = 11.36%, 13.79%, 8.82% FSJ = 6.9%, 8.37%, 6.12%

# Argentine Canola (herbicide tolerant)

Yield as % of 46A65

FINAL REPORT	Variety	Type	Dawson Creek		Fort St. John		B.C. Peace	
			2000-2003		2000-2003		2000-2003	
			Avg. (%)	Stn. Yrs.	Avg. (%)	Stn. Yrs.	Avg. (%)	Stn. Yrs.
			<u>Varieties not tested in 2004 ( Averages 1997-2003 )</u>				<u>Last Year Tested</u>	
45A55*	Roundup Ready®	97	[1]	92	[2]	( 2002 )	95	[3]
45H22 *	Roundup Ready®			96	[1]	( 2002 )	96	[1]
512RR *	Roundup Ready®	99	[1]	111	[1]	( 2003 )	105	[2]
AV9505 (505RR *)	Roundup Ready®			123	[1]	( 2002 )	123	[1]
Canterra 1867*	Roundup Ready®	90	[1]	101	[2]	( 2002 )	96	[3]
Canterra™ 1812*	Roundup Ready®	97	[1]	109	[2]	( 2002 )	103	[3]
Canterra™ 1849*	Roundup Ready®			92	[1]	( 2002 )	92	[1]
Canterra™ 1862 *	Roundup Ready®	107	[1]	99	[2]	( 2003 )	103	[3]
Conquest	Roundup Ready®	90	[1]	98	[3]	( 2002 )	94	[4]
DeKalb® 35-85 *	Roundup Ready®			112	[1]	( 2002 )	112	[1]
DS-Roughrider*	Roundup Ready®	90	[1]	100	[2]	( 2002 )	95	[3]
Heritage*	Roundup Ready®	89	[1]	92	[1]	( 2001 )	90	[2]
Hyola® 454RR*	Roundup Ready®	91	[1]	104	[1]	( 2001 )	98	[2]
IMC106RR *	Roundup Ready®	94	[1]	91	[1]	( 2001 )	93	[2]
IMC109RR *	Roundup Ready®	93	[1]	91	[2]	( 2003 )	92	[3]
IMC208RR *	Roundup Ready®	81	[1]	78	[2]	( 2003 )	79	[3]
Kelsey *	Roundup Ready®	98	[1]	79	[2]	( 2002 )	88	[3]
LBD561RR*	Roundup Ready®	96	[1]	98	[2]	( 2002 )	97	[3]
Prairie 715RR *	Roundup Ready®			95	[1]	( 2002 )	95	[1]
Prairie 719RR *	Roundup Ready®	104	[1]	102	[1]	( 2003 )	103	[2]
RR Champion *	Roundup Ready®	91	[1]	98	[1]	( 2001 )	94	[2]
SP Admirable RR *	Roundup Ready®	103	[1]	112	[2]	( 2002 )	107	[3]
SP Bucky *	Roundup Ready®			109	[1]	( 2002 )	109	[1]
SP Canwood *	Roundup Ready®	98	[1]	93	[1]	( 2003 )	96	[2]
SW ARROW	Roundup Ready®	100	[1]	103	[4]	( 2003 )	102	[5]
SW GladiatoRR	Roundup Ready®	95	[2]	104	[3]	( 2003 )	99	[5]
SW RazoR	Roundup Ready®	94	[1]	100	[3]	( 2002 )	97	[4]
SW RideR	Roundup Ready®	99	[2]	104	[4]	( 2003 )	101	[6]
v1010 *	Roundup Ready®	100	[1]	99	[1]	( 2003 )	99	[2]
InVigor® 2573	LibertyLink®	101	[2]	115	[4]	( 2003 )	108	[6]
InVigor® 5003 *	LibertyLink®	104	[1]	121	[1]	( 2003 )	112	[2]
243 CL *	Clearfield®	96	[1]	108	[2]	( 2002 )	102	[3]
45A71 *	Clearfield®			85	[1]	( 2002 )	85	[1]
6045CL *	Clearfield®	93	[1]	94	[1]	( 2003 )	93	[2]
Canterra™ 1604 CL *	Clearfield®			114	[1]	( 2002 )	114	[1]

### 46A65 - check variety

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

Roundup Ready® is a registered trademark of Monsanto Canada Inc.  
 LibertyLink® is a registered trademark of Bayer CropScience  
 Navigator/Compas® is a registered trademark of Bayer CropScience

Clearfield® is a registered trademark of BASF  
 Canterra™ is a trademark of Canterra Seeds  
 Deklab® is a registered trademark of DeKlab Genetics Corporation  
 Hyola® is a registered trademark of Advanta Canada Inc.

# Argentine Canola

## Variety Descriptions

### FINAL REPORT

Variety	Type	Herbicide Tolerance	B.C. Peace Avg. data		Alberta Agdex 100/32 data <sup>1</sup>	Prairie-Wide Testing Data	Distributor
			1996-2004**	2003-2004			
			Days to Mature	Days to Swathing			
1896 *	HYB	Roundup Ready®	125	109		R	Canterra
■ 3235	OP	Roundup Ready®	122	110	G	MR <sup>1</sup>	Monsanto
9451 *	SYN	Roundup Ready®	126	111		MR	Agricore United / Proven
9550	OP	Roundup Ready®	121	109		R	Agricore United / Proven
■ 33-95 *	OP	Roundup Ready®	126	112		R	Monsanto
■ 34-55	OP	Roundup Ready®	126	115	VG	MR	Monsanto
■ 43A56	OP	Roundup Ready®	111	101		MR	Agricore United / Proven
45H21	HYB	Roundup Ready®	119	108	EX	R	Agricore United / Proven
45H24 *	HYB	Roundup Ready®	120	108		R	Agricore United / Proven
45H72 *	HYB	Clearfield®	125	112		R	Agricore United / Proven
■ 46A65	OP	(Conventional)	120	106	G	R	Agricore United / Proven
■ 46A76	OP	Clearfield®	127	115	EX	R	Agricore United / Proven
46H02	HYB	(Conventional)	122	110	VG	R	Agricore United / Proven
46H23	HYB	Roundup Ready®	121	111		R	Agricore United / Proven
46H70 *	HYB	Clearfield®	127	112		R	Agricore United / Proven
■ 225RR (AV 9225)	OP	Roundup Ready®	122	108	EX	MR <sup>1</sup>	Advanta
■ 289CL (AV 9289)	HYB	Clearfield®	126	112		R	Advanta
AV 9525 (Hyola 525RR) *	HYB	Roundup Ready®	122	109		--	Advanta
AV 9618 (618 CL) *	HYB	Clearfield®	122	107		--	Advanta
Canterra™ 1841	HYB	Roundup Ready®	125	111	EX	R <sup>1</sup>	Canterra
■ Cougar CL	OP	Clearfield®	123	111		R	Sask Wheat Pool
Fortune RR	OP	Roundup Ready®	122	110		R	Secan
InVigor® 2663	HYB	LibertyLink®	122	106	VG	R <sup>1</sup>	Bayer CropScience
InVigor® 2733	HYB	LibertyLink®	121	105	VG	MR <sup>1</sup>	Bayer CropScience
InVigor® 5020	HYB	LibertyLink®	118	107		R	Bayer CropScience
InVigor® 5030	HYB	LibertyLink®	120	110		R	Bayer CropScience
InVigor® 5070 *	HYB	LibertyLink®	124	110		R	Bayer CropScience
InVigor® 5108 *	HYB	LibertyLink®	121	107		--	Bayer CropScience
LBD422RR	OP	Roundup Ready®	122	110		--	Prairie Seeds
LBD449RR	OP	Roundup Ready®	120	108	EX	R <sup>1</sup>	Brett-Young
LBD588RR	OP	Roundup Ready®	124	112		--	Brett-Young
LBD612RR	OP	Roundup Ready®	127	109	VG	--	Brett-Young
LBD644RR	OP	Roundup Ready®	121	107		--	Brett-Young
■ Peace	OP	(Conventional)	113	100	VG	MR <sup>1</sup>	Sask Wheat Pool
■ SP Banner	OP	Roundup Ready®	118	109	EX	R <sup>1</sup>	Sask Wheat Pool
■ SP Deliver CL *	OP	Clearfield®	124	111		MR	Sask Wheat Pool
■ SP Distinction CL *	OP	Clearfield®	144	131		MR	Sask Wheat Pool
SW 6802 *	SYN	Roundup Ready®	124	111		--	SW Seed Ltd. (ProMark)

1996-2004\*\* = averaged data period for conventional types, 1998-2004 for herbicide tolerant types.

EX = excellent, VG = very good, G = good, F = fair, P = poor  
 R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible  
 OP = open pollinated, SYN = synthetic, HYB = hybrid

#### ■ 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

Canterra™ is a trademark of Canterra Seeds

InVigor® is a registered trademark of Bayer CropScience

Navigator/Compas® is a reg. trademark of Bayer CropScience

Deklab® is a registered trademark of DeKlab Genetics Corporation

Hycore® is a registered trademark of Agriprogress Inc.

Hyola® is a registered trademark of Advanta Canada Inc.

<sup>1</sup> = such footnoted data is from Alberta Agdex 100/32

Note that the *days to maturity* data, (a date that describes when seed at the top of the plant is changing colour) is composed of multiple years; however, the *days to swathing* data (a date defined by the Canola Council of Canada's definition for swathing) is created from only 2003 & 2004 data from two sites or basically four station years. Therefore, with the exception of newer entries, it is not completely fair to subtract the two values to see how many days it took to completely seed ripen until more *swathing* data is collected.

# Argentine Canola

# Variety Descriptions

# FINAL REPORT

Variety	Type	Herbicide Tolerance	B.C.Peace Avg.		Data from Alberta			Distributor	
			1996-2003**		2003	Agdex 100/32			
			Days to Mature	Height cm	Days to Swathing	Straw Strength	Blackleg Tolerance		
Varieties not tested in 2004 ( Averages 1996-2003 ** )									
■ 243 CL *	OP	Clearfield®	135	88			EX	3	Advanta
■ 295 BX*	OP	Navigator/Compas®	125	122			G	3	Bonis & Co.
■ 3311*	OP	(conventional)	123	118			G	1	Monsanto
■ 45A55*	OP	Roundup Ready®	131	85			G	1	Agricore United / Proven
■ 45A71 *	OP	Clearfield®	115	95			G	3	Agricore United / Proven
45H22 *	HYB	Roundup Ready®	125	92					Agricore United / Proven
■ 6045CL *	OP	Clearfield®	118	100	110				Brett-Young
■ Armour BX*	OP	Navigator/Compas®	123	120			G	3	Bonis & Co.
AV 9505 (505RR)*	HYB	Roundup Ready®	133	102					Advanta
AV 9512 (512RR)*	HYB	Roundup Ready®	119	107	109				Advanta
■ BIANCA II*	OP	(conventional)	136	88			EX	1	Agriprogress
Canterra 1867*	OP	Roundup Ready®	128	106			VG	3	Canterra
Canterra™ 1492 *	HYB	(conventional)	125	118			VG	3	Canterra
■ Canterra™ 1604 CL*	OP	Clearfield®	138	90			EX	2	Canterra
Canterra™ 1812*	SYN	Roundup Ready®	132	97			EX	2	Canterra
Canterra™ 1849 *	OP	Roundup Ready®	126	82			VG	1	Canterra
■ Canterra™ 1862*	OP	Roundup Ready®	123	84	108		VG	2	Canterra
■ Cartier BX*	OP	Navigator/Compas®	123	121			G	2	Bonis & Co.
Conquest	OP	Roundup Ready®	125	118			EX	1	Agricore United / Proven
■ DeKalb® 35-85*	OP	Roundup Ready®	128	92			EX	1	Monsanto
■ DS-Roughrider*	OP	Roundup Ready®	130	112			EX	3	SeCan
Heritage*	OP	Roundup Ready®	127	124			VG	2	IMC Cargill
■ Hi-Q*	OP	(conventional)	126	121			EX	1	Agricore United / Proven
Hycore® 601*	HYB	(conventional)	131	129			VG	2	Agricore United / Proven
Hyola® 454RR*	HYB	Roundup Ready®	126	127			VG	2	Advanta
IMC 105*	OP	(conventional)	133				VG	3	IMC Cargill
IMC106RR *	OP	Roundup Ready®	134				VG	2	IMC Cargill
IMC109RR ^*	OP	Roundup Ready®	126	94	110		VG	1	Cargill Specialty Oils
IMC208RR ^*	OP	Roundup Ready®	125	93	109		VG	1	Cargill Specialty Oils
InVigor® 2573	HYB	LibertyLink®	125	109	100		VG	1	Bayer CropScience
InVigor® 5003 *	HYB	LibertyLink®	106	86	97				Bayer CropScience
Kelsey *	OP	Roundup Ready®	124	103			EX	2	Agricore United / Proven
LBD279 *	OP	(conventional)	135				VG	2	LiBred
LBD561RR*	OP	Roundup Ready®	130	92			VG	2	LiBred
LBD612RR*	OP	Roundup Ready®	128	93			VG	2	LiBred
■ Legacy	OP	(Conventional)	123	107	114		G	3	Bonis & Co.
■ LoLinda*	OP	(conventional)	138	85			VG	1	Bonis & Co.
MillenniUM 03*	HEAR	(conventional)	128	80					CanAmera Foods
Prairie 715RR*		Roundup Ready®	125	95			VG	1	Prairie Seeds
Prairie 719RR *	OP	Roundup Ready®	114	102	107				Prairie Seeds
■ Q2	OP	(conventional)	126	101			EX	1	Agricore United / Proven
■ Renegade BX *	OP	Navigator/Compas®	134				VG	2	Bonis & Co.
■ RR Champion *	OP	Roundup Ready®	134				VG	2	Monsanto
■ Skyhawk	OP	(conventional)	125	104			G	1	Seed-Link Inc.
SP Admirable RR*	SYN	Roundup Ready®	133	93			VG	2	Sask Wheat Pool
SP Armada*	OP	(conventional)	131	88			VG	2	Sask Wheat Pool
■ SP Bucky *		Roundup Ready®	131	83			VG	1	Sask Wheat Pool
■ SP Canwood *	OP	Roundup Ready®	117	93	108				Sask Wheat Pool
SW 5001*	HYB	(conventional)	126	130			VG	1	Bonis & Co.
■ SW ARROW	OP	Roundup Ready®	120	102	108		G	3	Bonis & Co.
SW GladiatoRR	SYN	Roundup Ready®	121	92	100		VG	2	Bonis & Co.
SW RazoR	SYN	Roundup Ready®	125	106			VG	2	Bonis & Co.
SW RideR	SYN	Roundup Ready®	124	107	111		VG	3	Agricore United / Proven
SW WaRRior *	OP	Roundup Ready	117	106			VG	2	Bonis & Co.
Thunder*	OP	(conventional)	126	126			G	2	DSV Canada
v1010 *	HYB	Roundup Ready®	120	106	111				Cargill Specialty Oils
Y0276 *	HYB	(Conventional)	118	106	110				Advanta
■ Zodiac BX*	OP	Navigator/Compas®	127	127			G	2	Bonis & Co.

1996-2003\*\* = averaged data period for conventional types, 1998-2003 for herbicide tolerant types.

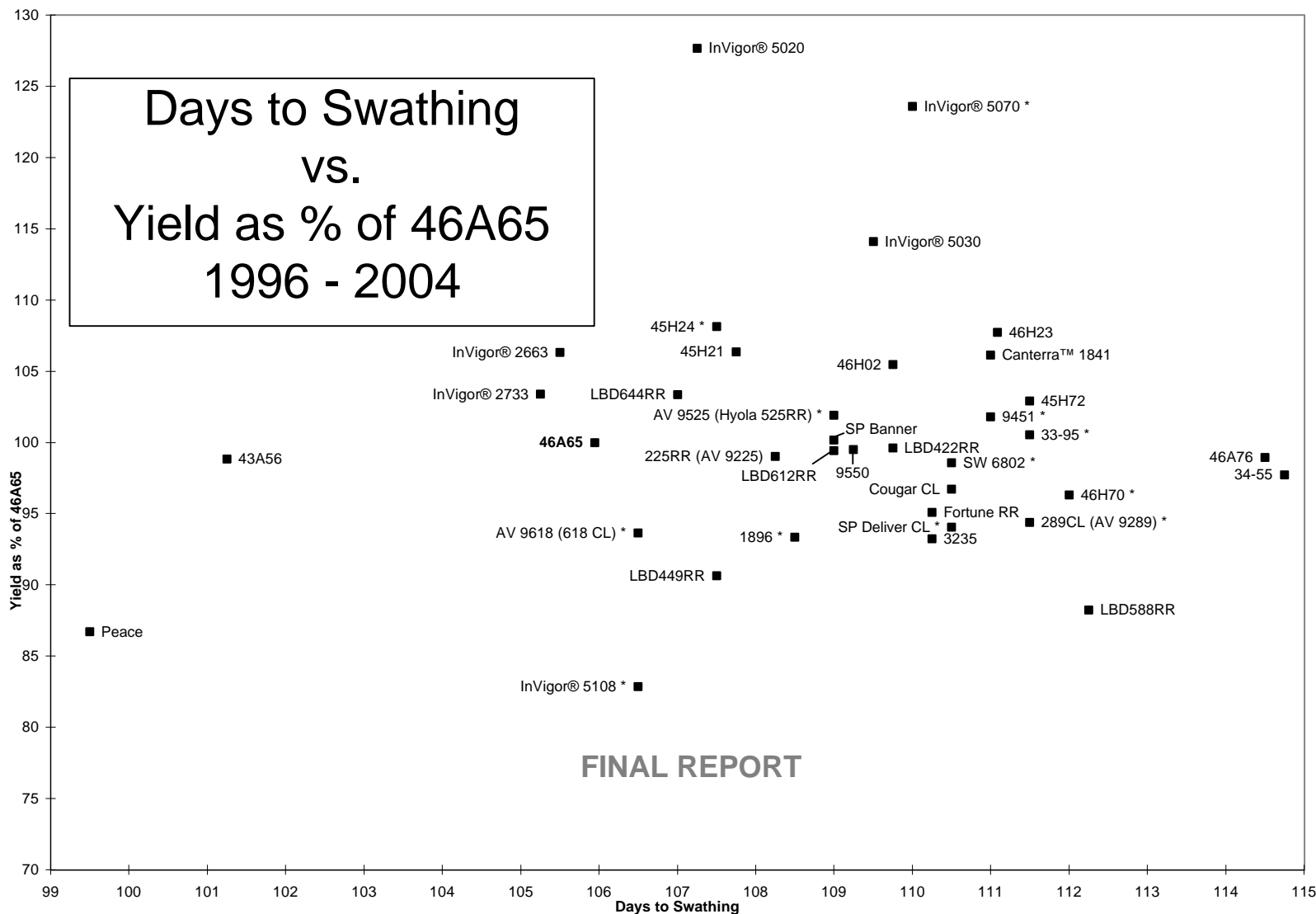
See bottom of page 26 for trademarks.

OP=open pollinated, SYN=synthetic, HYB=hybrid, HEAR=high erucic acid  
 EX = excellent, VG = very good, G = good, F = fair, P = poor

Older data uses Alberta system: 1 = tolerant, 2 = moderately tolerant, 3 = moderately susceptible, 4 = susceptible, 5 = highly susceptible

Argentine Canola

B.C. Peace River - Variety Performance 1996-2004



FINAL REPORT

\* First Year tested, limited data available.

Canterra™ is a trademark of Canterra Seeds.

InVigor® is a registered trademark of Bayer Crop Science

# Field Pea (Yellow Seed) Yield as % of Carrera \*\*

Variety	***Designated Powdery Mildew Resistant	Dawson Creek				Fort St. John				B.C. Peace			
		2004 Yield		1999-2004		2004 Yield		1999-2004		2004	1999-2004		
		bus /	% of	Avg.	Stn.	bus /	% of	Avg.	Stn.	Avg.	Avg.	Stn.	
		acre	check	(%)	Yrs.	acre	check	(%)	Yrs.	(%)	(%)	Yrs.	
Carneval	F	49 a-e	140	109	[4]	90 a	98	88	[5]	119	98	[9]	
<b>Carrera</b>	<b>P</b>	<b>35 g</b>	<b>100</b>	<b>100</b>	<b>[5]</b>	<b>92 a</b>	<b>100</b>	<b>100</b>	<b>[6]</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	
CDC Bronco	VG	54 a	153	126	[2]	85 a	93	88	[2]	123	107	[4]	
CDC Golden	VG	47 a-f	133	109	[2]	89 a	96	92	[2]	115	100	[4]	
<i>CDC Handel *</i>	VG	43 def	121	121	[1]	93 a	101	101	[1]	111	111	[2]	
CDC Minuet	VG	53 ab	151	104	[3]	92 a	100	88	[4]	125	96	[7]	
<i>CDC Mozart *</i>	VG	40 fg	115	115	[1]	88 a	95	95	[1]	105	105	[2]	
Cutlass	VG	46 b-f	131	114	[2]	84 a	91	92	[2]	111	103	[4]	
DELTA	P	51 abc	144	100	[5]	84 a	92	95	[6]	118	98	[11]	
DS-Admiral	VG	49 a-e	139	100	[4]	94 a	102	96	[4]	121	98	[8]	
Eclipse	VG	50 a-d	142	106	[4]	82 a	89	93	[5]	116	99	[9]	
<i>Miser *</i>	VG	44 c-f	125	125	[1]	94 a	102	102	[1]	113	113	[2]	
<i>SW Cabot *</i>	P	42 efg	120	120	[1]	90 a	97	97	[1]	109	109	[2]	
<i>SW Carousel *</i>	VG	49 a-e	139	139	[1]	85 a	93	93	[1]	116	116	[2]	
SW CIRCUS	P	42 efg	119	100	[3]	86 a	93	92	[3]	106	96	[6]	
<i>SW MIDAS *</i>	VG	50 abc	143	143	[1]	87 a	95	95	[1]	119	119	[2]	
Swing	P	42 efg	119	96	[5]	85 a	93	95	[6]	106	96	[11]	
Topeka	VG	41 fg	117	97	[4]	89 a	97	85	[4]	107	91	[8]	
<i>Tudor *</i>	VG	46 b-f	130	130	[1]	88 a	96	96	[1]	113	113	[2]	
LSD (P=.05) =		7.44				15.71							
CV value (%) =		11.42				12.6							

Varieties not tested in 2004 (Averages 1999-2003)				Last Year Tested			
Alfetta	P		75 [1]	100 [1]	(2002)	88 [2]	
Cobra	-		96 [2]	95 [3]	(2001)	96 [5]	
<i>CROMA *</i>	P		91 [1]	96 [1]	(2002)	93 [2]	
DS-Stalworth	VG		88 [3]	92 [4]	(2003)	90 [7]	
Integra	P		97 [2]	95 [3]	(2001)	96 [5]	
MARIBU	-		87 [2]	97 [2]	(2002)	92 [4]	
MIAMI	P		94 [2]	95 [3]	(2001)	94 [5]	
NICOLE	P		94 [2]	92 [3]	(2001)	93 [5]	
SW BRAVO	P		83 [4]	86 [5]	(2003)	85 [9]	
SW CAPRI	P		84 [2]	95 [2]	(2003)	89 [4]	
SW SALUTE	VG		92 [3]	91 [3]	(2003)	92 [6]	

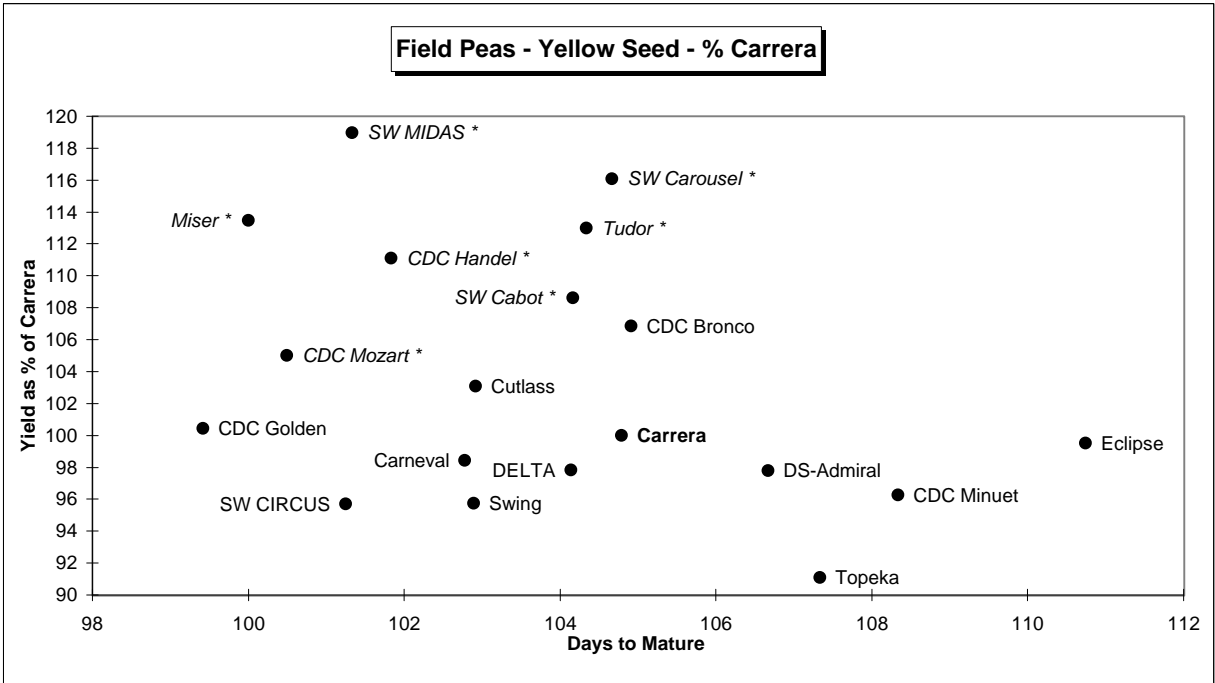
Means followed by the same letter do not significantly differ (P=.05, LSD) \* first year tested, very limited data available.

**\*\*New check variety as of 2001.** Historical data on this page has been updated to reflect this change.

See Page 30 for more extensive listing of varieties no longer tested as compared against Carneval.

\*\*\*Powdery Mildew resistance VG=Very Good, F=Fair, P=Poor (data: SEED MANITOBA 2005)

**Carrera - check variety**



# Field Pea (Green Seed)

Yield as % of Nitouche \*\*

Variety	***Designated Powdery Mildew Resistant	Dawson Creek			Fort St. John				B.C. Peace		
		2004 Yield		1999-2004	2004 Yield		1999-2004		2004	1999-2004	
		bus /	% of	Avg. Stn.	bus /	% of	Avg. Stn.	Avg.	Avg.	Stn.	
		acre	check	(%) Yrs.	acre	check	(%) Yrs.	(%)	(%)	Yrs.	
Camry *	VG	52 ab	112	112 [1]	76 a-d	111	111 [1]	111	111	[2]	
Carneval (yellow pea)	F	58 a	124	108 [4]	84 a	123	113 [4]	123	110	[8]	
CDC Striker	P	46 bc	99	100 [2]	61 f	89	94 [2]	94	97	[4]	
COOPER *	VG	51 ab	109	109 [1]	72 cde	104	104 [1]	107	107	[2]	
Nessie	P	47 bc	100	105 [2]	74 b-e	107	105 [2]	104	105	[4]	
<b>Nitouche</b>	<b>P</b>	<b>47 bc</b>	<b>100</b>	<b>100 [5]</b>	<b>69 def</b>	<b>100</b>	<b>100 [6]</b>	<b>100</b>	<b>100</b>	<b>[11]</b>	
Stratus	VG	53 ab	112	115 [4]	82 ab	120	90 [4]	116	102	[8]	
TOLEDO	P	42 c	89	94 [5]	81 abc	118	99 [6]	103	97	[11]	
Vortex *	P	45 bc	96	96 [1]	65 ef	95	95 [1]	96	96	[2]	
LSD (P=.05) =		7.86			10.06						
CV value (%) =		11			9.34						
<u>Most recent varieties not tested in 2004 ( Averages 1999-2003 )</u>											
					<u>Last Year Tested</u>						
BLUEBIRD	-			88 [2]			85 [2]	( 2002 )	86	[4]	
CDC Montero	VG			63 [1]			72 [1]	( 2001 )	68	[2]	
Cruiser*	P			99 [1]			107 [1]	( 2002 )	103	[2]	
DS-Dominator	-			21 [1]			52 [2]	( 2001 )	37	[3]	
Espace	P			100 [4]			110 [5]	( 2003 )	105	[9]	
Garde (FABIA )	-			110 [2]			105 [2]	( 2002 )	108	[4]	
Madoc	P			107 [2]			106 [2]	( 2003 )	106	[4]	
Millenum	P			108 [3]			109 [4]	( 2003 )	108	[7]	
SCUBA	P			88 [2]			99 [3]	( 2001 )	94	[5]	
SW PARADE	P			93 [2]			98 [3]	( 2001 )	95	[5]	
Venture	P			100 [1]			96 [2]	( 2001 )	98	[3]	

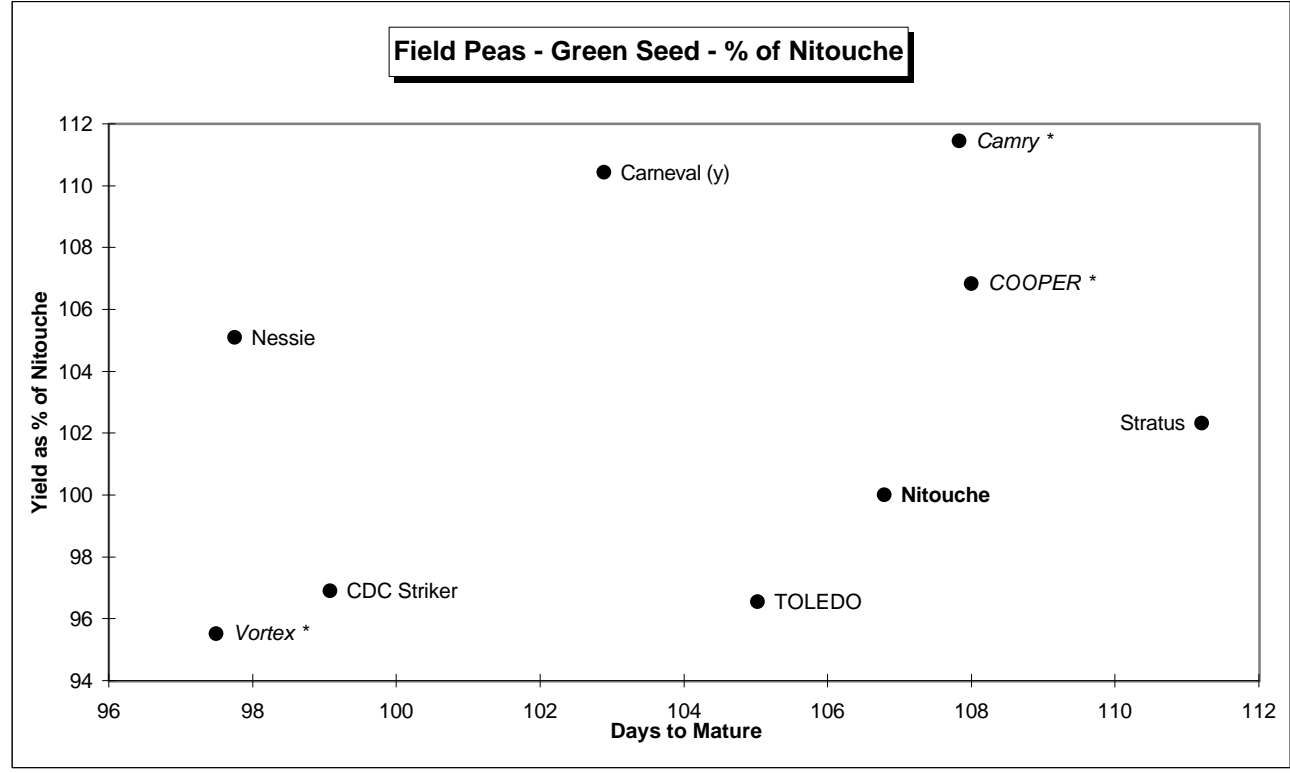
Means followed by the same letter do not significantly differ (P=.05, LSD) \* first year tested, very limited data available

**\*\*New check variety as of 2001.** Historical Data has been updated to reflect this change as of 1999.

See Page 30 for more extensive listing of varieties no longer tested as compared against Carneval.

\*\*\*Powdery Mildew resistance VG=Very Good, F=Fair, P=Poor (data: SEED MANITOBA 2005)

## Nitouche - check variety



Field Peas		Variety Descriptions					
		BC Peace Data 2001-2004					
Variety	BC Peace Averages			1997-2004	0-9 scale (0=nil)**		Distributor
	Days to Mature	Height cm	Lodging 0-9(flat)	1000 k grams	Mycos-phaerella Blight	Powdery Mildew	
<b>Yellow Seed</b>							
■ Carneval	103	74	2	236	1.0	3.2	Bonis & Co
■ <b>Carrera</b>	<b>105</b>	<b>55</b>	<b>3</b>	<b>279</b>	<b>3.8</b>	<b>4.6</b>	<b>Canseed</b>
CDC Bronco	105	77	3	256		0.0	Sask Pulse Growers
CDC Golden	99	78	4	255		0.3	Sask Pulse Growers
<i>CDC Handel *</i>	102	66	6	247		0.0	U of S
CDC Minuet	108	75	4	217	3.7	0.0	Sask Pulse Growers
<i>CDC Mozart *</i>	101	63	6	297		0.0	U of S
Cutlass	103	80	4	271		0.2	AAFRD
■ DELTA	104	65	3	261	3.5	2.7	Quality Assured
■ DS-Admiral	107	79	3	267	2.0	0.1	Agriprogress
■ Eclipse	111	74	2	272	2.8	0.3	Quality Assured
■ <i>Miser *</i>	100	64	5	240		0.0	Morden Res. Centre
■ <i>SW CABOT *</i>	104	78	3	276		7.8	SW Seed Ltd
■ <i>SW Carousel *</i>	105	81	5	271		3.4	SW Seed Ltd
■ SW CIRCUS	101	72	3	254	2.0	5.0	Bonis & Co
■ <i>SW MIDAS *</i>	101	75	3	251		0.0	Bonis & Co
■ Swing	103	66	4	262	2.8	4.8	Canseed
■ Topeka	107	60	5	288	2.8	0.4	Canterra
■ <i>Tudor *</i>	104	80	3	289		0.0	Quality Assured
<b>Green Seed</b>							
■ <i>Camry *</i>	108	68	3	301		1	Quality Assured
■ Carneval (y)	103	73	2	237	1.0	3	Bonis & Co
CDC Striker	99	78	1	244		7	Sask Pulse Growers
■ COOPER *	108	85	1	340		0	Canterra
■ Nessie	98	72	3	270		6	Bonis & Co
■ <b>Nitouche</b>	<b>107</b>	<b>74</b>	<b>2</b>	<b>282</b>	<b>3.5</b>	<b>5</b>	<b>Canseed</b>
■ Stratus	111	63	3	292	4.2	1	Canterra
■ TOLEDO	105	69	2	288	3.3	4	Canterra
<i>Vortex *</i>	98	81	5	169		5	Terramax
<u>Varieties not tested in 2004 ( Averages 1997-2003)</u>							
■ Alfetta	107	55	2	331	2.0	2.0	Quality Assured
■ BLUEBIRD (g)	114	55	3	275	3.2	0.2	Bob Park (Lacombe, AB)
CDC Montero (g)	117	76	5	206	4.0	3.0	Sask Pulse Growers
Cobra	109	68	3	240	3.7	3.0	Agriprogress
■ CROMA	107	44	3	309	2.3	5.2	Canterra
Cruiser (g)	110	59	0	248	1.7	2.5	Canterra
■ DS-Dominator (g)	120	72	2	209	3.3	0.0	Agriprogress
DS-Stalwarth	111	78	2.2	256	2.8	1.3	Agriprogress
■ Espace (g)	108	66	2.0	242	2.3	4.5	Bob Park (Lacombe, AB)
■ Garde (FABIA) (g)	118	75	1	256	2.3	4.3	Bob Park (Lacombe, AB)
■ Integra	106	68	2	278	3.0	1.7	Bob Park (Lacombe, AB)
■ Madoc (g)	104	61	0.8	289	1.0	2.9	Terramax
■ MARIBU	118	73	2	283	2.5	2.3	Bob Park (Lacombe, AB)
■ MIAMI	106	66	2	244	3.3	4.7	Advanta
■ MILLENNIUM (g)	114	54	2.1	277	3.2	3.1	Terramax
■ NICOLE	106	44	4	273	5.3	2.3	Advanta
■ SCUBA (g)	110	68	2	231	4.0	4.0	Advanta
■ SW BRAVO	108	70	1.3	267	2.6	3.6	Bonis & Co
■ SW CAPRI	102	71	0.8	236	2.3	4.0	Bonis & Co
■ SW SALUTE	108	77	3.9	247	2.7	0.0	Bonis & Co
■ SW PARADE (g)	111	64	4	203	4.0	2.7	Bonis & Co
■ Venture (g)	120	76	3	229	5.0	4.5	Johnson 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, 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.

(g) = green pea

■ Protected by Plant Breeders' Rights

\*\* 0 - 9 scale; 0 = none, 9 = 100% affected  
\* first year tested, very limited data available

# FLAX

Note: Data is unchanged from 2003 due to adverse weather conditions at harvest

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 varieties and, therefore, this information is being provided here.

Variety	Yield as % of NORLIN														Variety Descriptions Distributor	
	Dawson Creek					Fort St. John					B.C. Peace			Maturity Height (days to)		Height (cm)
	2003 Yield		2001-2003			2003 Yield		2001-2003			2003	2001-2003				
	bus / acre	% of Check	Avg. (%)	stn yrs	bus / acre	% of Check	Avg. (%)	stn yrs	Avg. (%)	Avg. (%)	stn yrs					
■ CDC Bethune	28 a	108	116	[3]	24 cd	76	93	[3]	92	105	[6]	133	59	SeCan		
■ CDC Normandy	27 a	105	103	[3]	33 a	105	105	[3]	105	104	[6]	129	58	Western Growers		
■ ^ Linola® 2047	20 c	79	89	[2]	19 d	61	72	[2]	70	80	[4]	132	55	Agricore United		
■ ^Linola® 2090 *	24 ab	95	95	[1]	24 cd	77	77	[1]	86	86	[2]	131	53	Agricore United		
■ Macbeth	22 bc	86	93	[2]	27 abc	88	96	[2]	87	94	[4]	130	55	Agricore United		
<b>NorLin</b>	<b>26 a</b>	<b>100</b>	<b>100</b>	<b>[3]</b>	<b>31 ab</b>	<b>100</b>	<b>100</b>	<b>[3]</b>	<b>100</b>	<b>100</b>	<b>[6]</b>	<b>129</b>	<b>57</b>	<b>SeCan</b>		
■ Taurus	24 ab	95	99	[3]	25 bcd	80	90	[3]	87	95	[6]	135	58	Performance		
LSD (P=.05) =	3.52				6.41											
CV value (%) =	9.72				16.48											
<b>Varieties not tested in 2003 (2001 - 2002)</b>														<b>Last Year Tested</b>		
■ AC Carnduff	101 [1]				99 [1] (2001)				100	[2]	136	63				
■ CDC Mons *	112 [1]				98 [1] (2002)				105	[2]	132	49	Quality Assured			
■ CDC Valour	98 [2]				107 [2] (2002)				102	[4]	134	54	SeCan			
■ Hanley *	112 [1]				97 [1] (2002)				105	[2]	126	52	SeCan			
■ Lightning	107 [2]				100 [2] (2002)				104	[4]	137	59	Canterra			
■ ^Linola® 1084	105 [2]				95 [2] (2002)				100	[4]	141	60	Agricore United			
■ Prairie Blue (FP 2024) *	111 [1]				90 [1] (2002)				100	[2]	139	53	Morden AAFC			

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

■ Protected by Plant Breeders' Rights

Linola® is a trademark of Commonwealth Scientific & Industrial Research Organisation

**NorLin - check variety**

\* first year tested, very limited data available

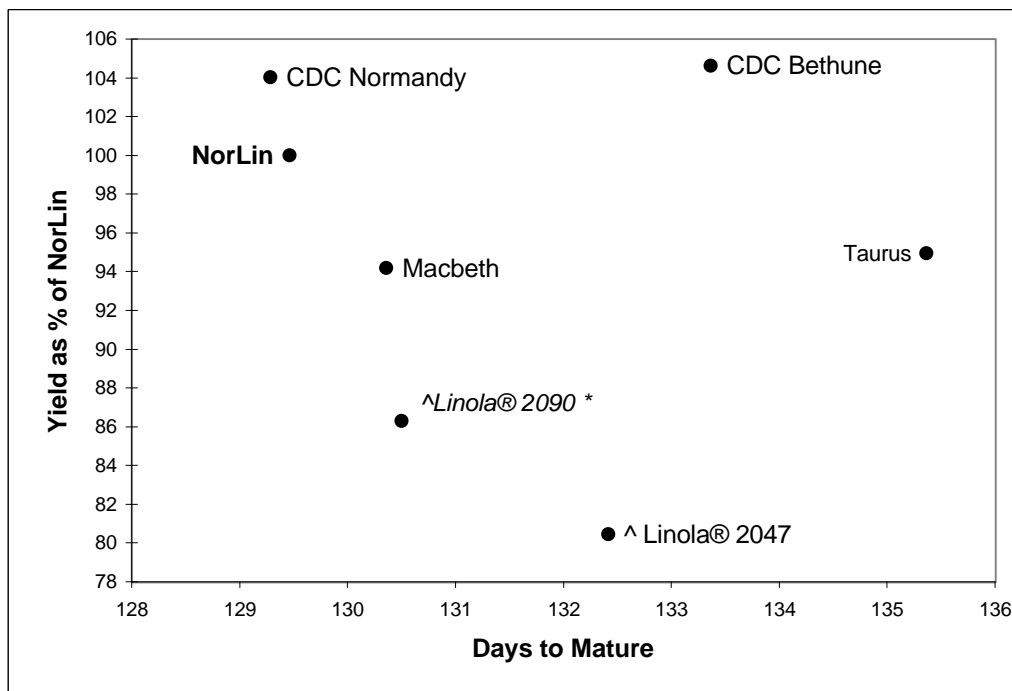
^ Solin type

# FLAX

Regional Variety

Performance

2001 - 2003



# Flax

## Where to Place Flax in Crop Rotations:

Flax is quickly becoming a stubble-sown crop. However, with better weed control options now, conventional planting will work too, as long as it is a fairly clean field to start with. In fact, flax has now often been referred to as a "clean-up crop" in rotations.

Flax does well after cereals, but research has shown that in many parts of the prairies flax can do poorly after canola or mustard crops. This is due to toxic compounds in mature canola and mustard plants and their seedling residues. The problem is most evident where straw and trash from the previous canola crop has not been adequately spread on the soil surface. Canola straw should, therefore, be spread uniformly and spring volunteer seedlings should be controlled at an early stage in order to minimize possible toxic effects. Seeding into untilled canola stubble can also minimize the problem. Flax does do well after legume crops, but *Rhizoctonia* disease can become a problem. Wheat has shown to be the most acceptable crop to follow flax, but barley also performed well on flax stubble.

## Environmental Stress and Disorders:

There are some environmental disorders that can affect your flax crop, which are associated with an imbalance of nutrient elements in the plant during environmental stress. Such disorders are often found in soils under high moisture conditions where leaf chlorosis (yellowing) may occur. Terminal bud dieback and the development of basal branching may or may not accompany the yellowing. As well, cankers on the stems can form, which are caused by very high or freezing temperatures when the crop is in early stages of growth. This latter situation may commonly be inconspicuous, but stands may be reduced by as much as 50%. Canker damage is usually most severe in thin stands on light soils, while leaf chlorosis is usually on heavier saturated soils. Placing seed and fertilizer properly, as well as picking varieties more tolerant to our Peace River spring conditions, will help prevent the situation. If either situation does occur, delaying herbicide applications during the recovery period is also very important, as herbicides will only compound the problem and delay maturity possibly beyond recoverable limits here in the Peace River region.

## Fertilizer Placement:

Flax is very sensitive to seed-placed fertilizer with even low rates sometimes causing seedling injury. Some provinces recommend a low rate of phosphate (not more than 20 kg/ha (18 lb./ac.) of P<sub>2</sub>O<sub>5</sub> - may be seed-placed), while others recommend that no fertilizer be placed with the seed. Considerable research evidence has shown that placement of phosphate 25 mm (1 inch) to the side and 25 mm (1 inch) below the seed is an effective method to supply phosphorus requirements of the flax plant. Nitrogen (N) should not be placed directly with the seed. These practices are followed by BC Grain Producers Association.

---

Adapted from *Growing Flax*, published in 2001 by the *Flax Council of Canada*, and *Alberta Agriculture Food and Rural Development "Roping the Net"* website. For most complete and up to date information on growing flax, visit the Flax Council of Canada's website at: [www.flaxcouncil.ca](http://www.flaxcouncil.ca).

## Summary of 2004 Trials

(Data used directly for the production of this report)

Regional Variety Trials	Site	Varieties	Replicates	Plots	Source
Regional 2 Row Barley	DC	17	4	68	Gayah Sieusahai - AAFR - CDC North *
Regional 6 Row Barley	DC	23	4	92	Gayah Sieusahai - AAFR - CDC North *
Regional Hulless Barley	DC	with 6 row	0	0	Gayah Sieusahai - AAFR - CDC North *
Regional Oats	DC	12	4	48	Gayah Sieusahai - AAFR - CDC North *
Regional CWRS Wheat (HRSW)	DC	25	4	100	Gayah Sieusahai - AAFR - CDC North *
Regional CPS / CWES Wheat	DC	10	4	40	Gayah Sieusahai - AAFR - CDC North *
Regional Soft White Spring Wheat	DC	4	4	16	Gayah Sieusahai - AAFR - CDC North *
Regional Triticale	DC	5	4	20	Gayah Sieusahai - AAFR - CDC North *
Prairie-Wide Rapa Canola	DC	5	4	20	Raymond Gadoua - Canola Council of Can.
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	14	4	56	BCGPA Research Department
Regional Flax	DC	10	4	40	Gayah Sieusahai - AAFR - CDC North *
Regional Green Field Pea	DC	9	4	36	Gayah Sieusahai - AAFR - CDC North *
Regional Yellow Field Pea	DC	19	4	76	Gayah Sieusahai - AAFR - CDC North *
Regional 2 Row Barley	FSJ	17	4	68	Gayah Sieusahai - AAFR - CDC North *
Regional 6 Row Barley	FSJ	23	4	92	Gayah Sieusahai - AAFR - CDC North *
Regional Hulless Barley	FSJ	with 6 row	0	0	Gayah Sieusahai - AAFR - CDC North *
Regional Oats	FSJ	12	4	48	Gayah Sieusahai - AAFR - CDC North *
Regional CWRS Wheat (HRSW)	FSJ	25	4	100	Gayah Sieusahai - AAFR - CDC North *
Regional CPS / CWES Wheat	FSJ	10	4	40	Gayah Sieusahai - AAFR - CDC North *
Regional Soft White Spring Wheat	FSJ	4	4	16	Gayah Sieusahai - AAFR - CDC North *
Regional Triticale	FSJ	5	4	20	Gayah Sieusahai - AAFR - CDC North *
Prairie-Wide Rapa Canola	FSJ	5	4	20	Raymond Gadoua - Canola Council of Can.
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	14	4	56	BCGPA Research Department
Regional Flax	FSJ	10	4	40	Gayah Sieusahai - AAFR - CDC North *
Regional Green Field Pea	FSJ	9	4	36	Gayah Sieusahai - AAFR - CDC North *
Regional Yellow Field Pea	FSJ	19	4	76	Gayah Sieusahai - AAFR - CDC North *

\* some entries sourced by BCGPA directly

(Data used for plant breeding and variety registration support, thus indirect support of this report)

Varietal Development	Site	Varieties	Replicates	Plots	Source
B-y5 Barley Pre-Co-op (Jim Helm)	DC	25	3	75	Donna Westling - AAFCDC Lacombe
2-Row Western Co-op Barley	DC	40	3	120	Bryan Harvey - U of S Malt B Prgm
6-row Western Co-op Barley	DC	23	3	69	Mario Therrien - Ag Canada Brandon
Canola Council of Canada Napus NE1 Co-op	DC	7	4	28	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS1 Co-op	DC	30	4	120	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS2 Co-op	DC	30	4	120	Raymond Gadoua - Canola Council of Can.
ADVANTA - MAT Napus trial	DC	30	4	120	Clinton Jurke - ADVANTA - Winnipeg
Early Wheat CWES-A2 (3m plots)	FSJ	36	2	72	Gavin Humphreys - AAFC Winnipeg
Early Wheat CBW-A2 (3m plots)	FSJ	30	2	60	Steve Fox - AAFC Winnipeg
Early Wheat PWDH2 (3m plots)	FSJ	80	1	80	Gavin Humphreys - AAFC Winnipeg
Early Wheat PWDH4 (3m plots)	FSJ	64	1	64	Gavin Humphreys - AAFC Winnipeg
Early Oat Lacombe Project	DC	36	3	108	Jennifer Mitchell-Fetch - AAFC Winnipeg
Regional Advanced Oat Co-op (RAT)	DC	36	3	108	Jennifer Mitchell-Fetch - AAFC Winnipeg
Western Prairie Advanced Oat (WPAT)	DC	36	3	108	Jennifer Mitchell-Fetch - AAFC Winnipeg
Field Pea Co-op "A"	FSJ	28	3	84	Dr. Dengjin Bing - MRC Morden
Field Pea Co-op "B"	FSJ	26	3	78	Dr. Dengjin Bing - MRC Morden
Early Flax CFET A	FSJ	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax CFET A	DC	36	3	108	Dr. Scott Duguid - MRC Morden

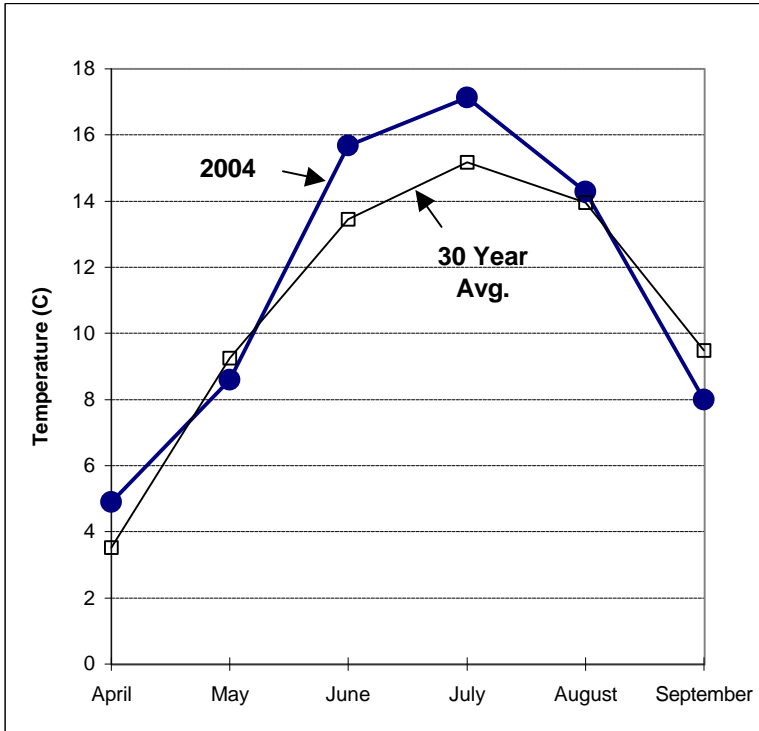
<b>Varietal Development continued ...</b>	<b>Site</b>	<b>Varieties</b>	<b>Replicates</b>	<b>Plots</b>	<b>Source</b>
Early Flax Preliminary D	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax Preliminary D	FSJ	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax Preliminary E	DC	36	3	108	Dr. Scott Duguid - MRC Morden
Early Flax Preliminary E	FSJ	36	3	108	Dr. Scott Duguid - MRC Morden
Parkland 'C' Wheat Co-op	DC	24	3	72	Alanna Olson - AAFC Beaverlodge
Parkland 'C' Wheat Co-op	FSJ	24	3	72	Alanna Olson - AAFC Beaverlodge
AGRICORE UNITED PROVEN Wheat Marketing	DC	23	3	69	Kevin McCallum-Agricore United(Calgary)
AGRICORE UNITED 2R Barley (Co-op 1)	DC	16	3	48	Jim Anderson - Agricore United (Calgary)
AGRICORE UNITED 6R Barley (Co-op 2)	DC	24	3	72	Jim Anderson - Agricore United (Calgary)
AGRICORE UNITED Oat Performance	DC	13	3	39	Jim Anderson - Agricore United (Calgary)
Soybeans (Eastern Source) A	DC	18	4	72	BCGPA
Soybeans (Eastern Source) A	FSJ	18	4	72	BCGPA
Soybeans (Peace Source) B	DC	8	4	32	BCGPA
Soybeans (Peace Source) B	FSJ	8	4	32	BCGPA
Soybeans - Inoculant Trial	FSJ	17	4	68	BCGPA
Annual Cereals as Forage	DC	12	3	36	BCGPA
Annual Cereals as Forage	FSJ	12	3	36	BCGPA

Other studies in agronomy and privately contracted work is undertaken each year which is not included in this list as it is not directly related to either variety performance or variety pre-registration testing.

**Site:** FSJ = Cameron Fines, Fort St. John  
DC = Dennis Meier, Dawson Creek

**Sources:** AAFC = Agriculture & Agrifood Canada  
AAFCDC = Agriculture & Agrifood Crop Development Centre  
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 2004



### TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April	4.9	3.5
May	8.6	9.2
June	15.7	13.5
July	17.1	15.2
August	14.3	14.0
September	8.0	9.5

**Frost Events:** May 12 -6.7      Oct 16 -2.3  
 May 16 -3.3      Oct 17 -4.0  
**May 24 -4.8**

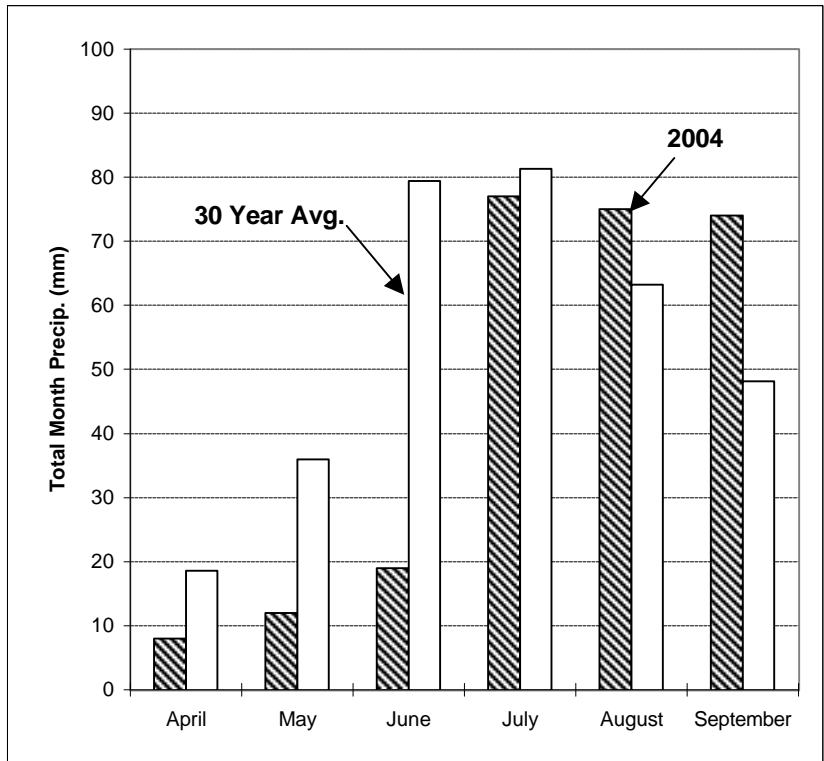
**Killing Frost (-2.2 C) Free Period: 144 days**  
 May 24 - October 16

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

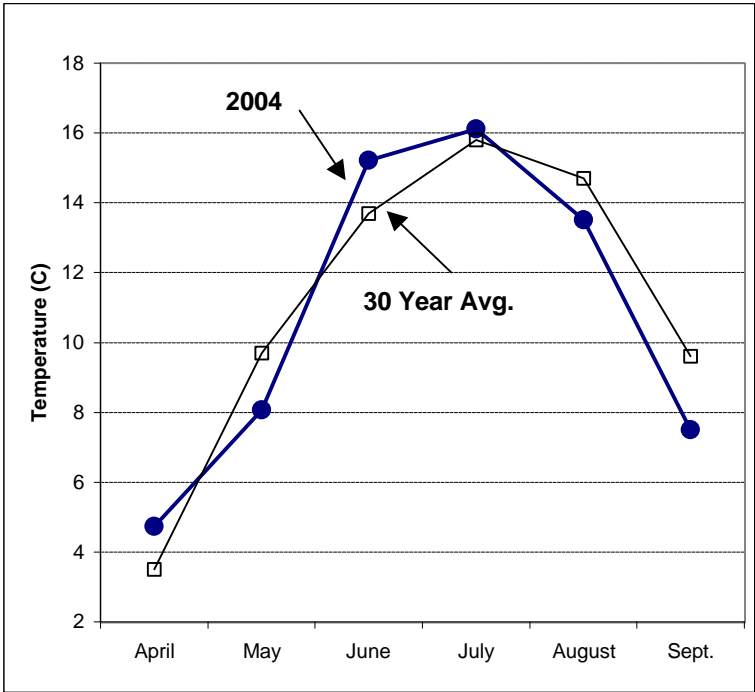
### PRECIPITATION

Month	Monthly Precipitation (mm)	Precipitation* 30 year Avg. (mm)
April	8	19
May	12	36
June	19	79
July	77	81
August	75	63
September	74	48

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



## Fort St. John Weather Information 2004



### TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April	4.7	3.5
May	8.1	9.7
June	15.2	13.7
July	16.1	15.8
August	13.5	14.7
Sept.	7.5	9.6

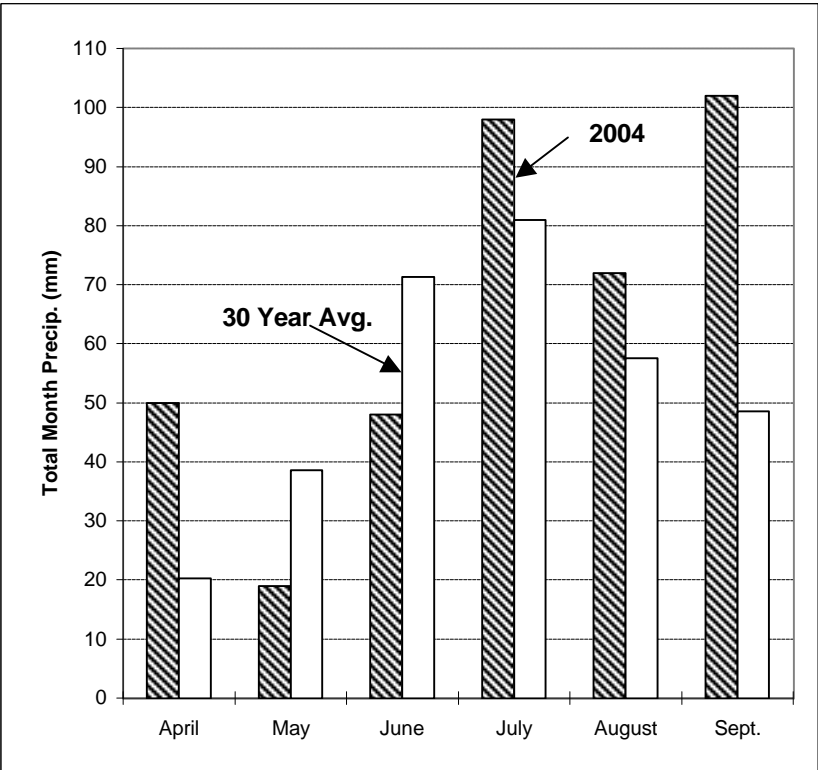
**Frost Events:** May 9 -3.3      May 24 -2.1  
 May 10 -5.3      **Sept 21 -2.2**  
 May 12 -5.5      Oct 13 -3.9

**Killing Frost (-2.2 C) Free Period: 131 days**  
 May 12 - September 21

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

### PRECIPITATION

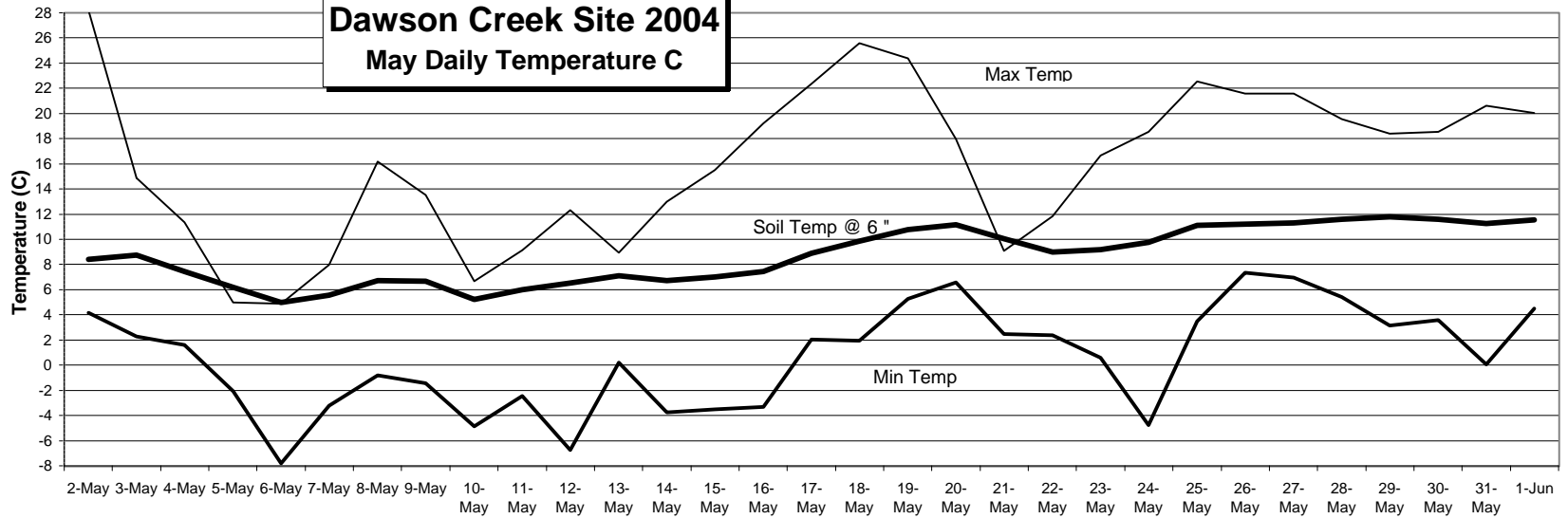
Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
April	50	20
May	19	39
June	48	71
July	98	81
August	72	58
Sept.	102	49



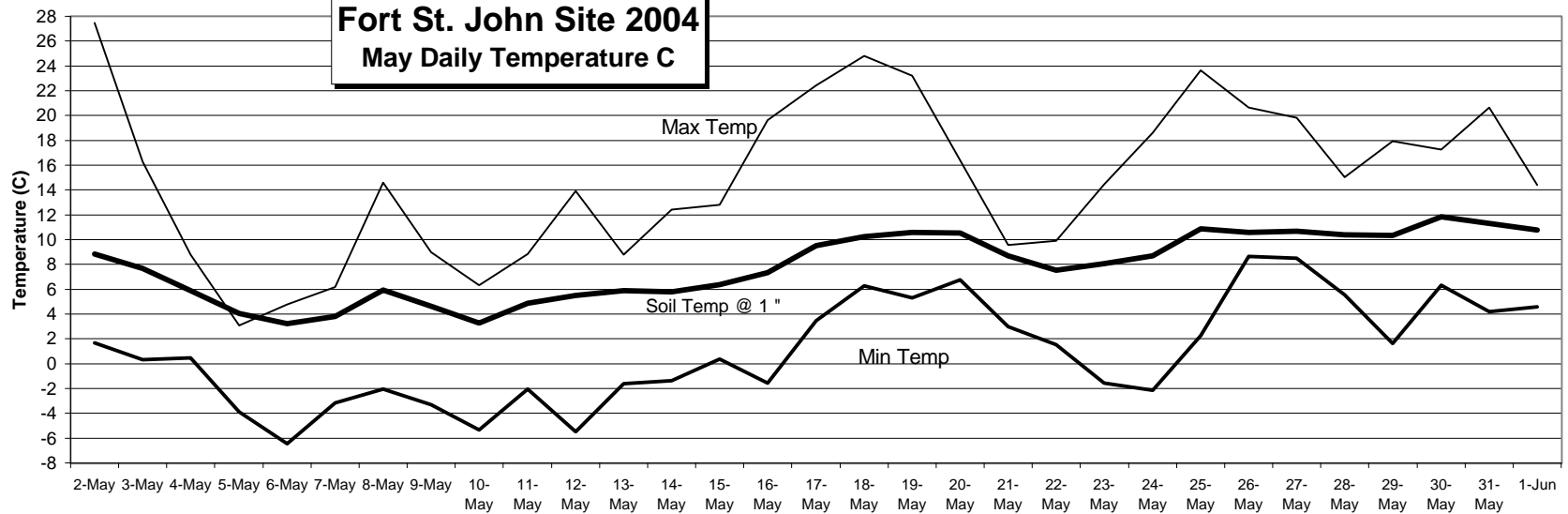
Data is provided by an on site weather station maintained by the Agriculture Risk Management Branch of the BC Ministry of Agriculture, Food and Fisheries.

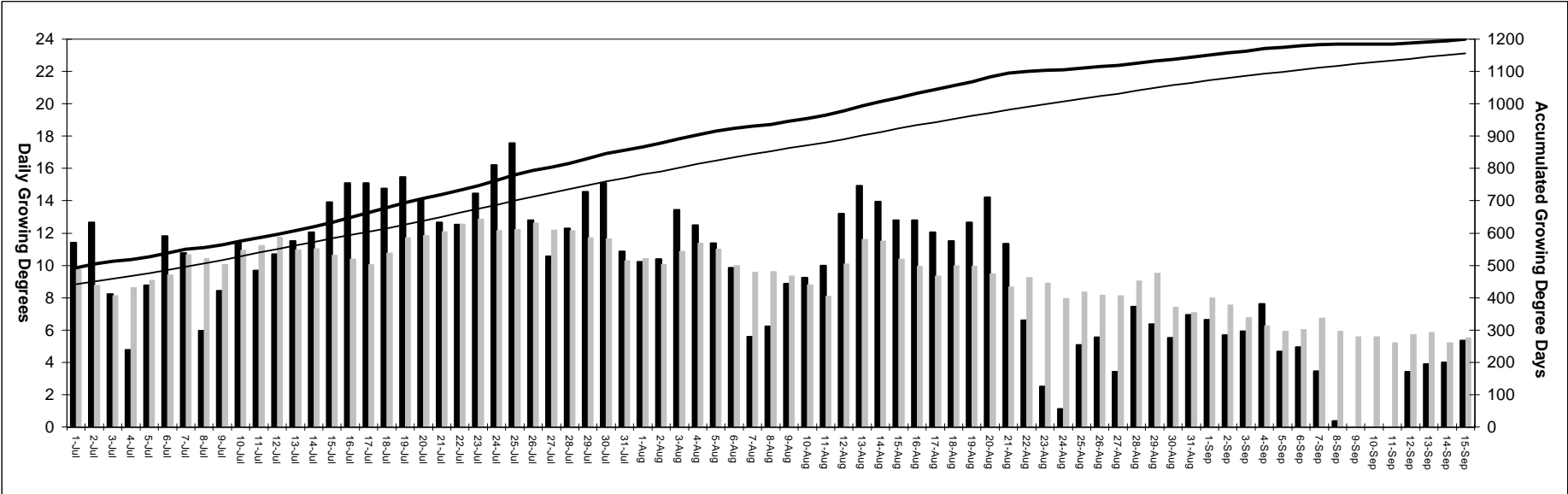
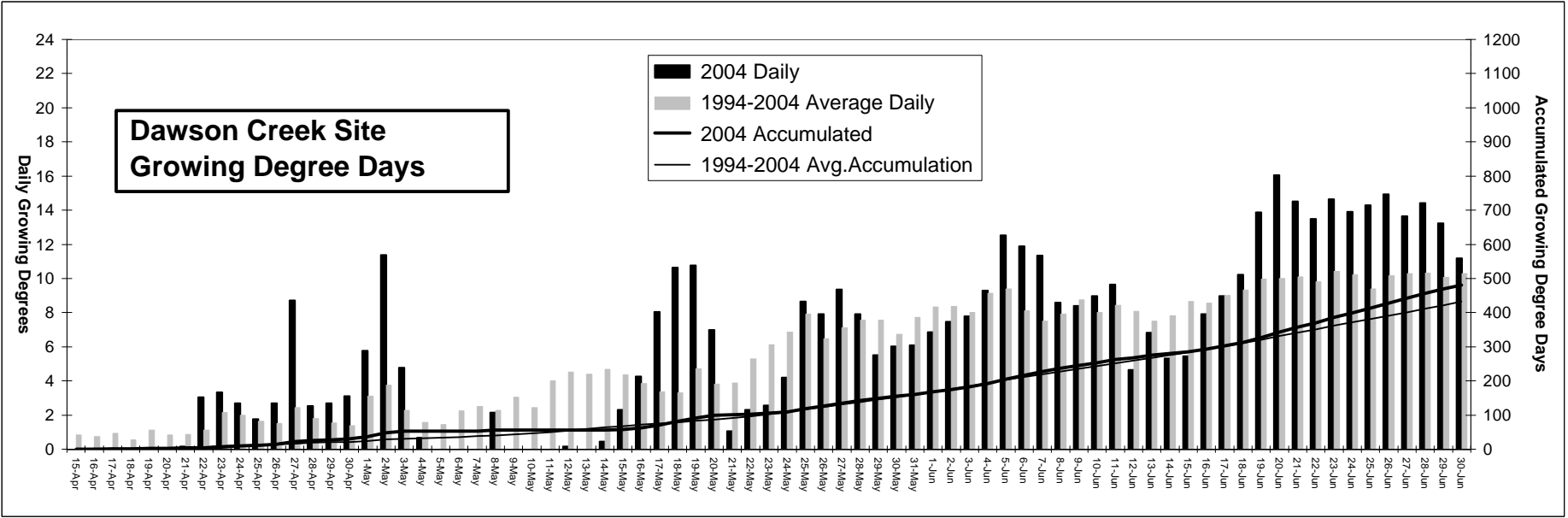


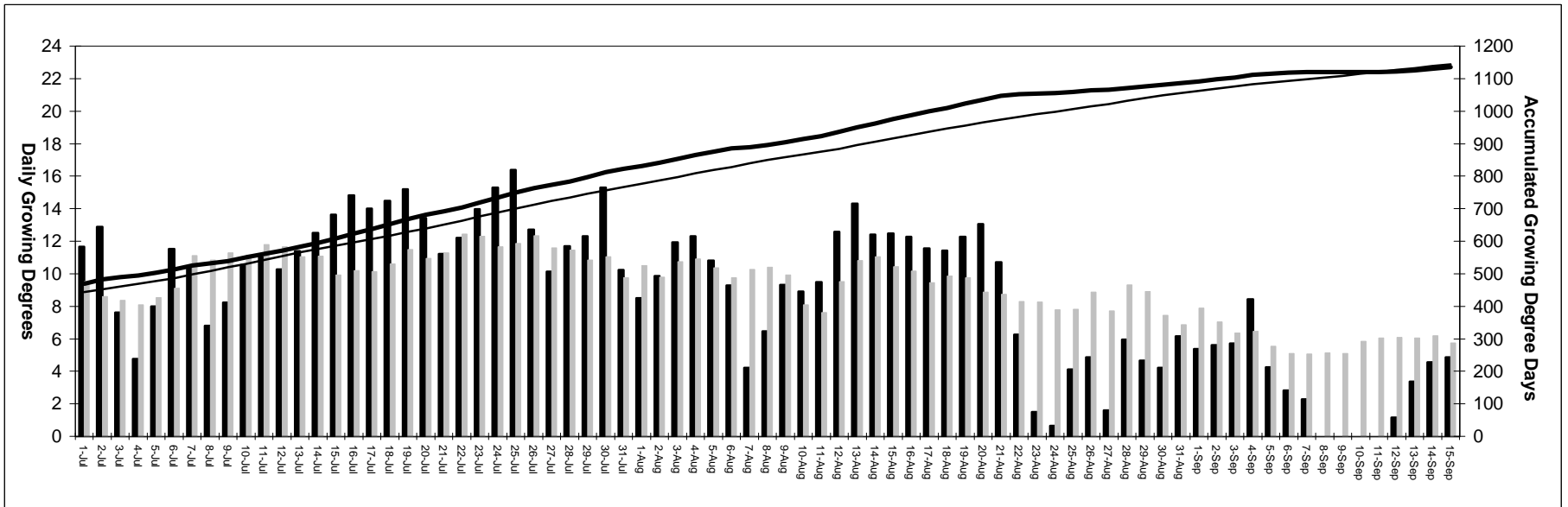
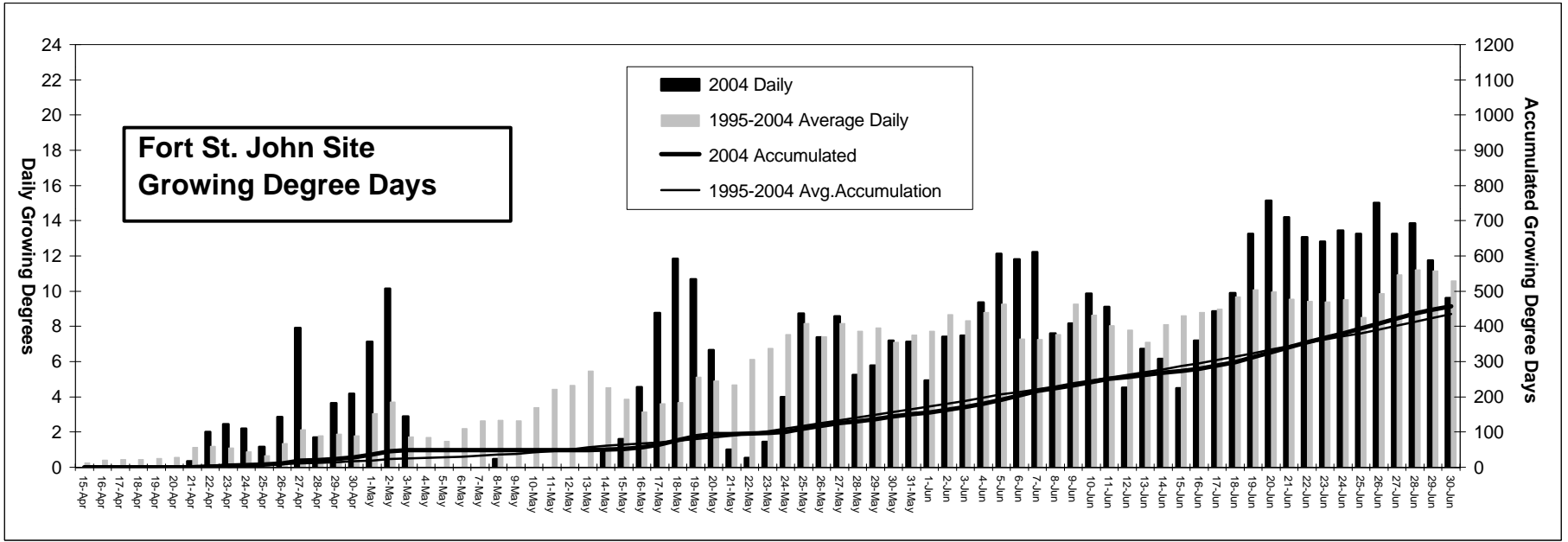
**Dawson Creek Site 2004**  
**May Daily Temperature C**



**Fort St. John Site 2004**  
**May Daily Temperature C**







## List of Certified Seed Distributors

### **Advanta Canada Inc. (Monsanto)**

PO Box 181, Rycroft, AB T0H 3A0  
Tel: (780) 518-3963 Nick Sekulic  
Tel: (800) 661-9000 (info line)  
[www.advantacan.com](http://www.advantacan.com)

### **Agricore United / Proven Seeds**

Dawson Creek Tel: (250) 782-9264  
Fort St. John Tel: (250) 785-3445  
Proven Seeds Tel: (800) 565-7333  
[www.provenseed.com](http://www.provenseed.com)  
[www.agricoreunited.com](http://www.agricoreunited.com)

### **AgriPro**

Tel: (877) 247-4746 (USA)  
[www.agripro.com](http://www.agripro.com)

### **Agriprogress Inc.**

Box 2499 Morden, MB R6M 1C2  
Tel: (204) 822-4956

### **Bayer CropScience Canada Co.**

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

### **Canseed Ltd.**

Tel: (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](http://www.canterra.com)

### **Cargill**

6711-93 Ave., Fort St. John, BC V1J 6K8  
Tel: (250) 787-0638  
[www.cargill.com](http://www.cargill.com)

### **Columbia Seed Co. Ltd.**

Box 657 Grassy Lake, AB T0K 0Z0  
Tel: (403) 655-2420  
[www.klempnauer.ab.ca/cseed.html](http://www.klempnauer.ab.ca/cseed.html)

### **Dekalb Canada Seeds (Monsanto)**

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

### **DSV Canada Inc.**

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

### **SW Seed Canada Ltd.** (Newfield, ProMark)

Box 100 Nipawin, SK S0E 1E0  
Tel: (306) 862-4678  
[www.newfieldseeds.com](http://www.newfieldseeds.com)

### **Prairie Seeds Ltd.**

1805 - 8 Street, Nisku AB T9E 7S8  
Tel: (780) 955-7906 or (800) 222-6443  
[www.prairienseeds.com](http://www.prairienseeds.com)

### **Progressive Seeds Ltd.**

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

### **Pioneer Hybrid**

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

### **Quality Assured Seeds**

422 McDonald St. Regina SK S4N 6E1  
Tel: (877) 791-0500  
[www.qas-online.com](http://www.qas-online.com)

### **SeCan Association**

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

### **Seed-Link Inc.**

Box 217 Lindsay, ON K9V 5Z4  
Tel: (705) 324-0544  
[www.seed-link.ca](http://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](http://www.johnsonseeds.com)

### **St. Denis Seed Farm Inc.**

Tel: (780) 961-3368

### **Svalof Weibull Ltd.**

2-411 Downey Rd., Saskatoon SK  
S7N 4L8 Tel: (306) 477-5230  
[www.swseed.ca](http://www.swseed.ca)

### **Syngenta**

15910 Medway Rd. RR 1  
Arva, ON N0M 1C0  
Tel: 1-800-665-9250  
[www.syngenta.com](http://www.syngenta.com)

### **University of Alberta**

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

### **Western Growers Seed Corp.**

144 Jessup Ave.  
Saskatoon, SK S7N 1Y4  
Tel: (306) 373-2400