



B.C. GRAIN
PRODUCERS
ASSOCIATION

2003
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

2003 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 protein analysis, *PEACE TRACTOR* for their help with our machinery needs, as well as other help offered from the *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 two cooperators who have generously given their support to the variety and agronomic testing program. In 2003, the cooperators were once again *Dennis Meier, Dawson Creek*, and *Cameron Fines, Fort St. John*.

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 *Alan Mittelstadt* and *Lana Miller*. Final thanks goes to *Colleen Giesbrecht* for all her help in the preparation of this report.

This document reports all registered materials grown during the 2003-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 2003 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. 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 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.

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BC Grain Producers Association Reference & Terminology

Station Years

The number of station years that the variety has been tested can be seen in the Yield tables inside the square brackets []. A station year is one test site at one location in one year. For example, a canola trial conducted at two locations over three years would 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
2003 Growing Conditions**

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

Due to large differences in seed 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.

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

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.

The spring of 2003 was delayed in the BC Peace River region by about one and a half weeks due to winter conditions refusing to abate. Once crops were planted, rainfall seemed to turn off for the South Peace region, but continued at optimum intervals for the North Peace, starting around early July. The difference in overall rainfall over the growing season between the North and South Peace regions was only about 35 mm, but most of those 35 mm fell in the North Peace during the month of July during several intense storms. This made all the difference for the North Peace, as the South Peace continued to suffer from a "surface drought" situation for most of the remaining growing season.

The majority of crops at the South Peace farm still managed to produce decent yields come harvest time, which was a fairly open one in 2003. Wheat, though, was hard hit at the site, producing lower than average yields. Canola at the same site also suffered lower than normal yields, but not as badly as the wheat. In sharp contrast, crops grown at the North Peace farm did exceptionally well in 2003, breaking records on site for both yield and seed plumpness, however they took longer to mature than those at the South Peace farm.

Wireworms hit the South Peace farm hard in 2003 adding to the crop stress there. The root attacks damaged wheat the worst, but all cereals struggled to overcome these pests during the 2 - 4 leaf stage that lasted abnormally long in 2003. Even the canola plots at Dawson Creek had their growth stagnated during the 2 - 6 true leaf period as they also struggled to replace damaged roots while at the same time contend with a lack of soil moisture.

To summarize, 2003 was an acceptable year for the South Peace research farm, and an exceptional year for the North Peace research farm.

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

Fort St. John, B.C.		Legal Description: SW19 Tp84 R18 W6							
Crop	Fertilizer Applied	kg/ha	Placement	Product: Recom. vs. Applied	Enviro-Test Labs				
					N	P ₂ O ₅	K ₂ O	S	
Canola	27-0-0-12	95	banded	Recommended* =	0	40	15	10	
	6-26-30	50	banded	Actually applied =	36	32	17	13	
	12-52-0	30	in-furrow						
Flax	20-10-10-5	150	banded	Recommended* =	80	32	15	12	
	34-0-0	118	banded	Actually applied =	83	34	17	8	
	12-52-0	30	in-furrow						
Wheat & Barley	20-10-10-5	150	banded	Recommended* =	30	30	15	5	
	12-52-0	30	in-furrow	Actually applied =	38	34	17	8	
Oats	20-10-10-5	100	banded	Recommended* =					
	12-52-0	30	in-furrow	Actually applied =	20	20	10	5	
Peas	20-0-0-24	58	banded	Recommended* =	20	35	20	15	
	6-26-30	100	banded	Actually applied =	24	47	34	16	
	12-52-0	30	in-furrow						

Dawson Creek, B.C.		Legal Description: NE18 Tp78 R14 W6							
Crop	Fertilizer Applied	kg/ha	Placement	Product: Recom. vs. Applied	Enviro-Test Labs				
					N	P ₂ O ₅	K ₂ O	S	
Canola	27-0-0-12	214	banded	Recommended* =	50	30	15	12	
	6-26-30	50	banded	Actually applied =	72	32	17	29	
	12-52-0	30	in-furrow						
Flax	20-10-10-5	150	banded	Recommended* =	50	30	15	10	
	34-0-0	48	banded	Actually applied =	56	34	17	8	
	12-52-0	30	in-furrow						
Wheat & Barley	20-10-10-5	150	banded	Recommended* =	60	25	20	5	
	34-0-0	65	banded	Actually applied =	62	34	17	8	
	12-52-0	30	in-furrow						
Oats	(34-0-0 not applied with oats)			Actually applied =	30	34	17	8	
Peas	20-0-0-24	38	banded	Recommended* =	0	45	50	10	
	6-26-30	100		Actually applied =	19	47	34	10	
	15-52-0	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	5-Jun-03	Decis® (insecticide for Flea Beetle)	50 ml/ac
	17-Jun-03	Muster® (ethametsulfuron methyl) Lontrel 360® (clopyralid) AgSurf®	12 g/ac 227 ml/ac 0.2% v/v
	17-Jun-03	Poast Ultra® (sethoxydim) separate applic. Merge®	190 ml/ac 400 ml/ac
Flax	14-Jun-03	Buctril M® (bromoxynil + MCPA)	400 ml/ac
	17-Jun-03	Poast Ultra® (sethoxydim) Merge®	190 ml/ac 400 ml/ac
Wheat, Barley, Triticale, Oats	10-Jun-03	Buctril M® (bromoxynil + MCPA)	400 ml/ac
Wheat, Barley, Triticale	7-Jun-03	Achieve® 80DG Turbocharge®	100 g/ac 0.5L/100L
Peas	7-Jun-03	Poast Ultra® (sethoxydim)early wild oat flush Merge®	190 ml/ac 400 ml/ac
	27-Jun-03	Odessey® (imazamox 35% & imazethapyr 35%) Merge®	17 g/ac 0.5% v/v

Dawson Creek, B.C.		Legal Description:	NE18 Tp78 R14 W6
Crop	Date Applied	Product Used	Rate
Canola	5-Jun-03	Decis® (insecticide for Flea Beetle)	50 ml/ac
	6-Jun-03	Poast Ultra® (sethoxydim) + Merge	445 + 624 ml/ac
	10-Jun-03	Muster® (ethametsulfuron methyl) Lontrel 360® (clopyralid) AgSurf®	12 g/ac 227 ml/ac 200 ml/100L
Flax	15-Jun-03	Buctril M® (bromoxynil + MCPA)	400 ml/ac
Wheat, Barley, Triticale, Oats	9-Jun-03	Buctril M® (bromoxynil + MCPA)	400 ml/ac
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	14-May-03	10	1.0 inch	27-Sep-03	crop-push/direct
	Rapa Canola	5.8	6.5	14-May-03	10	1.0 inch	11-Sep-03	direct cut
	Flax	38	43	22-May-03	13	1.5 inch	27-Oct-03	direct cut
	Barley	77	86	19-May-03	10	1.5 inch	11-Sep-03	direct cut
	CWRS Wheat	90	101	19-May-03	10	1.5 inch	2-Oct-03	direct cut
	CPS/CWES	90	101	19-May-03	10	1.5 inch	2-Oct-03	direct cut
	Oats	81	90	19-May-03	10	1.5 inch	20-Sep-03	direct cut
	Triticale	117	131	19-May-03	10	1.5 inch	2-Oct-03	direct cut
	Peas	149	149	15-May-03	8	1-1.5 inch	20-Sep-03	direct cut
DC	Napus Canola	8	8.9	13-May-03	9	0.5-1 inch	26-Sep-03	crop-push/direct
	Rapa Canola	5.8	6.5	13-May-03	9	0.5-1 inch	10-Sep-03	direct cut
	Flax	38	43	21-May-03	12	0.75 inch	21-Oct-03	direct cut
	2Row Barley	77	86	17-May-03	7	1 inch	9-Sep-03	direct cut
	6Row Barley	77	86	17-May-03	7	1 inch	8-Sep-03	direct cut
	Hullless Barley	77	86	17-May-03	7	1 inch	8-Sep-03	direct cut
	CWRS Wheat	90	101	17-May-03	7	1 inch	25-Sep-03	direct cut
	CPS/CWES	90	101	17-May-03	7	1 inch	30-Sep-03	direct cut
	SWSW	90	101	17-May-03	7	1 inch	3-Oct-03	direct cut
	Oats	81	90	17-May-03	7	1 inch	10-Sep-03	direct cut
	Triticale	117	131	17-May-03	7	1 inch	3-Oct-03	direct cut
	Peas	149	149	13-May-03	7	1 inch	8-Sep-03	direct cut

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Muster® is a registered trademark of DuPont Canada Inc.
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CANADA WESTERN RED SPRING WHEAT

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

CWRS Wheat		Yield as % of Katepwa									
Variety	Dawson Creek				Fort St. John				B.C. Peace		
	2003 Yield		1994-2003		2003 Yield		1994-2003		2003	1994-2003	
	bus / acre	% of Check	Avg. (%)	Station Years	bus / acre	% of Check	Avg. (%)	Station Years	Avg. (%)	Avg. (%)	Station Years
5500 HR	52 ab	110	104	[4]	75 efg	95	99	[5]	103	102	[9]
5601HR	48 a-d	101	95	[2]	76 d-g	95	98	[2]	98	96	[4]
AC Barrie	51 a-d	107	100	[7]	79 a-f	100	94	[10]	103	97	[17]
AC Inrepid	46 bcd	97	102	[5]	83 abc	104	103	[7]	100	103	[12]
AC Splendor	48 a-d	102	98	[6]	77 b-g	97	94	[8]	99	96	[14]
Alikat	47 bcd	99	98	[4]	75 efg	94	96	[5]	96	97	[9]
CDC Bounty	48 a-d	102	103	[4]	82 a-e	103	103	[5]	102	103	[9]
CDC Imagine	46 bcd	98	106	[3]	78 a-g	99	103	[3]	98	104	[6]
CDC Teal	44 d	93	101	[6]	75 efg	94	96	[9]	94	99	[15]
Harvest	45 cd	95	99	[3]	72 gh	90	97	[3]	93	98	[6]
Journey	46 bcd	98	104	[3]	74 fg	93	93	[3]	96	98	[6]
Kanata**	31 e	65	80	[3]	67 h	84	84	[4]	74	82	[7]
Katepwa	47 a-d	100	100	[7]	79 a-f	100	100	[10]	100	100	[17]
<i>Lillian (BW776)*</i>	50 a-d	105	105	[1]	84 ab	106	106	[1]	105	105	[2]
McKenzie	51 abc	108	104	[4]	81 a-f	101	101	[6]	105	103	[10]
Prodigy	54 a	113	112	[4]	76 c-g	95	100	[6]	104	106	[10]
Roblin	45 cd	95	95	[6]	76 d-g	95	95	[9]	95	95	[15]
Snowbird**	48 a-d	101	103	[3]	79 a-g	99	97	[4]	100	100	[7]
Superb	53 ab	111	110	[3]	85 a	107	107	[3]	109	108	[6]
LSD (P=.05) =		6.80			7.21						
CV value (%) =		10.14			6.56						
Varieties not tested in 2003 (1989 - 2002)										Last Year Tested	
5600 HR			103	[3]					108	[4]	(2002) 106 [7]
AC Abey			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 Makwa			100	[6]					100	[7]	(1995) 100 [13]
Columus			97	[7]					99	[3]	(1992) 98 [10]
Laura			101	[4]					105	[7]	(2000) 103 [11]
<i>Lovitt*</i>			106	[1]					111	[1]	(2002) 109 [2]
Neepawa			97	[9]					101	[8]	(1996) 99 [17]
Park			87	[7]					95	[5]	(1993) 91 [12]
Pasqua			99	[4]					93	[6]	(1995) 96 [10]

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

* first year tested, very limited data available

Katepwa - check variety

**HWSW Hard White Spring Wheat

CWRS Wheat

Variety Descriptions

Variety	B.C. Peace Averages 1994-2003					B.C. Peace 2001-02					Alberta Agdex 100/32					Distributor
	Whole Head		Height cm	Bushel Weight lbs/bu	Protein % [st.yrs]	0-9 scale (0=nil)**					Resistance to					
	Moist.	+/- check***				Septoria complex	Powdery Mildew	Lodging	Shatter	Root Rot	Loose Smut	Common Bunt	Sprouting			
■ 5500 HR	27.3	2.0	88	65.4	13.9 [7]	3.8	1.8	0.0	G	F	F	F	G	Agricore United		
□ 5601HR	34.1	1.8	85	64.2	14.5 [4]	2.0								Agricore United		
■ AC Barrie	24.6	3.0	91	62.8	14.3 [7]	3.7	2.8	0.0	G	F	G	G	F	SeCan		
■ AC Inrepid	22.1	-1.2	92	63.0	13.6 [7]	3.8	1.2	0.5	G	F	F	G	P	Canterra		
AC Splendor	20.6	-1.9	91	62.0	14.4 [7]	3.8	1.4	0.9	G	F	P	F	F	SeCan		
Alikat	22.0	-3.3	87	63.9	14.2 [7]	5.5	2.6	0.9	G	F	G	G	F	Canterra		
CDC Bounty	26.1	0.8	92	65.4	13.7 [7]	3.7	1.3	2.6	G	F	G	G	F	Canterra		
□ CDC Imagine	28.1	-1.0	88	63.3	14.0 [6]	3.6	1.0	0.0						Sask Wheat Pool		
CDC Teal	20.7	-0.7	78	63.3	14.7 [4]	2.3			G	F	F	F	F	Quality Assured Seeds		
□ Harvest	26.9	-2.3	88	64.8	14.7 [6]	5.0	0.6	0.0						Quality Assured Seeds		
■ Journey	33.3	4.1	86	64.3	15.3 [6]	3.3	2.0	0.0						Sask Wheat Pool		
□ Kanata**	29.7	0.5	85	64.1	13.9 [7]	3.9	1.4	0.0						Quality Assured Seeds		
Katepwa	21.6	0.0	93	61.9	13.7 [7]	4.0	1.4	1.2	G	F	G	G	F	SeCan		
□ Lillian (BW776)*	26.9	-0.6	87	64.3	15.0 [2]									SeCan		
McKenzie	18.3	-2.3	90	63.2	13.4 [5]	3.9	2.3	0	G	F	P	G	EX	Agricore United		
Prodigy	26.1	1.6	92	64.9	14.0 [7]	2.6	3.3	0.0	G	F	F	F	F	Sask Wheat Pool		
Roblin	20.9	-0.5	73	62.8	15.1 [4]	4.2		VG	G	F	G	P	F	SeCan		
□ Snowbird**	29.8	0.6	93	63.8	13.4 [7]	3.9	0.4	0.1						Quality Assured Seeds		
□ Superb	32.9	3.7	86	64.0	13.6 [6]	4.2	0.4	0.0	G	F	F	G	G	SeCan		
Varieties not tested in 2003 (Averages 1989-2002)																
■ 5600 HR	27.8	3.1	96	64.1	12.7 [5]	2.9	3.6	0.1	G	F	G	G	G	Agricore United		
■ AC Abey	22.4	-0.1	84	62.7	12.6 [5]	3.7	0.6	0.1	G	F	G	G	P	Semiarid Prairie Ag		
■ AC Cadillac	20.3		99	62.8	13.5 [3]	3.9	0.7	1.8	G	F	G	G	F	Quality Assured Seeds		
AC Cora	17.6		93	61.6	13.3				G	G	G	G	F	SeCan		
AC Domain	19.5		85	62.4	14.2				VG	G	F	G	F	SeCan		
AC Eatonia	23.1		92	61.1	12.9				F	G	F	F	G	Agricore United		
■ AC Elsa	24.8	3.1	88	61.0	13.8 [5]	2.7	0.8	0.1	G	F	G	F	F	SeCan		
AC Majestic	23.2		96	61.8	12.7 [3]	2.2	2.3	0.6	G	F	F	G	F	SeCan		
AC Michael	18.5		93	60.6	12.8				G	G	F	G	F	SeCan		
AC Minto	14.6		94	62.5					G	G	F	G	F	SeCan		
CDC Makwa	14.9		89	61.9					G	G	P	G	F	SeCan		
Columus	25.5		88	63.2					G	G	F	F	F	SeCan		
Laura	24.1		92	61.1	13.0				G	G	F	F	P	SeCan		
□ Lovitt*	38.9	1.8	79	64.0	13.4 [2]	2.7								Canterra		
Neepawa	20.0		91	60.9					G	G	F	G	F	CRC		
Park	17.1		81	62.7					F	G	F	G	F	LRC		
Pasqua	15.8		87	61.8					G	G	P	P	F	SeCan		

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

F = fair, P = poor (susceptible)

* first year tested, very limited data available

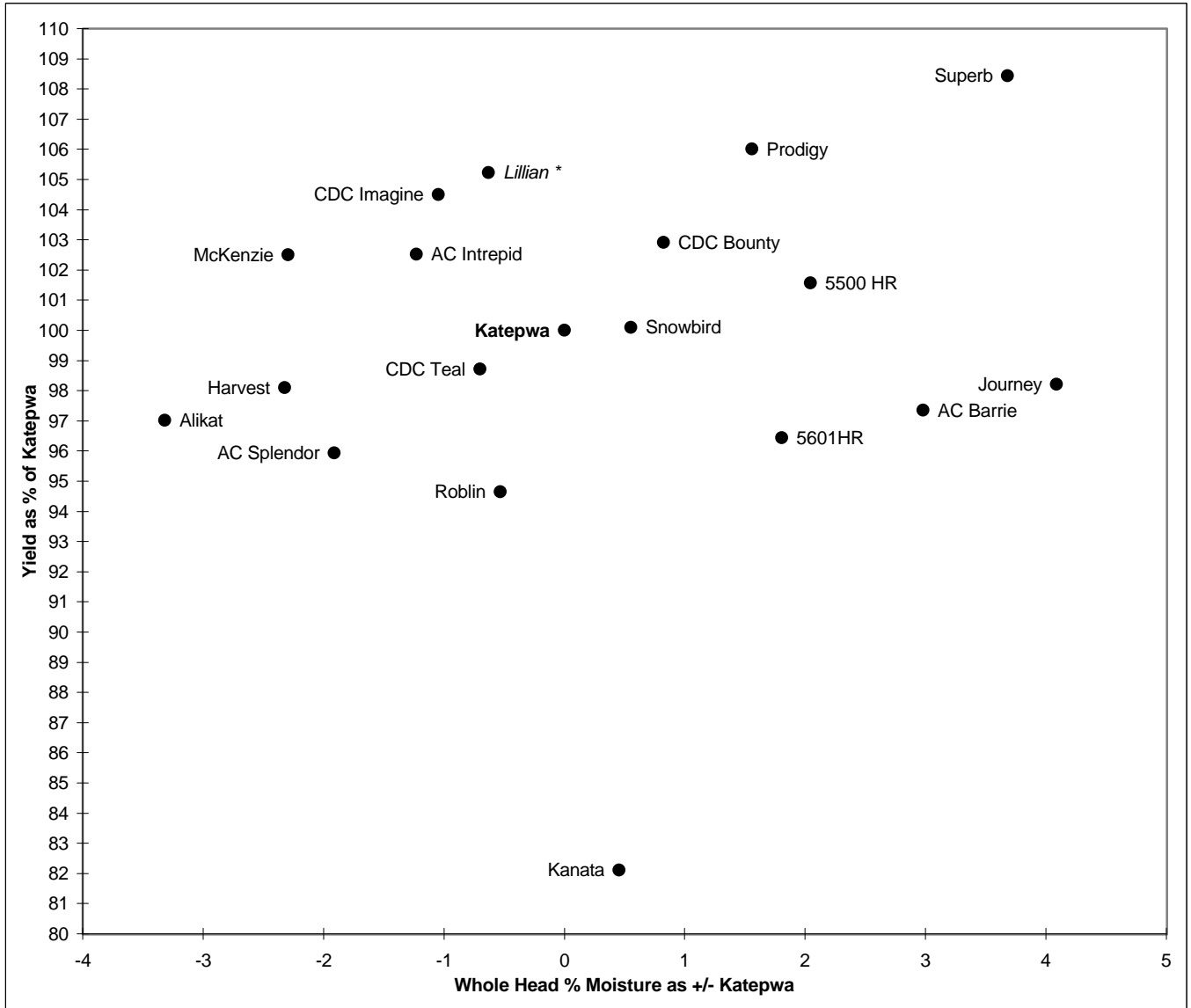
** 0 - 9 scale; 0 = none, 9 = 100% affected

Katepwa - check variety

□ Protection under Plant Breeders' Rights applied for

■ Protected by Plant Breeders' Rights

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		
		2003 Yield		1993-2003		2003 Yield		1994-2003		2003	1993-2003	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
5700PR	CPS red	46 d	89	100	[4]	85 ab	96	98	[5]	93	99	[9]
5701PR	CPS red	57 ab	110	115	[2]	82 b	92	91	[3]	101	103	[5]
AC Crystal	CPS red	59 a	113	105	[6]	86 ab	98	97	[8]	105	101	[14]
AC Foremost	CPS red	54 abc	104	99	[7]	91 a	103	100	[9]	103	99	[16]
AC Taber	CPS red	52 c	100	100	[8]	88 a	100	100	[10]	100	100	[18]
AC Barrie	CWRS	52 bc	100	88	[3]	71 c	80	74	[3]	90	81	[6]
Katepwa	CWRS	52 bc	101	88	[3]	72 c	82	76	[3]	91	82	[6]
		LSD (P=.05) = CV value (%) =		5.23 6.73		6.47 5.55						
<u>Varieties not tested in 2003 (Averages 1989-2002)</u>											<u>Last Year Tested</u>	
AC2000**	CPS white			102	[3]			100	[4]	(2002)	101	[7]
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

**AC 2000 - Restricted registration expires June 27, 2004

CPS & CWES grown together in same trial.

CWES Wheat		Yield as % of AC Taber										
Variety	Type	Dawson Creek				Fort St. John				B.C. Peace		
		2003 Yield		1993-2003		2003 Yield		1994-2003		2003	1993-2003	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Taber	CPS red	52 c	100	100	[8]	88 a	100	100	[10]	100	100	[18]
Amazon	CWES	53 bc	102	97	[4]	70 c	80	83	[6]	91	90	[10]
Glenavon	CWES	53 bc	102	101	[3]	74 c	83	87	[4]	93	94	[7]
AC Barrie	CWRS	52 bc	100	88	[3]	71 c	80	74	[3]	90	81	[6]
Katepwa	CWRS	52 bc	101	88	[3]	72 c	82	76	[3]	91	82	[6]
		LSD (P=.05) = CV value (%) =		5.23 6.73		6.47 5.55						
<u>Varieties not tested in 2003 (Averages 1989-2002)</u>											<u>Last Year Tested</u>	
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]
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

Variety	Type	B.C.Peace Averages 1994-2003					B.C. Peace 2001-02				data Alberta Agdex 100/32					Distributor
		***Whole Head		Height cm	Bushel Weight lbs/bu	Protein % [st.yrs]	0-9 scale (0=nil)**				Resistance to					
		Moist.	+/- check***				Septoria complex	Powdery Mildew	Lodging	Shatter	Root Rot	Loose Smut	Common Bunt	Sprouting		
■ 5700PR	CPS red	28.8	-0.4	74	69	11.6 [6]	3.65	0.88	0	G	F	P	G	P	Agricore United	
□ 5701PR	CPS red	36.3	-0.2	73	62	12.4 [4]	3.33			G		F	P	P	Agricore United	
■ AC Crystal	CPS red	27.4	0.4	79	67	11.7 [6]	2.35	1.76	0.63	G	P	F	G	P	SeCan	
■ AC Foremost	CPS red	21.2	-1.4	70	62	12.0 [4]		3		G	F	G	G	F	SeCan	
■ AC Taber	CPS red	24.8	0.0	80	65	11.6 [6]	2.43	1.44	0.32	G	F	P	G	P	SeCan	
□ Amazon	CWES	31.7	0.7	98	66	13.0 [6]	3.36	1.25	2.63	G	F	G	F	P	U of Manitoba	
■ Glenavon	CWES	35.1	-0.3	101	70	12.7 [6]	3.06	1.07	2.88	G	F	G	F		SeCan	
■ AC Barrie	CWRS	31.1	-1.1	88	65	14.2 [6]	4.58	3.07	0	G	F	G	G	G	SeCan	
■ Katepwa	CWRS	26.6	-2.6	93	62	13.3 [7]	4.03	1.44	1.19	G	F	G	G	F	SeCan	
<u>Varieties not tested in 2003 (Averages 1989-2002)</u>																
AC2000	CPS white	30.4	0.4	78	69	11.3 [4]	3.28	2.19	0.19	G	F	F	G	F	SeCan	
AC Corrine	CWES	27.4		91	61					G	G	F	G	F	CRC	
AC Karma	CPS white	15.8		83	62					G	F	G	G	P	SeCan	
■ AC Vista	CPS white	18.9		88	68	10.1 [2]	2.94	2.63	0.38	G	F	F	G	P	Quality Assured	
Bluesky	CWES	17.8		99	61					F	G	G	G	F	SeCan	
CDC Rama	CWES	38.2	-0.1	98	80	13.7 [4]	2.9	0.94	1.75						U of S	
Cutler	CPS red	13.9		77	62					G	G	F	P	F	UofA	
Glenea	CWES	24.6		102	61					G	G	G	G	F	U of M	
Laser	CWES	18.1		90	61					EX	G	F	G	P	U of A	
Wildcat	CWES	16.0		89	59					F	G	F	G	P	SeCan	

AC Taber - check variety

- Protection under Plant Breeders' Rights applied for
- Protected by Plant Breeders' Rights

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

F = fair, P = poor (susceptible)

* first year tested, very limited data available

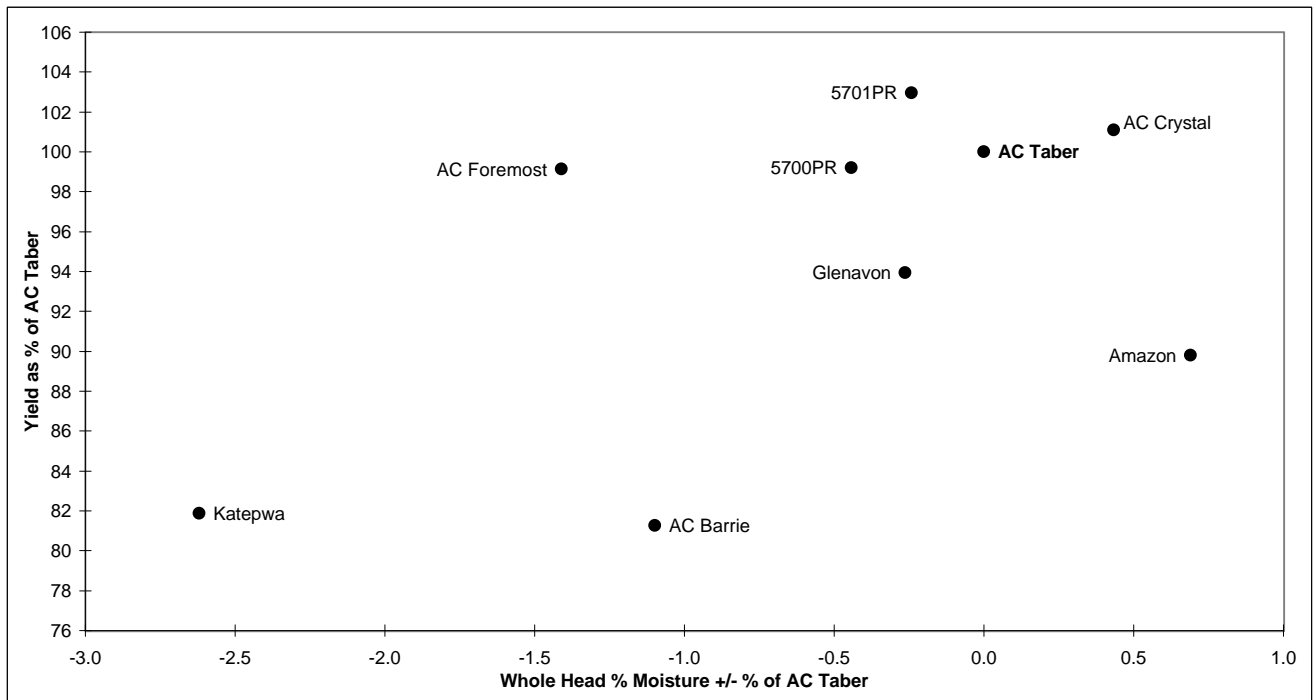
** 0 - 9 scale; 0 = none, 9 = 100% affected

(no lodging or Powdery Mildew occurred in 2002 to record)

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

CPS / CWES Wheat

Regional Variety Performance 1994-2003



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 are actually surpassing 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		
		2003 Yield		1993-2003		2003 Yield		1993-2003		2003	1993-2003	
		bus / acre	% of check	Avg. Stn. Yrs.		bus / acre	% of check	Avg. Stn. Yrs.		Avg. (%)	Avg. (%)	Stn. Yrs.
AC Albright	feed	75 ghi	89	99	[7]	125 hij	100	98	[10]	95	98	[17]
AC Harper	feed	85 b-g	102	112	[6]	143 a-e	115	109	[8]	108	111	[14]
AC Lacombe	feed	88 b-e	105	118	[8]	143 a-d	115	110	[11]	110	114	[19]
AC Ranger	forage	88 b-e	105	119	[3]	137 c-g	110	122	[3]	108	120	[6]
AC Rosser	feed	84 b-g	101	114	[6]	137 c-g	111	116	[8]	106	115	[14]
B1602	malt(white)	77 fgh	92	101	[7]	121 jk	97	94	[9]	95	98	[16]
BT954	malt(white)	81 d-g	97	95	[2]	127 g-j	102	105	[2]	100	100	[4]
CDC Battleford	malt	94 ab	113	115	[2]	149 ab	120	121	[2]	116	118	[4]
CDC Sisler	malt(white)	79 d-g	95	103	[5]	138 c-g	111	106	[7]	103	104	[12]
CDC Springside	malt(white)	86 b-f	103	110	[2]	136 c-h	109	114	[2]	106	112	[4]
CDC Tisdale	malt	83 c-g	99	108	[2]	134 d-i	108	121	[2]	104	114	[4]
Harrington	2R malt	84 b-g	100	100	[8]	124 ij	100	100	[11]	100	100	[19]
Kasota	feed(sd)	83 c-g	100	119	[8]	132 e-j	106	111	[11]	103	115	[19]
<i>Lacey (BT965)*</i>	malt(white)	75 gh	90	90	[1]	130 f-j	105	105	[1]	97	97	[2]
LEGACY	malt (white)	84 b-g	101	106	[3]	126 hij	101	107	[3]	101	106	[6]
Mahigan	feed(sd)	87 b-f	104	117	[5]	143 a-d	115	111	[7]	109	114	[12]
<i>Manny (BT562)*</i>	feed	104 a	125	125	[1]	147 abc	118	118	[1]	121	121	[2]
Robust	malt (white)	81 d-g	96	99	[3]	124 ij	100	98	[3]	98	99	[6]
Trochu	feed	89 bcd	106	114	[3]	141 b-f	113	111	[4]	110	112	[7]
Vivar	feed(sd)	93 bc	112	123	[3]	152 a	122	123	[4]	117	123	[7]
LSD (P=.05) =		10.81				10.97						
CV value (%) =		9.21				5.85						
<u>Varieties not tested in 2003 (Averages 1989-2002)</u>											<u>Last Year Tested</u>	
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]
CDC YORKTON	malt			113	[1]			106	[3]	(2000)	109	[4]
Deul	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]
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]

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

* first year tested, very limited data available

Harrington - check variety

(sd) semi-dwarf variety

Two Row Barley

Yield as % of Harrington

Variety	Type	Dawson Creek		Fort St. John				B.C. Peace					
		2003 Yield		1993-2003		2003 Yield		1993-2003		2003	1993-2003		
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
AC Metcalfe	malt	82 c-g	101	113	[8]	141 b-e	113	108	[11]	107	111	[19]	
CDC Bold	feed(sd)	87 bcd	107	110	[4]	146 abc	116	116	[5]	112	113	[9]	
CDC Copeland	malt	80 d-h	99	100	[4]	126 g-j	100	108	[5]	100	104	[9]	
CDC Dolly	feed	85 b-e	104	116	[8]	143 bcd	114	112	[11]	109	114	[19]	
CDC Helgason	feed	82 c-h	101	106	[3]	135 d-g	108	109	[4]	104	108	[7]	
CDC Kendall	malt	77 f-i	95	101	[6]	124 ij	99	98	[10]	97	99	[16]	
CDC Select	malt	75 hi	92	101	[2]	135 d-h	108	107	[3]	100	104	[5]	
CDC THOMPSON	malt(sd)	70 i	87	90	[6]	129 f-j	103	105	[8]	95	98	[14]	
Harrington	malt	81 c-h	100	100	[8]	125 hij	100	100	[11]	100	100	[19]	
Merit	malt	92 b	113	114	[4]	149 ab	119	113	[6]	116	114	[10]	
Newdale	malt	79 e-h	98	106	[3]	133 e-i	106	103	[3]	102	105	[6]	
Niobe	feed	81 c-h	100	105	[2]	143 bcd	114	102	[2]	107	104	[4]	
<i>Ponoka (TR01656)*</i>	feed	100 a	123	123	[1]	153 a	122	122	[1]	123	123	[2]	
Rivers (TR256)	feed	83 c-f	103	103	[3]	129 f-j	103	102	[3]	103	103	[6]	
Robust (6R check)	6R malt	75 ghi	93	93	[3]	120 j	95	93	[3]	94	93	[6]	
Seebe	feed	88 bc	109	118	[8]	148 ab	118	112	[11]	113	115	[19]	
XENA	feed	83 c-f	103	110	[4]	150 ab	120	113	[5]	111	111	[9]	
LSD (P=.05) =		7.16				9.73							
CV value (%) =		6.14				4.98							
<u>Varieties not tested in 2003 (Averages 1989-2002)</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]	
<i>Calder *</i>	malt			114	[1]			101	[1]	(2002)	108	[2]	
CDC Fleet	feed			101	[3]			83	[4]	(1999)	92	[7]	
CDC STRATUS	malt			117	[5]			102	[8]	(2000)	110	[13]	
<i>CDC Trey (TR359)*</i>	feed			105	[1]			95	[1]	(2002)	100	[2]	
Manley	malt			119	[5]			105	[5]	(1998)	112	[10]	

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					
		2003 Yield		1993-2003		2003 Yield		1994-2003		2003	1993-2003		
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
CDC McGwire	2 row	62 efg	90	99	[3]	104 f-j	104	97	[4]	97	98	[7]	
Falcon	6 row	53 hi	77	99	[7]	88 kl	89	89	[9]	83	94	[16]	
<i>Tyto*</i>	6 row	51 i	74	81	[1]	83 l	83	86	[1]	79	84	[2]	
Harrington	2R malt	67 b-g	100	100	[7]	99 ij	100	100	[9]	100	100	[16]	
LSD (P=.05) =		8.65				8.87							
CV value (%) =		9.21				5.85							
<u>Varieties not tested in 2003 (Averages 1989-2002)</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]	
<i>CDC Speedy*</i>	2 row							92	[1]	(2000)	92	[1]	
HB805	2 row			88	[2]			87	[3]	(2001)	88	[5]	
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					B.C. 2001-2003				Alberta Agdex 100/32				Distributor
		2001-03	1993-2003	B.C. Peace Averages			0-9 scale (0=nil)**				Resistance to				
		***Whole	Days	Bushel			Scald	Net	Blotch	Lodging	Root Rot	Loose Smut	False Smut		
		Head %Moist	to Maturity	Height cm	Weight lbs/bu	Protein % [st.yrs]									
<u>Eligible for General Purpose Grades Only</u>															
AC Albright	6 row	-11.2	93	85	52	12.6 [4]	1.8	1.7		P	P	P		SeCan	
■ AC Harper	6 row	2.9	100	78	49	12.6 [6]	2.1	2.0	0.3	F	P	F		SeCan	
■ AC Lacombe	6 row	0.0	99	83	50	11.6 [6]	1.7	1.5	0.6	P	P	G		SeCan	
■ AC Rosser	6 row	7.1	101	80	50	11.6 [6]	2.9	1.7	2.4	F	P	G		SeCan	
CDC Dolly	2 row	3.8	101	73	55	13.1 [6]	2.0	2.4	0.1	F	P	G		SeCan	
■ CDC Helgason *	2 row	-0.2	97	77	55	13.0 [6]	2.3	2.3	0.1	F	G	G		SeCan	
□ Niobe	2 row	0.6	96	64	54	13.4 [4]	0.6	1.5						SeCan	
□ Ponoka (TR01656)*	2 row	10.5	104	68	53	12.7 [2]	1.1							SeCan	
□ Rivers (TR 256)	2 row	-2.8	95	75	53	12.6 [6]	3.2	1.7	0.0	P	G	G		Quality Assured	
Seebe	2 row	13.4	104	86	54	14.2 [6]	0.7	2.2	0.8	P	P	G		SeCan	
□ Trochu	6 row	0.8	97	78	52	11.5 [6]	2.1	1.2	0.3	G	P	G		SeCan	
■ XENA	2 row	2.1	99	72	55	12.7 [6]	2.4	2.2	0.0	G	P	P		Agricore United	
<u>Varieties not tested in 2003 (Averages 1989-2002)</u>															
AC Stacey	6 row		93	65	52					P	P	G		SeCan	
Brier	6 row		99	80	50					P	P	G		SeCan	
Bronco	6 row		102	90	54					F	P	F		Value Added	
CDC EARL	6 row(sd)		101	69	50					F	P	G		SeCan	
CDC Fleet	2 row		97	77	55					P	P	P		Quality Assured	
□ CDC Trey (TR359)*	2 row	-5.0	89	59	55	13.6 [2]	2.7	1.8						SeCan	
Duke	6 row(sd)		98	72	51					F	P	F		SeCan	
GAMINE *	6 row		106	97	49	11.9 [2]	6.0	3.1	0.0					ProMark Seed	
Jackson	6 row		92	66	52					P	P	P		SeCan	
Leduc	6 row		97	77	50					F	F	G		SeCan	
■ Niska	6 row	9.0	102	70	53	11.3 [4]	1.2	1.4	0.8	P	P	G		Canterra	
■ Stander	6 row		103	77	53					F	P	F		Agricore United	
Stetson	6 row(sd)		102	53	51					F	P	G		Agricore United	
Tukwa	6 row(sd)		100	73	51					F	P	G		SeCan	
Westford *	6 row		102	112	47	11.3 [2]	3.4	2.4	0.3			P		Agricore United	

□ Protection under Plant Breeders' Rights applied for

■ Protected by Plant Breeders' Rights

(sd) semi-dwarf variety

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

(no lodging present to record in 2002 & 2003)

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

F = fair, P = poor (susceptible)

* first year tested, very limited data available

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													
		2001-03					2001-03 B.C. Avr.				Alberta Agdex 100/32				
Variety	Type	B.C. Peace		1994-2003 B.C. Peace Averages			0-9 scale (0=nil)**				Resistance to				Distributor
		***% Moist.	+/- of Check	Days to Maturity	Height cm	Weight lbs/bu	Protein % [st.yrs]	Scald	Net Blotch	Lodging	Root Rot	Loose Smut	False Smut		
■ AC Metcalfe	2 row	1.7	100	80	54	13.0 [6]	2.2	2.1	0.5	F	G	F	SeCan		
■ CDC Copeland	2 row	1.8	99	79	53	12.5 [6]	3.4	2.1	0.3	F	P	G	SeCan		
■ CDC Kendall	2 row	-3.1	98	76	54	13.3 [6]	2.3	2.3	0.3	F	P	P	Agricore United		
■ CDC Select	2 row	5.1	96	68	53	13.0 [4]	2.1	1.2		F	G	G	Agricore United		
CDC THOMPSON	2 row	-1.8	102	57	55	13.2 [4]	1.5	3.7	0.0	F	P	G	Quality Assured		
Harrington	2 row	0.0	99	72	54	12.8 [12]	3.8	2.8	0.8	F	P	P	SeCan		
■ Merit	2 row	11.5	103	73	54	12.3 [6]	2.5	2.2	0.0	F	P	G	Agricore United		
□ Newdale	2 row	1.4	98	73	53	13.2 [6]	2.7	1.9	0.0	G	P	G	Quality Assured		
B1602	6 row	-3.9	98	83	53	11.5 [4]	2.3	1.4	G	F	P	F	Agricore United		
BT954	6 row	-4.1	92	70	52	12.4 [4]	3.0	1.0					Busch Ag		
■ CDC Battleford	6 row	2.0	96	71	52	11.6 [4]	1.9	1.0					Quality Assured		
■ CDC Sisler	6 row	1.6	99	89	52	12.0 [4]	2.4	1.0	G	F	P	P	Agricore United		
■ CDC Springside	6 row	-2.4	93	75	52	11.5 [4]	2.3	1.4					Agricore United		
■ CDC Tisdale	6 row	2.0	96	74	50	11.6 [4]	2.1	0.8					Quality Assured		
□ Lacey (BT965)*	6 row	-5.7	95	67	52	12.7 [2]	3.0						Newfield Seeds		
■ LEGACY	6 row	1.0	97	80	52	12.4 [6]	2.9	2.0	1.2	G	F	G	Agricore United		
Robust	6 row	1.0	97	78	53	13.3 [10]	2.5	1.9	1.1	F	F	F	Cargill		
Varieties not tested in 2003 (Averages 1989-2002)															
AC Bountiful	2 row		102	85	55	12.5 [2]	4.0	2.6	0.3	F	G	G	Quality Assured		
AC Oxbow	2 row		100	87	54					VG	F	G	F	SeCan	
Argyle	6 row		96	93	51					G	F	P	P	SeCan	
B1215	2 row		103	75	54					VG	F	P	F	Agricore United	
Bonanza	6 row		95	77	50					P	F	P	P	public	
□ Calder	2 row	-1.2	90	59	54	13.1 [2]	1.7	1.4					SeCan		
CDC STRATUS	2 row		101	74	54					G	F	F	F	Quality Assured	
■ CDC YORKTON	6 row		103	71	52					G	G	P	G	Agricore United	
Duel	6 row		98	89	50					G	F	P	F	Agricore United	
Excel	6 row	4.9	99	81	52	11.7 [4]	2.4	1.6	0.7	F	P	G	Agricore United		
■ Foster	6 row		101	79	50					G		P		Agricore United	
Manley	2 row		104	78	53					G	F	P	F	SeCan	
Tankard	6 row		103	80	63					G	F	P	P	SeCan	

Hulless Barley		Variety Descriptions												
		2001-02		1994-2003			2001-2003 Average				Resistance to			
Variety	Type	B.C. Peace		B.C. Peace Averages			0-9 scale (0=nil)**				Resistance to			
		***%Moist.	+/- of Check	Days to Maturity	Height cm	Weight lbs/bu	Protein %	Scald	Net Blotch	Lodging	Root Rot	Loose Smut	False Smut	
■ CDC McGwire	2 row	7.2	101	76	64	12.7	0.8	2.2		G	P	G	SeCan	
■ Falcon	6 row	3.5	99	65	62	14.8	1.5	2.1		F	P	G	Progress./SeCan	
□ Tyto	6 row	-1.8	93	60	61	13.3	1.6						Progressive	
Varieties not tested in 2003 (Averages 1989-2002)														
AC Bacon	6 row	0.5	99	81	61		2	1.5		F	P	G	SeCan	
■ AC Hawkeye	6 row		102	100	62					F	P	P	Agricore United	
CDC Dawn	2 row		101	81	62					F	P	P	SeCan	
CDC Freedom	2 row	-1.5	98	86	63		3.7	2.5		F	P	G	SeCan	
CDC Gainer	2 row		97	81	62					F	P	F	Quality Assured	
CDC Silky	6 row	5.5	102	76	60		1.3	1.3		F	F	F	Value Added	
CDC Speedy*	2 row			82	64								Value Added	
HB 805	2 row		100	77	61		3.7	2.6					Agricore United	
Jaeger	2 row		103	65	60					P	P	P	Progressive	
■ Peregrine	6 row	-2.7	97	58	62		2.2	2.3		F	P	F	Progressive	
Phoenix	2 row		101	83	62					F	P	F	Progress./SeCan	
Terrel	6 row		99	76	62					F	P	F	Progressive	

□ Protection under Plant Breeders' Rights applied for

■ Protected by Plant Breeders' Rights

(sd) semi-dwarf variety

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

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

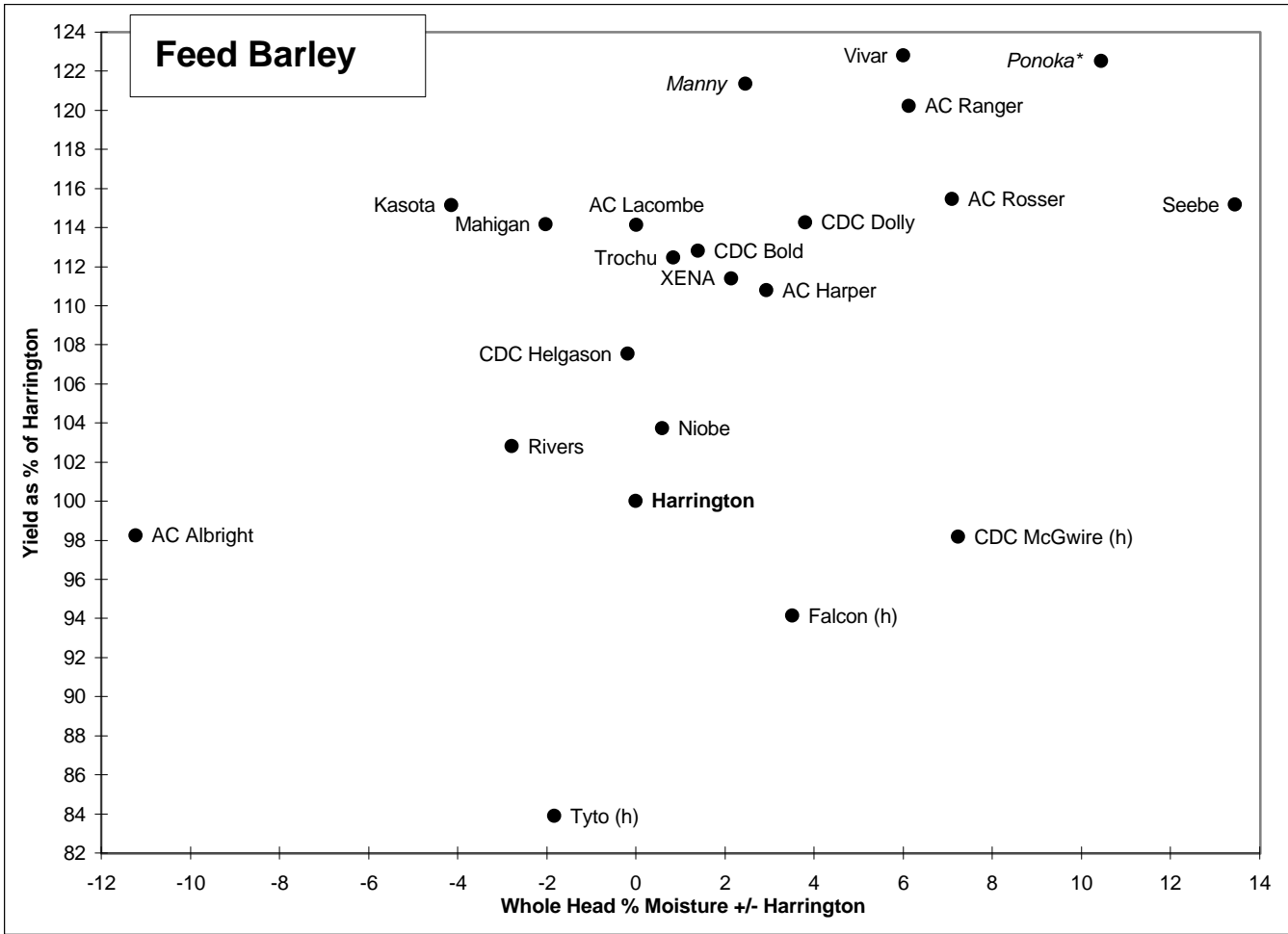
F = fair, P = poor (susceptible)

* first year tested, very limited data available

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

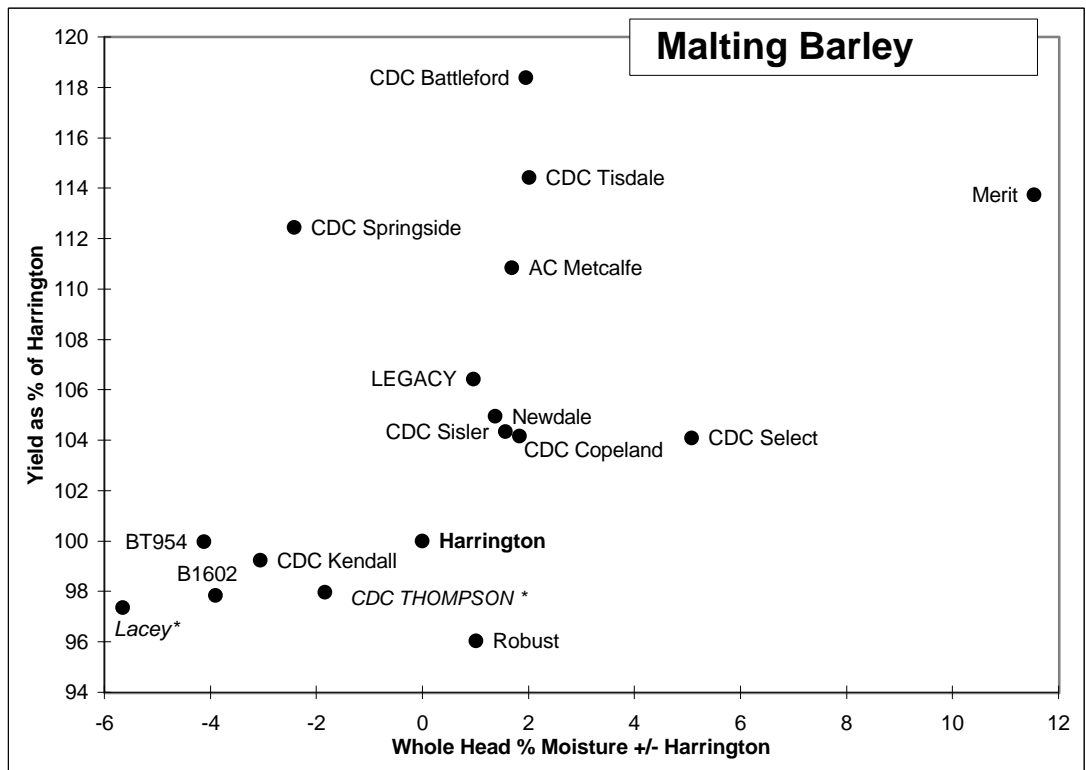
Barley

Regional Variety Performance 1993-2003



(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	2003 Yield		1993-2003		2003 Yield		1994-2003		2003	1993-2003	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Juniper	white	134 b	99	105	[6]	172 cde	104	102	[10]	101	103	[16]
AC Morgan	white	144 ab	107	110	[4]	186 ab	113	109	[5]	110	110	[9]
AC Mustang	white	154 a	114	108	[7]	182 ab	111	107	[11]	112	107	[18]
Cascade	yellow	135 b	100	100	[7]	165 e	100	100	[11]	100	100	[18]
<i>CDC Baler</i> *		145 ab	107	107	[1]	178 bc	108	108	[1]	107	107	[2]
CDC Dancer	yellow	135 b	99	93	[3]	167 de	102	97	[4]	101	95	[7]
CDC Orrin	white	156 a	115	110	[2]	190 a	115	110	[2]	115	110	[4]
Derby	white	153 a	113	100	[6]	169 de	102	98	[10]	108	99	[16]
Ronald (AC Ronald)	yellow	133 b	98	95	[3]	170 cde	103	98	[3]	101	97	[6]
	LSD (P=.05) =	12.98				8.69						
	CV value (%) =	6.46				3.48						
				<u>Varieties not tested in 2003 (Averages 1989-2002)</u>				<u>Last Year Tested</u>				
AC Assiniboia	tan			86	[4]			88	[8]	(2002)	87	[12]
AC Gwen (h)	white			75	[2]			81	[3]	(2002)	78	[5]
AC Belmont (h)				75	[4]			78	[8]	(2000)	76	[12]
AC Ernie (h)				71	[1]			65	[2]	(1999)	68	[3]
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 Pacer				103	[2]			100	[5]	(2000)	101	[7]
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]
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. (1994-2003)				Resistance to			Distributor
		Days to Maturity	***2002&03 Whole Head +/-%moist	Height cm	Bushel Weight lbs/bu	Lodging	Shatter	Smuts	
AC Juniper	milling	107	-0.6	95	42	VG	G	I	Agricore United
AC Morgan	milling	111	3.9	92	42	VG		I	SeCan
AC Mustang	feed / forage	109	5.5	104	43	G	G	I	Agricore United
Cascade	feed	108	0.0	104	41	G	G	S	SeCan
<i>CDC Baler *</i>	forage	109	11.5	98	41				Quality Assured
■ CDC Dancer	milling	110	-1.0	96	43	G		R	Cargill
□ CDC Orrin	milling	108	5.4	83	43				Quality Assured
Derby	milling	108	5.5	100	42	G	G	S	Agricore United
■ Ronald (AC Ronald)	milling	112	5.2	86	44	VG		R	SeCan
<u>Varieties not tested in 2003 (Averages 1989-2002)</u>									
■ AC Assiniboia	milling	110	4.0	97	40	G	G	F	SeCan
AC Gwen (OT 297)	hulless	123	11.6	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	11.9	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	4.9	103	40	G	G	P	SeCan
CDC Pacer	milling	108		93	42	F	G	F	Quality Assured
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	8.0	109	42	G			SeCan
■ Pinnacle	milling	115	7.7	94	41	F		G	Quality Assured
Robert		106		93	40	G	G	G	SeCan
■ SW EXACTOR	milling	112	4.2	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

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

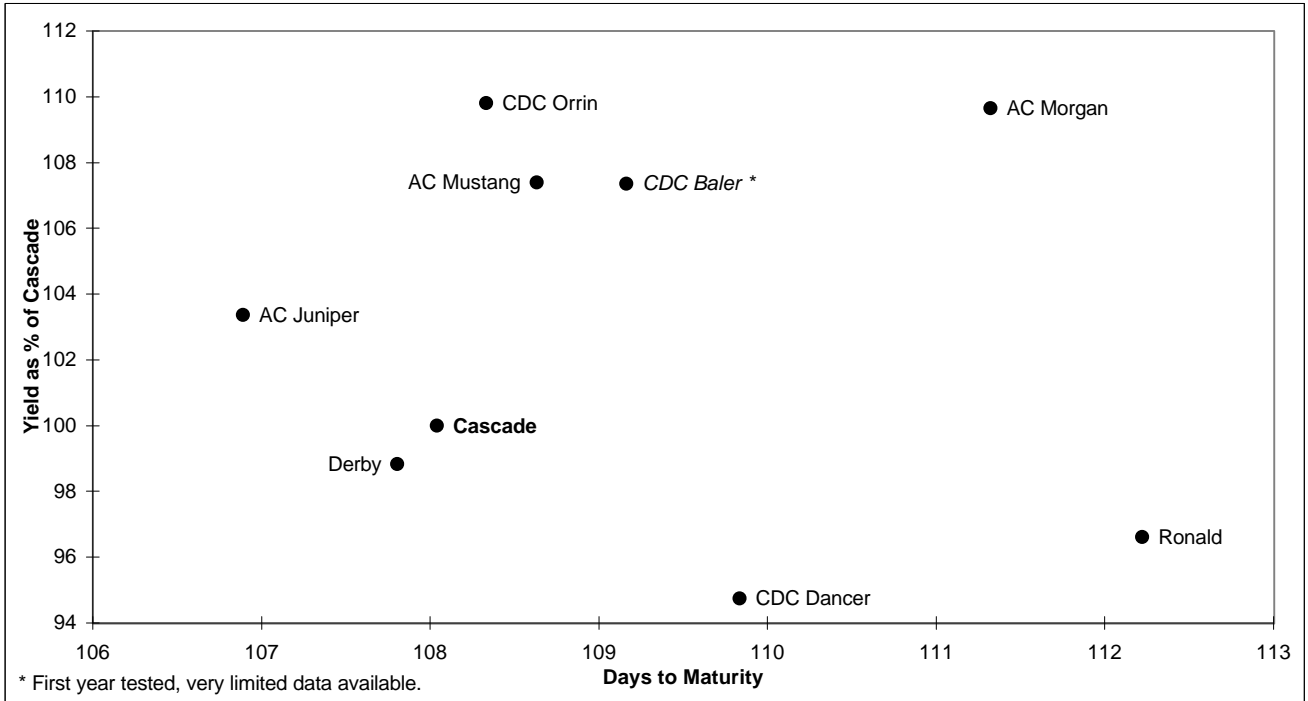
■ Protected by Plant Breeders' Rights

S = Susceptible I = Intermediate R = Resistant

□ Protection under Plant Breeders' Rights applied for

* first year tested, very limited data available

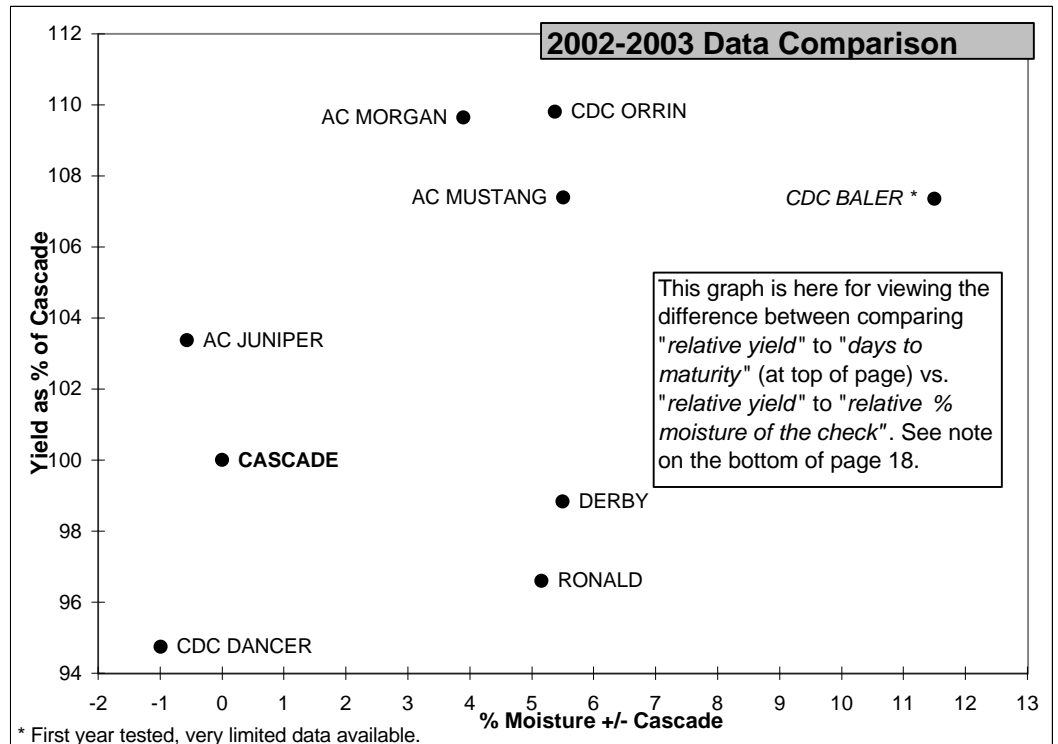
Note: ***Whole Head +/- % Moisture: These values display how much "wetter" or "drier" a given variety is as compared to the check variety at the time of head collection. Head collection occurs when the earliest lines are below 20% moisture. This was developed to accommodate a more accurate system of comparing maturity *between years*, using oat panicles (heads) in a similar fashion as they are used for barley and wheat heads (see pages 8 & 11 for wheat). The difference is oat "heads", or rather oat panicles, have a larger tissue to seed ratio than barley or wheat. This data displays comparisons as *relative to the check (+ / -)* in a similar fashion as yield data. The assumption is that everyone knows the abilities and or inabilities of the check variety for our area, and thus can derive how much later or earlier maturing a given variety is based on whole head % moisture. *Whole head % moisture* is a tangible (quantitative) measurement, not an assigned relative value (qualitative), and thus should be more accurate than maturity estimates based on visual assessments. However, according to two years worth of data collected from two stations as displayed above, the relationship between "days to" and "whole head + / - % moisture" does not necessarily co-relate, thus it is best to rely on "*days to maturity*" column for now until this is investigated further. This new column and corresponding graph are still inconclusive, **and are displayed here in this report for interest only at this time.**



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



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. All three varieties entered here in this trial are earlier than other traditional spring triticale varieties, and perhaps as breeding continues earlier lines may come along that we can grow for grain here. Their grain yields are "attention grabbers", and so it is worth watching their development. Drought tolerance is the primary advantage that spring triticales have over other spring cereal crops. Spring triticales are also a valuable alternative to barley & oats forage and feed. It is for these reasons that data is included.

Spring Triticale		Yield as % of Pronghorn									
Variety	Dawson Creek				Fort St. John				B.C. Peace		
	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.
AC Alata	79 a	114	106 [2]		131 a	103	103 [2]		109	104 [4]	
AC Certa	61 c	88	88 [2]		111 b	87	89 [2]		88	88 [4]	
AC Ultima	67 bc	97	101 [3]		108 b	84	94 [3]		91	97 [6]	
Pronghorn	69 b	100	100 [3]		128 a	100	100 [3]		100	100 [6]	
LSD (P=.05) =	7.61				7.69						
CV value (%) =	8.24				4.36						
Varieties not tested in 2003 (Averages 2001)						Last Year Tested					
SANDRO			104 [1]				97 [1]		100 (2001)	[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						
Variety	Maturity (days to)	Whole	Height (cm)	Bushel	TKW (g / 1000)	0 - 9 scale; 0=nil		Distributor
		Head % Moist.		Weight (lbs/bus)		Septoria complex	Ergot	
AC Alata	123	8.8	87	54	55	3.0		Progressive
AC Certa	118	1.2	98	60	45	2.3		Progressive
AC Ultima	123	-5.5	103	59	50	3.2	0.6	Quality Assured
Pronghorn	126	0.0	106.8	57	47	3.1	0.3	Progressive
Varieties not tested in 2003 (Averages 2001)								
SANDRO	148		117	58	50	1.5	3.1	Promark Seed

SOFT WHITE SPRING WHEAT

Soft White Spring Wheat		Yield as % of AC Reed and Variety Descriptions										
Variety	Dawson Creek		Fort St. John				B.C. Peace 2002-2003 Averages					Distributor
	2003 Yield		2002**		2003 Yield		2002-2003		Bushel			
	bus / acre	% of check	bus / acre	% of check	Avg. Stn. (%) Yrs.	Stn. Yield Yrs. Avg %	Stn. Yield Yrs. Avg %	Days to Maturity	Weight lb/bu	Height (cm)		
AC Andrew	70.1 a	115	111 a	111	115 [2]	[3] 115	114	63	75		SeCan	
AC Meena	68.3 a	115	111 a	110	115 [2]	[3] 115	115	64	75		Haney Farms	
AC Reed	44.7 b	100	101 b	100	100 [2]	[3] 100	116	63	69		SeCan	
<i>Bhishaj (SWS-285)*</i>	67 a		109 a	109	109 [1]	[1] 109	118	65	88		Tony Crooymans	
LSD (P=.05) =	4.94		5.26									
CV value (%) =	4.94		4.83									
Varieties not tested in 2003 (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

**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 the following active ingredients: *benomyl*, *carbathiin*, *iprodisone* 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										
		Dawson Creek				Fort St. John				B.C. Peace		
Variety	2003 Yield		1994-2003		2003 Yield		1994-2003		2003	1994-2003		
	bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.	
AC Sunbeam	32	100	99	[3]	48	103	103	[6]	102	101	[9]	
ACS-C7	33	105	91	[2]	43	93	85	[2]	99	88	[4]	
Hysyn® 110 (last grown in 2000)	31	97	102	[4]	50	110	103	[6]	103	102	[10]	
Hysyn® 111 (last grown in 2000)	32	101	110	[3]	46	100	106	[5]	100	108	[8]	
Reward	32	100	100	[7]	46	100	100	[10]	100	100	[17]	
SW Spirit River*	35	110	110	[1]	46	100	100	[1]	105	105	[2]	
Varieties not tested in 2003 (Averages 1989-2002)												
Last Year Tested												
41P55			90	[1]			101	[3]	(2001)	96	[4]	
AC Parkland			91	[2]			90	[4]	(2002)	90	[6]	
CASH			102	[4]			97	[6]	(2000)	99	[10]	
CHINOOK			81	[2]			91	[2]	(1995)	86	[4]	
Colt			98	[2]			95	[4]	(1994)	97	[6]	
FAIRVIEW			108	[2]			107	[5]	(2000)	107	[7]	
FOOTHILLS			93	[2]			92	[4]	(2001)	92	[6]	
Goldrush			87	[3]			93	[3]	(1996)	90	[6]	
Horizon			98	[2]			90	[4]	(1994)	94	[6]	
Klondike			97	[2]			97	[2]	(1995)	97	[4]	
MAVERICK			97	[4]			99	[7]	(2000)	98	[11]	
NORWESTER*							106	[2]	(1998)	106	[2]	
SHAMROCK*			83	[1]			98	[2]	(1999)	90	[3]	
SW High Level*			108	[1]			107	[2]	(2002)	107	[3]	
Valleyview			105	[1]			96	[4]	(2000)	100	[5]	
WESTWIN			94	[2]			108	[4]	(1998)	101	[6]	

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

* first year tested, very limited data available

Reward - check variety

** In 2003 these varieties were grown in 2 trials immediately beside each other, therefore statistics cannot be shown.
The yield CV's of the individual trials were: DC 4.96%, 4.61% FSJ 4.48%, 6.71%

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Polish Canola		Variety Descriptions					
Variety	Type	B.C. Peace Averages (1994 - 2003)		Straw Strength	Blackleg Tolerance	White Rust Resistance	Distributor
		Maturity (days to)	Height (cm)				
AC Sunbeam	OP	103	79	F	4	1	SeCan
ACS-C7	SYN	110	77	F	3	1	AAFC Sask
Hysyn® 110	SYN	104	105	F	4	1	Advanta
Hysyn® 111	SYN	106	97	F	4	3	Advanta
Reward	OP	106	91	F	4	1	SeCan
<i>SW Spirit River*</i>	OP	109	87	F	4	1	Peace Pedigreed
Varieties not tested in 2003 (Averages 1989-2002)							
41P55	OP	103	115	F	4	2	Agricore United
AC Parkland		101	77				SeCan
CASH	SYN	104	100	F	4	1	Moore Seed
CHINOOK		105	105	F	4	1	Monsanto
Colt		99	84				Agricore United
FAIRVIEW	SYN	104	97	F	4	3	Agricore United
FOOTHILLS	OP	107	86	F	4	1	Svalof Weibull
Goldrush		102	84	F	4	1	Agricore United
Horizon		99	79	F	4	4	Agricore United
Klondike		107	111	F	4	1	Agricore United
MAVERICK	OP	104	99	F	4	1	Agricore United
<i>NORWESTER*</i>		101	112	F	4	2	Prairie Seeds
<i>SHAMROCK*</i>		103	55	F	4	1	Svalof Weibull
<i>SW High Level*</i>	OP	112	94	F	4	1	Svalof Weibull
Valleyview	OP	104	91	F	4	2	Agricore United
WESTWIN	SYN	102	106	F	4	1	Libred

Reward - check variety

EX = excellent, **VG** = very good, **G** = good, **F** = fair, **P** = poor

1 = tolerant, **2** = moderately tolerant, **3** = moderately susceptible, **4** = susceptible, **5** = highly susceptible

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

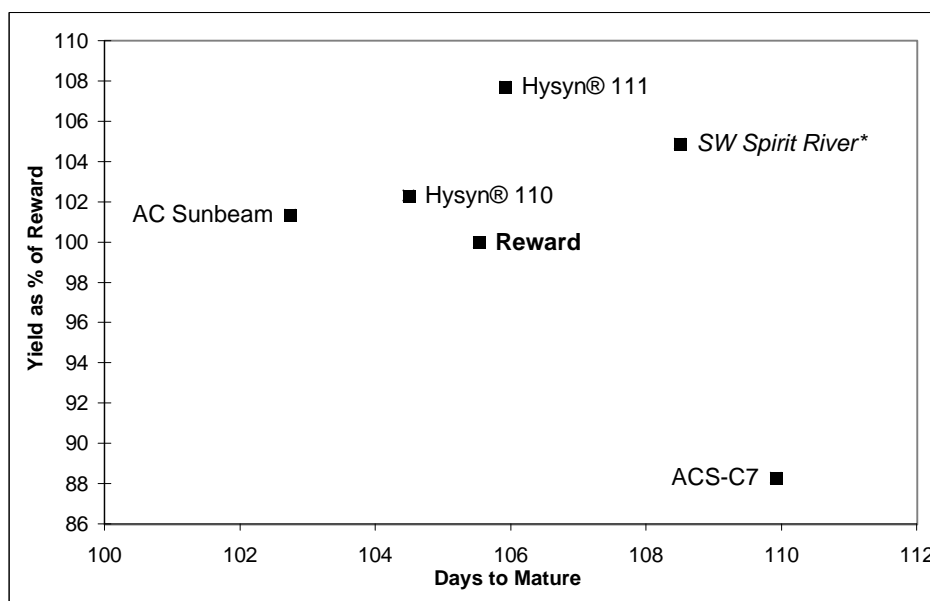
* first year tested, very limited data available

Polish Canola

B.C. Peace Variety

Performance

1994 - 2003



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ARGENTINE CANOLA

Argentine Canola (conventional)					Yield as % of 46A65 **					
Variety	Type	Dawson Creek			Fort St. John			B.C. Peace		
		2003	1997-2003		2003	1997-2003		2003	1997-2003	
		% of check	Avg. (%)	Stn. Yrs.	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
46A65	OP	100	100	[3]	100	100	[10]	100	100	[13]
46H02 *	HYB	115	115	[1]	103	99	[2]	109	107	[3]
Legacy	OP	95	91	[3]	95	100	[9]	95	95	[12]
Peace	OP	82	87	[2]	95	90	[4]	89	89	[6]
Y0276 *	HYB	92	92	[1]	108	108	[1]	100	100	[2]
Varieties not tested in 2003 (Averages 1996-2002) Yields as % of 46A65					Last Year Tested					
Agassiz*					102	[2]	(2000)	102	[2]	
Ascent*					105	[1]	(2000)	105	[1]	
BIANCA II*			82	[1]	107	[2]	(2002)	94	[3]	
Canterra™ 1492*			104	[1]	104	[2]	(2001)	104	[3]	
Foremost*					104	[1]	(2000)	104	[1]	
Hi-Q*			95	[1]	99	[2]	(2001)	97	[3]	
Hycore® 601*			102	[1]	106	[2]	(2001)	104	[3]	
HY-PER Star 100*					96	[1]	(2000)	96	[1]	
IMC 105 *			97	[1]	101	[1]	(2001)	99	[2]	
3311*			102	[1]	102	[2]	(2001)	102	[3]	
LBD279*			102	[1]	104	[1]	(2001)	103	[2]	
LoLinda*					87	[1]	(2002)	87	[1]	
Magellum*					97	[1]	(2000)	97	[1]	
Magnum			109	[2]	102	[5]	(2000)	106	[7]	
MillenniUM 03*					91	[1]	(2002)	91	[1]	
Q2			95	[2]	106	[7]	(2002)	101	[9]	
Skyhawk			96	[1]	105	[3]	(2002)	101	[4]	
SP Armada*			100	[1]	106	[2]	(2002)	103	[3]	
SW 5001*			97	[1]	99	[2]	(2001)	98	[3]	
Thunder*			103	[1]	105	[2]	(2001)	104	[3]	
** 46A65 - check variety - new as of 2003					SYN = Synthetic HYB = Hybrid					
* caution, first year tested and or very limited data available					OP = Open Pollinated					

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** As of 2003, canola varieties will be 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. You can cross-reference yield data from pages 23, 24, and 25 because we show yields as percentages against a common check. *Legacy* yield also appears in the graph on page 28.

HERBICIDE TOLERANT CANOLA

Argentine Canola (herbicide tolerant)		Yield as % of 46A65								
Variety	Type	Dawson Creek			Fort St. John			B.C. Peace		
		2003	1997-2003		2003	1997-2003		2003	1997-2003	
		% of check	Avg. (%)	Stn. Yrs.	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
46A65	conventional	100	100	[3]	100	100	[10]	100	100	[13]
225RR	Roundup Ready®	104	99	[2]	98	100	[4]	101	100	[6]
3235	Roundup Ready®	105	98	[2]	94	93	[4]	99	96	[6]
34-55	Roundup Ready®	99	99	[2]	99	99	[4]	99	99	[6]
43A56 *	Roundup Ready®	103	103	[1]	99	99	[1]	101	101	[2]
45H21 *	Roundup Ready®	117	117	[1]	103	104	[2]	110	111	[3]
46H23 *	Roundup Ready®	116	116	[1]	96	96	[1]	106	106	[2]
512RR (Z0705) *	Roundup Ready®	99	99	[1]	111	111	[1]	105	105	[2]
9550 (PR6336) *	Roundup Ready®	110	110	[1]	90	90	[1]	100	100	[2]
Canterra™ 1841 *	Roundup Ready®	108	108	[1]	109	114	[2]	108	111	[3]
Canterra™ 1862 *	Roundup Ready®	107	107	[1]	101	99	[2]	104	103	[3]
Fortune RR (SL13778) *	Roundup Ready®	102	102	[1]	93	93	[1]	98	98	[2]
IMC109RR *	Roundup Ready®	93	93	[1]	82	91	[2]	88	92	[3]
IMC208RR *	Roundup Ready®	81	81	[1]	72	78	[2]	76	79	[3]
LBD422RR *	Roundup Ready®	119	119	[1]	101	101	[1]	110	110	[2]
LBD449RR	Roundup Ready®	93	92	[2]	99	98	[2]	96	95	[4]
LBD588RR *	Roundup Ready®	85	85	[1]	98	98	[1]	92	92	[2]
LBD644RR *	Roundup Ready®	119	119	[1]	108	108	[1]	114	114	[2]
Prairie 719RR *	Roundup Ready®	104	104	[1]	102	102	[1]	103	103	[2]
SP Banner *	Roundup Ready®	101	101	[1]	99	95	[2]	100	98	[3]
SP Canwood (NR00-1040) *	Roundup Ready®	98	98	[1]	93	93	[1]	96	96	[2]
SW ARROW	Roundup Ready®	100	100	[1]	105	103	[4]	102	102	[5]
SW GladiatoRR	Roundup Ready®	82	95	[2]	90	104	[3]	86	99	[5]
SW RideR	Roundup Ready®	94	99	[2]	93	104	[4]	94	101	[6]
v1010 (CNH501R) *	Roundup Ready®	100	100	[1]	99	99	[1]	99	99	[2]
InVigor® 2573	LibertyLink®	85	101	[2]	115	115	[4]	100	108	[6]
InVigor® 2663	LibertyLink®	86	100	[2]	113	112	[4]	100	106	[6]
InVigor® 2733*	LibertyLink®	86	86	[1]	118	112	[2]	102	99	[3]
InVigor® 5003 (RHY01/895) *	LibertyLink®	104	104	[1]	121	121	[1]	112	112	[2]
InVigor® 5020 (RHY01/597) *	LibertyLink®	146	146	[1]	120	120	[1]	133	133	[2]
InVigor® 5030 (PHS01-403) *	LibertyLink®	109	109	[1]	117	117	[1]	113	113	[2]
46A76*	Clearfield®	95	95	[1]	103	100	[2]	99	97	[3]
6045CL *	Clearfield®	93	93	[1]	94	94	[1]	93	93	[2]
Cougar CL (A01-144NI) *	Clearfield®	94	94	[1]	97	97	[1]	95	95	[2]

46A65 - check variety - new as of 2003

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

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Clearfield® is a registered trademark of BASF

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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 = 6.94%, 10.24%, 6.65% FSJ = 5.35%, 8.36%, 5.36%

Argentine Canola (herbicide tolerant)		Yield as % of 46A65					
Variety	Type	<u>Dawson Creek</u>		<u>Fort St. John</u>		<u>B.C. Peace</u>	
		<u>2000-2002</u>		<u>2000-2002</u>		<u>2000-2002</u>	
		Avg. (%)	Stn. Yrs.	Avg. (%)	Stn. Yrs.	Avg. (%)	Stn. Yrs.
<u>Varieties not tested in 2003 (Averages 1997-2002)</u>		<u>Last Year Tested</u>					
45A55*	Roundup Ready®	97	[1]	92	[2]	(2002)	95 [3]
45H22 (NS4422HC) *	Roundup Ready®			96	[1]	(2002)	96 [1]
505RR *	Roundup Ready®			123	[1]	(2002)	123 [1]
519RR *	Roundup Ready®			119	[1]	(2002)	119 [1]
Canterra™ 1812*	Roundup Ready®	97	[1]	109	[2]	(2002)	103 [3]
Canterra™ 1849*	Roundup Ready®			92	[1]	(2002)	92 [1]
Canterra 1867*	Roundup Ready®	90	[1]	101	[2]	(2002)	96 [3]
Conquest	Roundup Ready®	90	[1]	98	[3]	(2002)	94 [4]
DeKlab® 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]
Kelsey (A99-15NR)*	Roundup Ready®	98	[1]	79	[2]	(2002)	88 [3]
LBD561RR*	Roundup Ready®	96	[1]	98	[2]	(2002)	97 [3]
LBD612RR *	Roundup Ready®			104	[1]	(2002)	104 [1]
Prairie 715RR *	Roundup Ready®			95	[1]	(2002)	95 [1]
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 (NR98-6647) *	Roundup Ready®			109	[1]	(2002)	109 [1]
SW RazoR	Roundup Ready®	94	[1]	100	[3]	(2002)	97 [4]
SW WaRRior*	Roundup Ready®			99	[1]	(2002)	99 [1]
35-25 *	Roundup Ready®	94	[1]	98	[1]	(2001)	96 [2]
295 BX*	Navigator/Compas®	90	[1]	99	[2]	(2001)	94 [3]
Armour BX*	Navigator/Compas®	96	[1]	100	[2]	(2001)	98 [3]
Cartier BX*	Navigator/Compas®	92	[1]	98	[2]	(2001)	95 [3]
Renegade BX *	Navigator/Compas®	99	[1]	104	[1]	(2001)	102 [2]
Zodiac BX*	Navigator/Compas®	85	[1]	97	[2]	(2001)	91 [3]
SW Flare LL *	LibertyLink®	98	[1]	105	[2]	(2002)	102 [3]
243 CL *	Clearfield®	96	[1]	108	[2]	(2002)	102 [3]
289 CL *	Clearfield®			100	[1]	(2002)	100 [1]
45A71 (NS4571) *	Clearfield®			85	[1]	(2002)	85 [1]
45A77*	Clearfield®	105	[1]	112	[2]	(2002)	108 [3]
Canterra™ 1604 CL *	Clearfield®			114	[1]	(2002)	114 [1]
SP Bobcat CL *	Clearfield®			113	[1]	(2002)	113 [1]

46A65 - check variety

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

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Argentine Canola				Variety Descriptions					
Variety	Type	Herbicide Tolerance	B.C. Peace Avg. (1996-2003**)		Data from Alberta Agdex 100/32			Distributor	
			Days to Mature	Height (cm)	Days to Swathing	Straw Strength	Blackleg Tolerance		
<input type="checkbox"/> 225RR (HyLite 225RR)	OP	Roundup Ready®	121	101	108	EX	2	Advanta	
■ 3235 (DKL32-35, LG3235)	OP	Roundup Ready®	121	105	110	G	2	Monsanto	
■ 34-55 (DKL34-55, LG3455)	OP	Roundup Ready®	125	108	113	VG	2	Monsanto	
<input type="checkbox"/> 43A56 *	OP	Roundup Ready®	110	93	102			Pioneer Hi-Bred	
45H21 *	HYB	Roundup Ready®	117	96	108	EX	1	Pioneer Hi-Bred	
■ 46A65	OP	(Conventional)	119	98	105	G	1	Pioneer Hi-Bred	
■ 46A76*	OP	Clearfield®	124	110	114	EX	1	Pioneer Hi-Bred	
46H02*	HYB	(Conventional)	121	96	110	VG	1	Pioneer Hi-Bred	
46H23 *	HYB	Roundup Ready®	120	106	112			Pioneer Hi-Bred	
512RR (Z0705) *	HYB	Roundup Ready®	119	107	109			Advanta	
6045CL *	OP	Clearfield®	118	100	110			Brett-Young	
9550 (PR6336) *	OP	Roundup Ready®	120	107	109			Agricore United	
Canterra™ 1841*	HYB	Roundup Ready®	121	105	110	EX	1	Canterra	
<input type="checkbox"/> Canterra™ 1862*	OP	Roundup Ready®	123	84	108	VG	2	Canterra	
<input type="checkbox"/> Cougar CL (A01-144NI) *	OP	Clearfield®	120	97	111			Sask Wheat Pool	
Fortune RR (SL13778) *	OP	Roundup Ready®	119	99	109			Secan	
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 (Aventis)	
InVigor® 2663	HYB	LibertyLink®	122	106	103	VG	1	Bayer CropScience (Aventis)	
InVigor® 2733*	HYB	LibertyLink®	121	91	103	VG	2	Bayer CropScience (Aventis)	
InVigor® 5003 (RHY01/895) *	HYB	LibertyLink®	106	86	97			Bayer CropScience (Aventis)	
InVigor® 5020 (RHY01/597) *	HYB	LibertyLink®	114	98	106			Bayer CropScience (Aventis)	
InVigor® 5030 (PHS01-403) *	HYB	LibertyLink®	119	116	111			Bayer CropScience (Aventis)	
LBD422RR *	OP	Roundup Ready®	119	93	110			Brett-Young	
LBD449RR	OP	Roundup Ready®	120	93	107	EX	1	Brett-Young	
LBD588RR *	OP	Roundup Ready®	121	108	113			Brett-Young	
LBD644RR *	OP	Roundup Ready®	115	93	105			Brett-Young	
Legacy	OP	(Conventional)	123	107	114	G	3	Agricore United	
■ Peace	OP	(Conventional)	113	96	98	VG	2	Sask Wheat Pool	
Prairie 719RR *	OP	Roundup Ready®	114	102	107			Prairie Seeds	
<input type="checkbox"/> SP Banner*	OP	Roundup Ready®	117	97	109	EX	1	Sask Wheat Pool	
<input type="checkbox"/> SP Canwood (NR00-1040) *	OP	Roundup Ready®	117	93	108			Sask Wheat Pool	
<input type="checkbox"/> SW ARROW	OP	Roundup Ready®	120	102	108	G	3	Agricore United	
SW GladiatoRR	SYN	Roundup Ready®	121	92	100	VG	2	Quality Assured Seeds	
SW RideR	SYN	Roundup Ready®	124	107	111	VG	3	Agricore United	
v1010 (CNH501R) ^A	HYB	Roundup Ready®	120	106	111			Cargill Specialty Oils	
Y0276 *	HYB	(Conventional)	118	106	110			Advanta	

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

EX = excellent, VG = very good, G = good, F = fair, P = poor
 1 = tolerant, 2 = moderately tolerant, 3 = moderately susceptible, 4 = susceptible, 5 = highly susceptible
 OP = open pollinated, SYN = synthetic, HYB = hybrid

- Protection by Plant Breeders' Rights
- Protection under Plant Breeders' Rights applied for

^ LowLin variety

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

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 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 that the *days to maturity* data is composed of multiple years; however, the *days to swathing* data is created from only 2003 at two sites. Therefore, do not try to subtract the two values to see how many days it took to dry down. Such *swathing* data will be collected from now on, but until averages are strengthened by more years data, view it for interest sake only.

Note canola *maturity* is always *physiological maturity*, (when the top seeds of the plant have changed seed coat colour), and not necessarily "combine-ready".

Argentine Canola			Variety Descriptions				
<input type="checkbox"/>	Protected by Plant Breeders' Rights applied for		B.C.Peace Avg. (1996-2002**)		Data from Alberta Agdex 100/32		
<input checked="" type="checkbox"/>	Protected by Plant Breeders' Rights		Days to Mature	Height cm	Straw Strength	Blackleg Tolerance	Distributor
Variety	Type	Herbicide Tolerance					
<u>Varieties not tested in 2003 (Averages 1996-2002 **)</u>							
243 CL *	OP	Clearfield®	135	88	EX	3	Advanta
■ 289CL*		Clearfield®	125	88	G	1	Advanta
295 BX*	OP	Navigator/Compas®	125	122	G	3	Bonis & Co.
■ 45A55*	OP	Roundup Ready®	131	85	G	1	Agricore United
■ 45A71 (NS4571)*	OP	Clearfield®	115	95	G	3	Agricore United
■ 45A77*	OP	Clearfield®	133	90			Agricore United
45H22 (NS4422HC)*	HYB	Roundup Ready®	125	92			Agricore United
505RR*	HYB	Roundup Ready®	133	102			Advanta
519RR*	HYB	Roundup Ready®	127	90			Advanta
Agassiz*	OP	(conventional)	125	124	G	2	Libred
Armour BX*	OP	Navigator/Compas®	123	120	G	3	Bonis & Co.
Ascent*	OP	(conventional)	120	128	G	3	Libred
■ 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
Cartier BX*	OP	Navigator/Compas®	123	121	G	2	Bonis & Co.
Conquest	OP	Roundup Ready®	125	118	EX	1	Agricore United
■ DeKlab® 35-85*	OP	Roundup Ready®	128	92	EX	1	Monsanto
■ DS-Roughrider*	OP	Roundup Ready®	130	112	EX	3	SeCan
Foremost*	OP	(conventional)	121	124	VG	2	Seed-Link
Heritage*	OP	Roundup Ready®	127	124	VG	2	IMC Cargill
■ Hi-Q*	OP	(conventional)	126	121	EX	1	Agricore United
Hycore® 601*	HYB	(conventional)	131	129	VG	2	Agricore United
Hyola® 454RR*	HYB	Roundup Ready®	126	127	VG	2	Advanta
HY-PER Star 100*	HYB	(conventional)	119	117	VG	3	Agriprogress
IMC 105*	OP	(conventional)	133		VG	3	IMC Cargill
IMC106RR *	OP	Roundup Ready®	134		VG	2	IMC Cargill
Kelsey (A99-15NR)*	OP	Roundup Ready®	124	103	EX	2	Agricore United
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
3311*	OP	(conventional)	123	118	G	1	Monsanto
35-25 *	-	Roundup Ready®	134		VG	2	Monsanto
■ LoLinda*	OP	(conventional)	138	85	VG	1	Bonis & Co.
Magellum*	OP	(conventional)	123	126	G	3	IMC Cargill
Magnum	OP	(conventional)	120	116	G	2	Monsanto
MillenniUM 03*	HEAR	(conventional)	128	80			CanAmera Foods
Prairie 715RR*		Roundup Ready®	125	95	VG	1	Prairie Seeds
■ Q2	OP	(conventional)	126	101	EX	1	Agricore United
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 Bobcat CL*	OP	Clearfield®	123	93			Sask Wheat Pool
<input type="checkbox"/> SP Bucky (NR98-6647)*		Roundup Ready®	131	83	VG	1	Sask Wheat Pool
<input type="checkbox"/> SW Flare LL *	OP	LibertyLink®	128	93	VG	2	Bonis & Co.
SW RazoR	SYN	Roundup Ready®	125	106	VG	2	Bonis & Co.
SW WaRRior *	OP	Roundup Ready	117	106	VG	2	Quality Assured Seeds
SW 5001*	HYB	(conventional)	126	130	VG	1	Bonis & Co.
Thunder*	OP	(conventional)	126	126	G	2	DSV Canada
Zodiac BX*	OP	Navigator/Compas®	127	127	G	2	Bonis & Co.

1996-2002** = averaged data period for conventional types, 1998-2002 for herbicide tolerant types.

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

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

1 = tolerant, 2 = moderately tolerant, 3 = moderately susceptible, 4 = susceptible, 5 = highly susceptible

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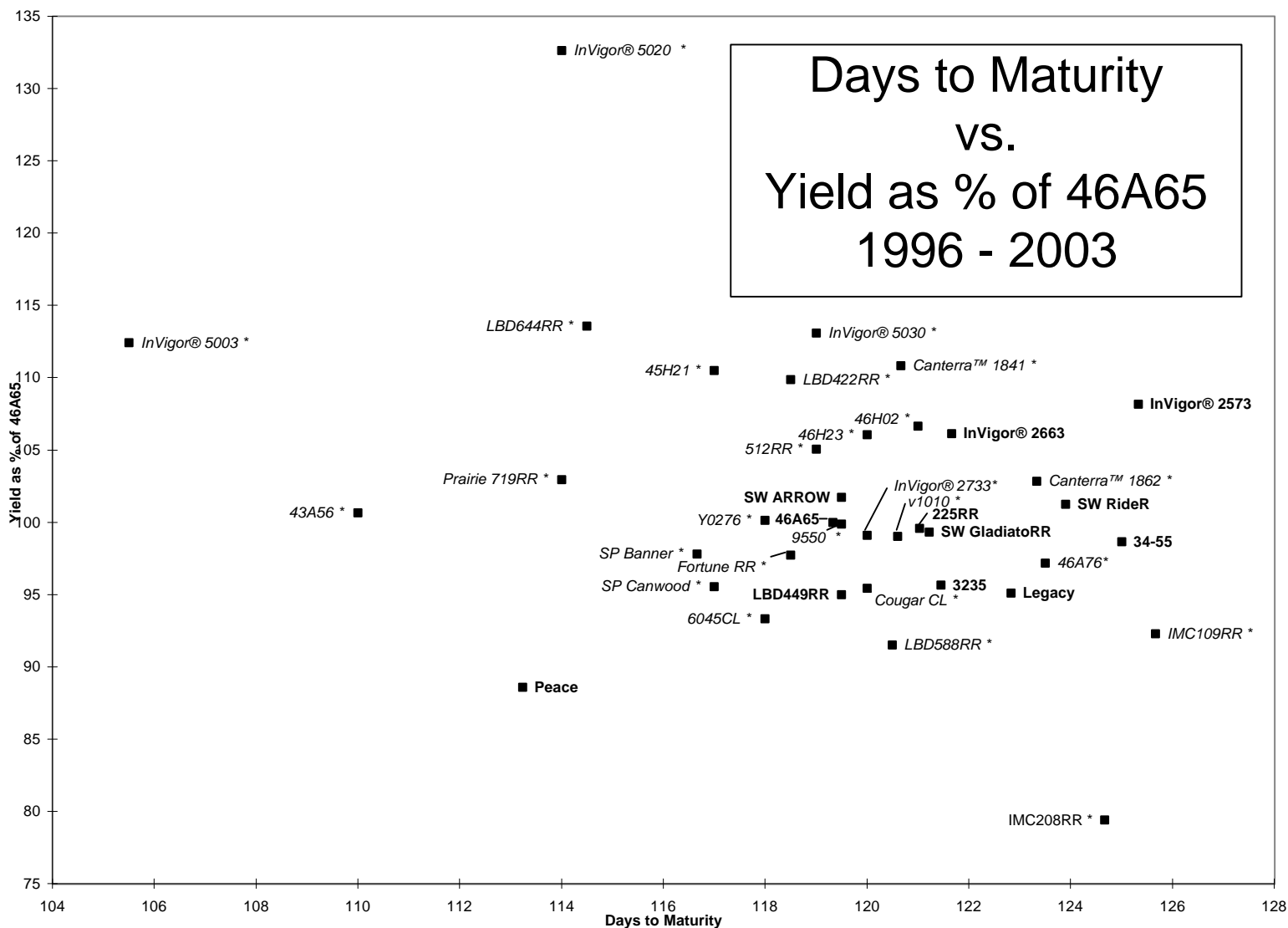
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Argentine Canola

B.C. Peace River - Variety Performance 1996-2003



* First Year tested, limited data available
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Field Pea (Yellow Seed)

Yield as % of Carrera **

Variety	***Designated Powdery Mildew Resistant	Dawson Creek				Fort St. John				B.C. Peace			
		2003 Yield		1999-2003		2003 Yield		1999-2003		2003	1999-2003		
		bus /	% of	Avg.	Stn.	bus /	% of	Avg.	Stn.	Avg.	Avg.	Stn.	
		acre	check	(%)	Yrs.	acre	check	(%)	Yrs.	(%)	(%)	Yrs.	
Carneval		78 ab	96	98	[3]	71 b-e	87	86	[4]	92	92	[7]	
Carrera		81 a	100	100	[4]	82 a	100	100	[5]	100	100	[9]	
CDC Bronco*	yes	80 ab	98	98	[1]	68 cde	83	83	[1]	91	91	[2]	
CDC Golden*	yes	69 c-f	85	85	[1]	72 b-e	88	88	[1]	86	86	[2]	
CDC Minuet (Last tested 2001)	yes	74 a-d	91	81	[2]	71 b-e	88	84	[3]	89	83	[5]	
Cutlass*	yes	80 ab	98	98	[1]	75 a-d	92	92	[1]	95	95	[2]	
DELTA		76 abc	94	89	[4]	73 a-e	89	96	[5]	91	93	[9]	
DS-Admiral	yes	65 def	80	87	[3]	75 a-d	92	94	[3]	86	90	[6]	
DS-Stalworth	yes	64 ef	78	88	[3]	76 a-d	93	92	[4]	86	90	[7]	
Eclipse	yes	79 ab	98	94	[3]	81 ab	99	94	[4]	98	94	[7]	
SW BRAVO		73 a-d	90	83	[4]	67 de	81	86	[5]	86	85	[9]	
SW CAPRI		71 b-f	88	84	[2]	76 abc	93	95	[2]	90	89	[4]	
SW CIRCUS		72 b-e	89	90	[2]	67 cde	82	91	[2]	86	90	[4]	
SW SALUTE		72 b-e	89	92	[3]	63 e	78	91	[3]	83	92	[6]	
Swing		68 c-f	84	91	[4]	73 a-e	89	96	[5]	86	93	[9]	
Topeka	yes	77 ab	95	90	[3]	63 e	77	81	[3]	86	86	[6]	
LSD (P=.05) =		8.77				9.54							
CV value (%) =		8.44				9.38							

Varieties not tested in 2003 (Averages 1999-2002)

Last Year Tested

Alfetta				75	[1]			100	[1]	(2002)	88	[2]
Cobra				96	[2]			95	[3]	(2001)	96	[5]
CROMA				91	[1]			96	[1]	(2002)	93	[2]
Integra				97	[2]			95	[3]	(2001)	96	[5]
MARIBU				87	[2]			97	[2]	(2002)	92	[4]
MIAMI				94	[2]			95	[3]	(2001)	94	[5]
NICOLE				94	[2]			92	[3]	(2001)	93	[5]

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

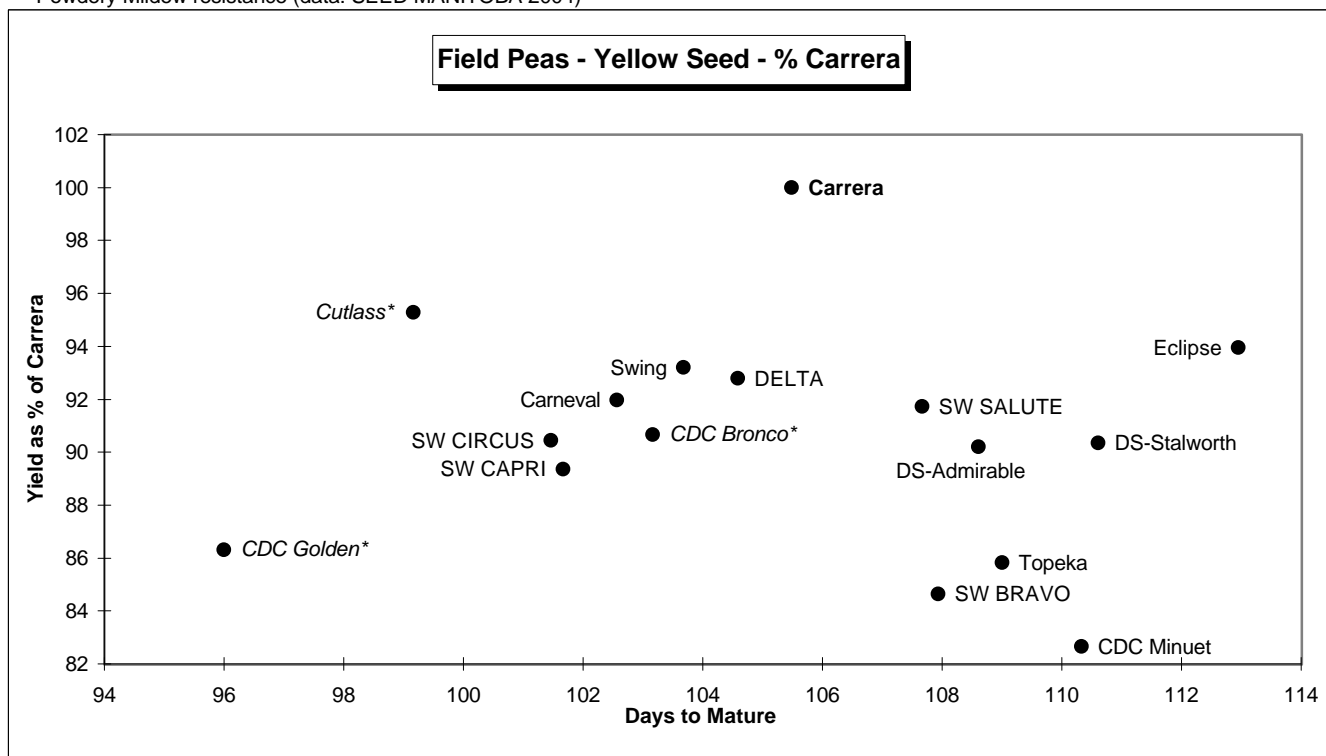
* first year tested, very limited data available.

**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 (data: SEED MANITOBA 2004)

Carrera - check variety



Field Pea (Green Seed)

Yield as % of Nitouche **

Variety	***Designated Powdery Mildew Resistant	Dawson Creek				Fort St. John				B.C. Peace		
		2003 Yield		1999-2003		2003 Yield		1999-2003		2003	1999-2003	
		bus /	% of	Avg.	Stn.	bus /	% of	Avg.	Stn.	Avg.	Avg.	Stn.
		acre	check	(%)	Yrs.	acre	check	(%)	Yrs.	(%)	(%)	Yrs.
Careneval (yellow pea)		73 b	116	103	[3]	76 ab	111	109	[3]	113	106	[6]
CDC Striker*		63 ef	101	101	[1]	67 bc	98	98	[1]	100	100	[2]
Espace		66 de	106	100	[4]	76 ab	111	110	[5]	108	105	[9]
Logan		62 f	98	95	[3]	69 abc	101	99	[4]	100	97	[6]
Madoc		70 bcd	111	107	[2]	71 ab	104	106	[2]	108	106	[4]
Millenium		72 bc	115	108	[3]	78 a	114	109	[4]	114	108	[7]
Nessie*		69 cd	110	110	[1]	71 ab	103	103	[1]	107	107	[2]
Nitouche		63 ef	100	100	[4]	69 abc	100	100	[5]	100	100	[9]
Stratus	yes	87 a	138	115	[3]	51 d	74	80	[3]	106	98	[6]
TOLEDO		61 f	97	95	[4]	69 abc	101	96	[5]	99	95	[9]
LSD (P=.05) =		3.74				10.42						
CV value (%) =		3.77				10.5						
<u>Most recent varieties not tested in 2003 (Averages 1999-2002)</u>												
BLUEBIRD	yes			88	[2]			85	[2]	(2002)	86	[4]
CDC Montero	yes			63	[1]			72	[1]	(2001)	68	[2]
Cruiser*				99	[1]			107	[1]	(2002)	103	[2]
DS-Dominator *	yes			21	[1]			52	[2]	(2001)	37	[3]
FABIA				110	[2]			105	[2]	(2002)	108	[4]
SCUBA				88	[2]			99	[3]	(2001)	94	[5]
SW PARADE	yes			93	[2]			98	[3]	(2001)	95	[5]
Venture				100	[1]			96	[2]	(2001)	98	[3]

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

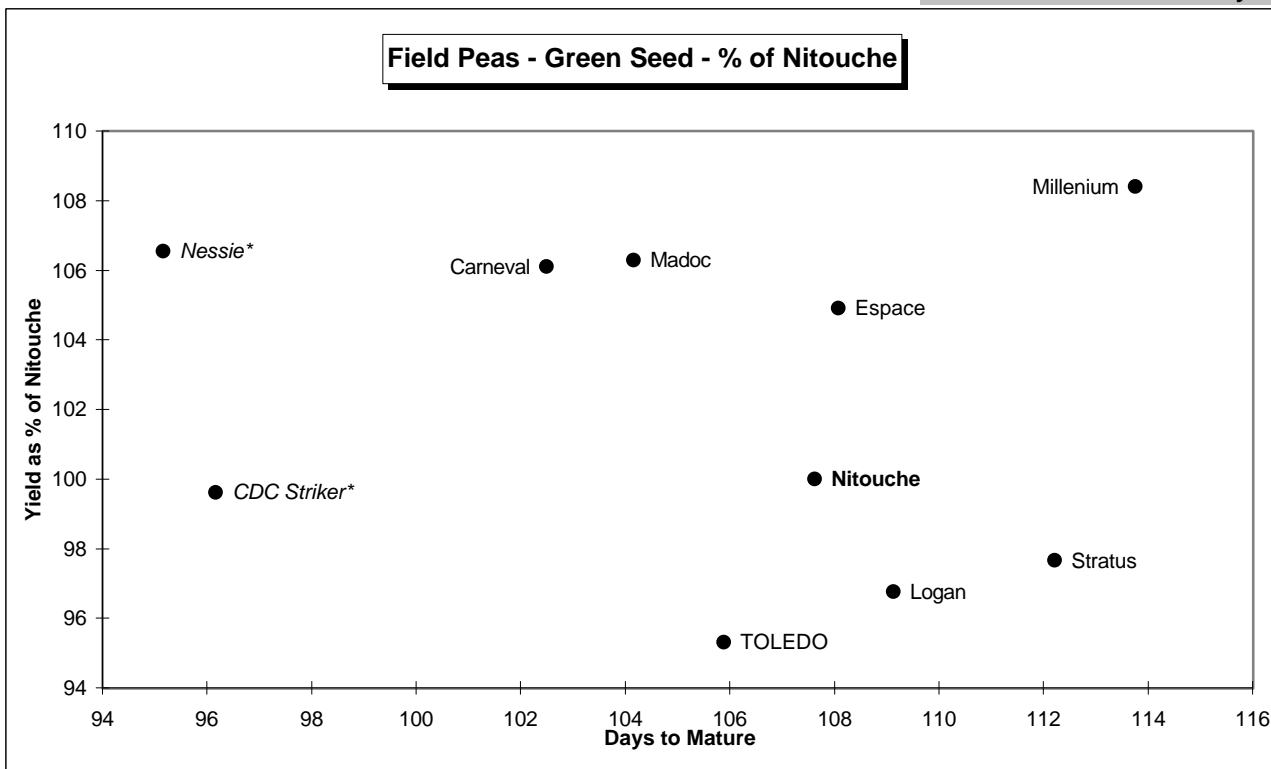
* first year tested, very limited data available

**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 Designation data: SEED MANITOBA 2004

Nitouche - check variety



Field Peas		Variety Descriptions							
Variety	B.C.Peace Averages			1997-		DC Site 2001-2003			Distributor
	Days to Mature	1996-2003		2003	2001	0-9 scale (0=nil)**			
		Height cm	Lodging 0-9(flat)	1000 k grams	Protein %	Mycosphaerella Blight	Powdery Mildew		
Yellow Seed									
■ Carneval	103	72	1.7	235		1.0	2.9	Bonis & Co	
■ Carrera	105	54	2.7	282	26.7	3.8	3.6	Canseed	
CDC Bronco*	103	74	1.8	251			0.0	Sask Pulse Growers	
CDC Golden*	96	78	2.6	244			0.7	Sask Pulse Growers	
CDC Minuet	110	78	3.6	206	26.5	3.7	0.0	Sask Pulse Growers	
Cutlass*	99	77	2.0	269			0.3	AAFRD	
■ DELTA	105	61	2.2	258	27.3	3.5	3.7	Quality Assured	
■ DS-Admiral	109	80	2.4	265	26.6	2.0	0.2	Agriprogress	
DS-Stalwarth	111	78	2.2	256	26.0	2.8	1.3	Agriprogress	
■ Eclipse	113	74	1.4	271	22.9	2.8	0.4	Quality Assured	
■ SW BRAVO	108	70	1.3	267	27.0	2.6	3.6	Bonis & Co	
□ SW CAPRI	102	71	0.8	236		2.3	4.0	Bonis & Co	
□ SW CIRCUS	101	70	1.8	251		2.0	3.8	Bonis & Co	
□ SW SALUTE	108	77	3.9	247	26.2	2.7	0.0	Bonis & Co	
■ Swing	104	66	3.4	261	26.3	2.8	4.2	Canseed	
□ Topeka	109	61	4.7	292	26.2	2.8	0.5	Canterra	
Green Seed									
■ Carneval (y)	103	70	1.7	237		1.0	2.0	Bonis & Co	
CDC Striker*	96	78	1.6	251			5.7	Sask Pulse Growers	
■ Espace	108	66	2.0	242	25.7	2.3	4.5	Bob Park	
Logan	109	75	0.9	196	27.0	2.3	3.6	Agricore United	
■ Madoc	104	61	0.8	289		1.0	2.9	Terramax	
■ MILLENNIUM	114	54	2.1	277	27.3	3.2	3.1	Terramax	
□ Nessie*	95	73	2.1	270			3.8	Bonis & Co	
■ Nitouche	108	72	2.0	286	27.3	3.5	4.3	Canseed	
□ Stratus	112	61	3.5	294	27.2	4.2	0.8	Canterra	
■ TOLEDO	106	67	2.0	292	26.7	3.3	3.0	Canterra	
Varieties not tested in 2003 (Averages 1997-2002)									
■ Alfetta	107	55	2	331		2.0	2.0	Quality Assured	
□ BLUEBIRD (g)	114	55	3	275	26.2	3.2	0.2	Bob Park	
CDC Montero (g)	117	76	5	206	27.0	4.0	3.0	Sask Pulse Growers	
Cobra	109	68	3	240	26.5	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	24.9	3.3	0.0	Agriprogress	
FABIA (g)	118	75	1	256	26.1	2.3	4.3	Bob Park	
■ Integra	106	68	2	278	26.5	3.0	1.7	Bob Park	
□ MARIBU	118	73	2	283	25.5	2.5	2.3	Bob Park	
■ MIAMI	106	66	2	244	26.4	3.3	4.7	Advanta	
■ NICOLE	106	44	4	273	26.3	5.3	2.3	Advanta	
■ SCUBA (g)	110	68	2	231	26.4	4.0	4.0	Advanta	
■ SW PARADE (g)	111	64	4	203	26.7	4.0	2.7	Bonis & Co	
■ Venture (g)	120	76	3	229	26.3	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.

□ Protection under Plant Breeders' Rights applied for

■ Protected by Plant Breeders' Rights

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

* first year tested, very limited data available

FLAX

Fields of flax have been successfully grown in our region for many years, however growing flax in the B.C. Peace River region is still at present a risky venture. Large acreage should be discouraged until further breeding programs have resulted in earlier maturing varieties. The B.C. Grain Producers Association is looking into the development of earlier varieties and, therefore, this information is being provided here.

Variety	Yield as % of NORLIN														Variety Descriptions		
	Dawson Creek					Fort St. John					B.C. Peace			Maturity Height (days to)		Height (cm)	Distributor
	2003 Yield	2001-2003				2003 Yield	2001-2003				2003	2001-2003					
bus / acre	% of Check	Avg. stn (%)	stn	yr	bus / acre	% of Check	Avg. stn (%)	stn	yr	Avg. (%)	Avg. (%)	stn	yr	yr	yr		
■ 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	
NorLin	26 a	100	100	[3]	31 ab	100	100	[3]	100	100	[6]	129	57			SeCan	
■ 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												
Varieties not tested in 2003 (2001 - 2002)																	
■ 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	
Last Year Tested																	

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

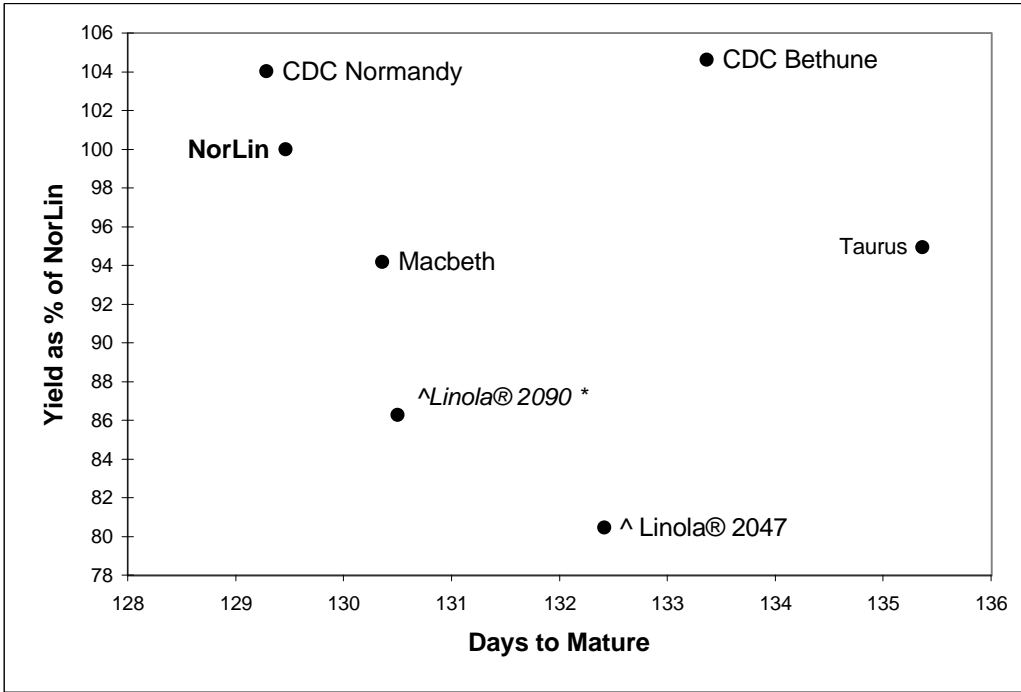
NorLin - check variety

- Protected by Plant Breeders' Rights
- Protection under Plant Breeders' Rights applied for

* first year tested, very limited data available
 ^ Solin type

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- 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 P₂O₅ - 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.

Summary of 2003 Trials

(Information used for this report)

Regional Variety Trials	Site	Varieties	Replicates	Plots	Source
Regional 2 Row Barley	DC	19	4	76	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	11	4	44	Gayah Sieusahai - AAFR - CDC North *
Regional CWRS Wheat (HRSW)	DC	21	4	84	Gayah Sieusahai - AAFR - CDC North *
Regional CPS / CWES Wheat	DC	9	4	36	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	4	4	16	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #1	DC	16	4	64	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #2	DC	16	4	64	Raymond Gadoua - Canola Council of Can.
BCGPA Napus Comparison	DC	11	4	44	BCGPA Research Department
Regional Flax	DC	7	4	28	Gayah Sieusahai - AAFR - CDC North *
Regional Green Field Pea	DC	11	4	44	Gayah Sieusahai - AAFR - CDC North *
Regional Yellow Field Pea	DC	17	4	68	Gayah Sieusahai - AAFR - CDC North *
Regional 2 Row Barley	FSJ	19	4	76	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	11	4	44	Gayah Sieusahai - AAFR - CDC North *
Regional CWRS Wheat (HRSW)	FSJ	21	4	84	Gayah Sieusahai - AAFR - CDC North *
Regional CPS / CWES Wheat	FSJ	9	4	36	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	4	4	16	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #1	FSJ	16	4	64	Raymond Gadoua - Canola Council of Can.
Prairie-Wide Napus Canola #2	FSJ	16	4	64	Raymond Gadoua - Canola Council of Can.
BCGPA Napus Comparison	FSJ	11	4	44	BCGPA Research Department
Regional Flax	FSJ	7	4	28	Gayah Sieusahai - AAFR - CDC North *
Regional Green Field Pea	FSJ	11	4	44	Gayah Sieusahai - AAFR - CDC North *
Regional Yellow Field Pea	FSJ	17	4	68	Gayah Sieusahai - AAFR - CDC North *

* some entries sourced by BCGPA directly

(Data used for Plant Breeding and Variety Registration Support)

Varietal Development	Site	Varieties	Replicates	Plots	Source
B-y5 Barley Pre-Co-op (Jim Helm)	DC	22	3	66	Donna Westling - AAFRCDC Lacombe
2-Row Western Co-op Barley	DC	36	3	108	Bryan Harvey - U of S Malt B Prgm
6-row Western Co-op Barley	DC	25	3	75	Mario Therrien - Ag Canada Brandon
Canola Council of Canada Napus NE1 Co-op	DC	5	4	20	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS1 Co-op	DC	25	4	100	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS2 Co-op	DC	25	4	100	Raymond Gadoua - Canola Council of Can.
Canola Council of Canada Napus NS3 Co-op	DC	25	4	100	Raymond Gadoua - Canola Council of Can.
ADVANTA - MAT napus trial	DC	30	4	120	Chris Anderson - ADVANTA - Winnipeg
Early Wheat CWES-A2 (3m plots)	FSJ	16	2	32	Gavin Humphreys - AAFC Winnipeg
Early Wheat CBW-A2 (3m plots)	FSJ	30	2	60	Steve Fox - AAFC Winnipeg
Early Wheat PEF6PR (3m plots)	FSJ	75	1	75	Gavin Humphreys - AAFC Winnipeg
Early Wheat PEF8PR3 (3m plots)	FSJ	80	1	80	Gavin Humphreys - AAFC Winnipeg
Early Oat Pre-Co-op (3m plots)	DC	25	3	75	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	27	3	81	Dr. Dengjin Bing - MRC Morden
Early Flax CFET A	FSJ	25	3	75	Dr. Scott Duguid - MRC Morden
Early Flax CFET B	DC	25	3	75	Dr. Scott Duguid - MRC Morden
Early Flax Preliminary A	DC	25	3	75	Dr. Scott Duguid - MRC Morden
Early Flax Preliminary B	DC	25	3	75	Dr. Scott Duguid - MRC Morden
Early Flax Preliminary A	FSJ	25	3	75	Dr. Scott Duguid - MRC Morden
Early Flax Preliminary B	FSJ	25	3	75	Dr. Scott Duguid - MRC Morden

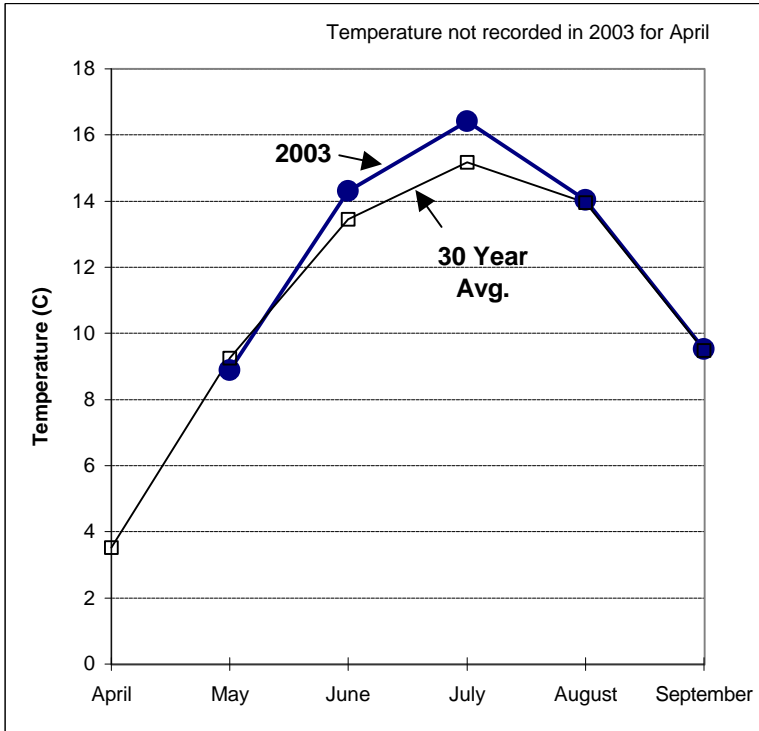
Varietal Development continued ...	Site	Varieties	Replicates	Plots	Source
Parkland 'C' Wheat Co-op	DC	24	3	72	Alanna Olson - AAFC Beaverlodge
Parkland 'C' Wheat Co-op	FSJ	24	3	72	Alanna Olson - AAFC Beaverlodge
AGRICORE UNITED Wheat Marketing	DC	25	4	100	Kevin McCallum-Agricore United(Calgary)
AGRICORE UNITED 2R Barley (Co-op 1)	DC	22	3	66	Jim Anderson - Agricore United (Calgary)
AGRICORE UNITED 6R Barley (Co-op 2)	DC	25	3	75	Jim Anderson -Agricore United (Calgary)
AGRICORE UNITED Northern Solin Flax Co-op	DC	16	3	48	Dr. Paul Dribnenki - Agricore United (MB)
Soybeans	DC	8	4	32	BCGPA
Soybeans	FSJ	8	4	32	BCGPA
Annual Cereals as Forage	DC	12	3	36	BCGPA / Agricore United (Calgary)
Annual Cereals as Forage	FSJ	12	3	36	BCGPA / Agricore United (Calgary)
Forage Seed Association	BALD	50	4	200	Sandra Burton

Other studies in Agronomy and Privately Contracted work amounts to approximately an additional 850 plots.

Site: FSJ = Cameron Fines, Fort St. John
DC = Dennis Meier, Dawson Creek
BALD = Sandra Burton (Site Manager), Baldonnel

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 2003



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April	-	3.5
May	8.9	9.2
June	14.3	13.5
July	16.4	15.2
August	14.0	14.0
September	9.5	9.5

Frost Events: May 4 -5.7
 May 8 -4.1
May 19 -3.8
 Sept 18 -2.2
 Sept 19 -2.0
Sept 30 -4.1

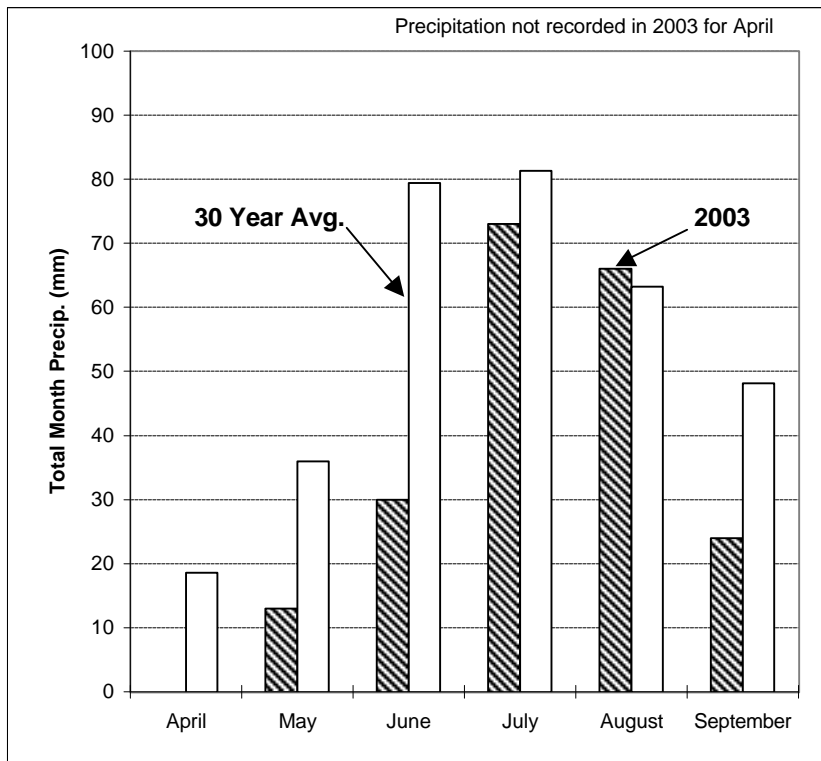
Killing Frost (-2.2 C) Free Period: 134 days
 (May 19 - September 30)

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

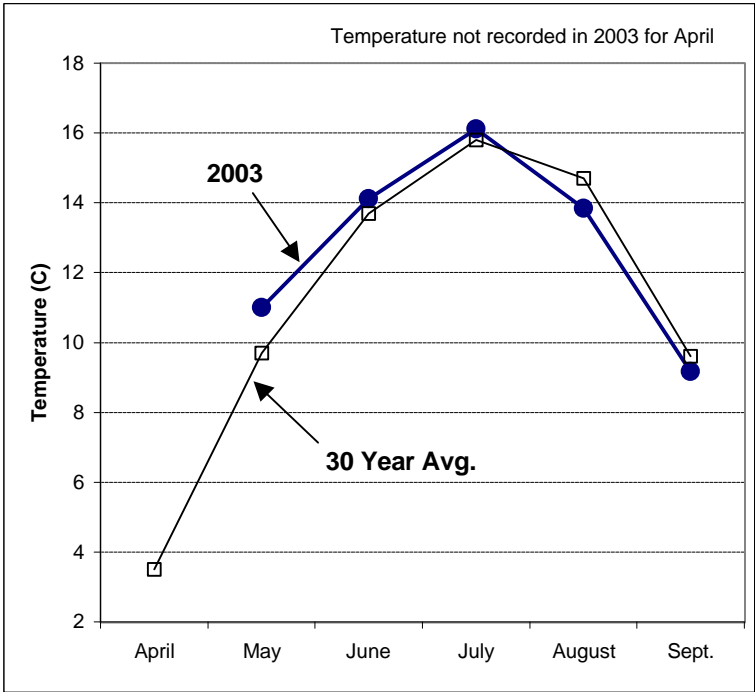
PRECIPITATION

Month	Monthly Precipitation (mm)	Precipitation* 30 year Avg. (mm)
April	-	19
May	13	36
June	30	79
July	73	81
August	66	63
September	24	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 2003



TEMPERATURE

Month	Monthly Avg. Temp. (C)	Temp.* 30 year Avg. (C)
April		3.5
May	11.0	9.7
June	14.1	13.7
July	16.1	15.8
August	13.8	14.7
Sept.	9.2	9.6

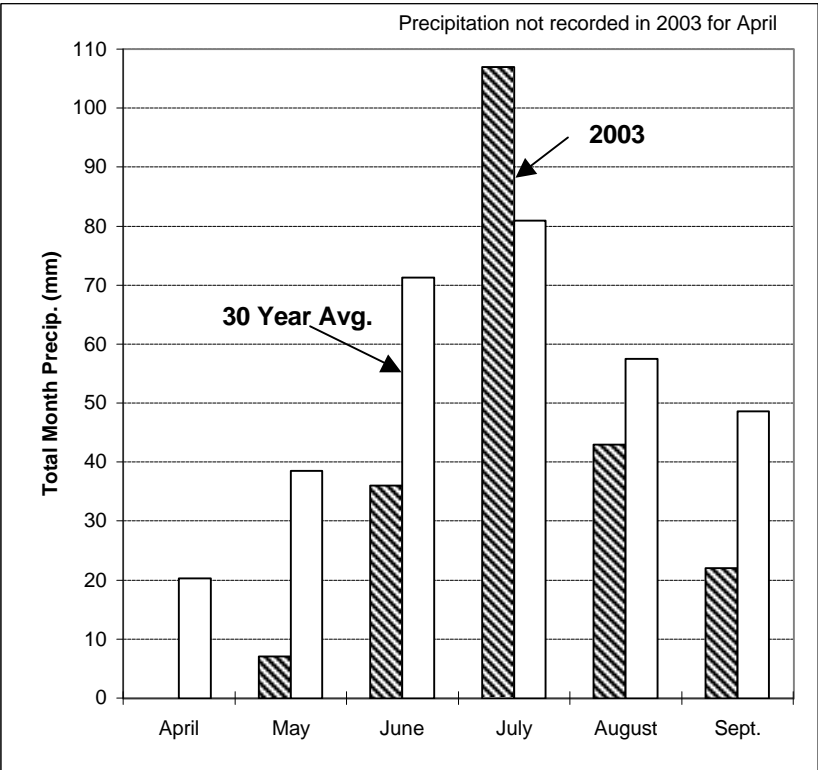
Frost Events: May 17 -2.6 Sept 17 -2.0
 May 19 -2.7 Sept 25 -2.1
 Sept 16 -1.4 **Sept 30 -5.2**

Killing Frost (-2.2 C) Free Period: 134 days
 (May 19 - September 30)

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

PRECIPITATION

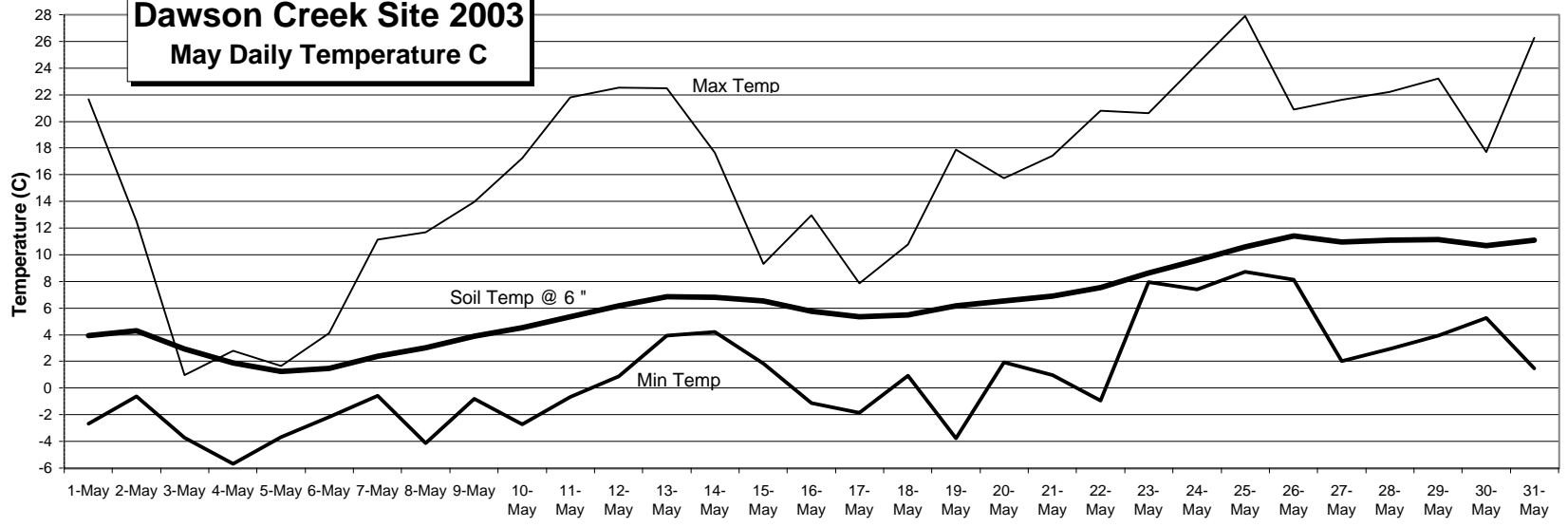
Month	Monthly Precipitation (mm)	Precipitation * 30 year Avg. (mm)
April		20
May	7	39
June	36	71
July	107	81
August	43	58
Sept.	22	49



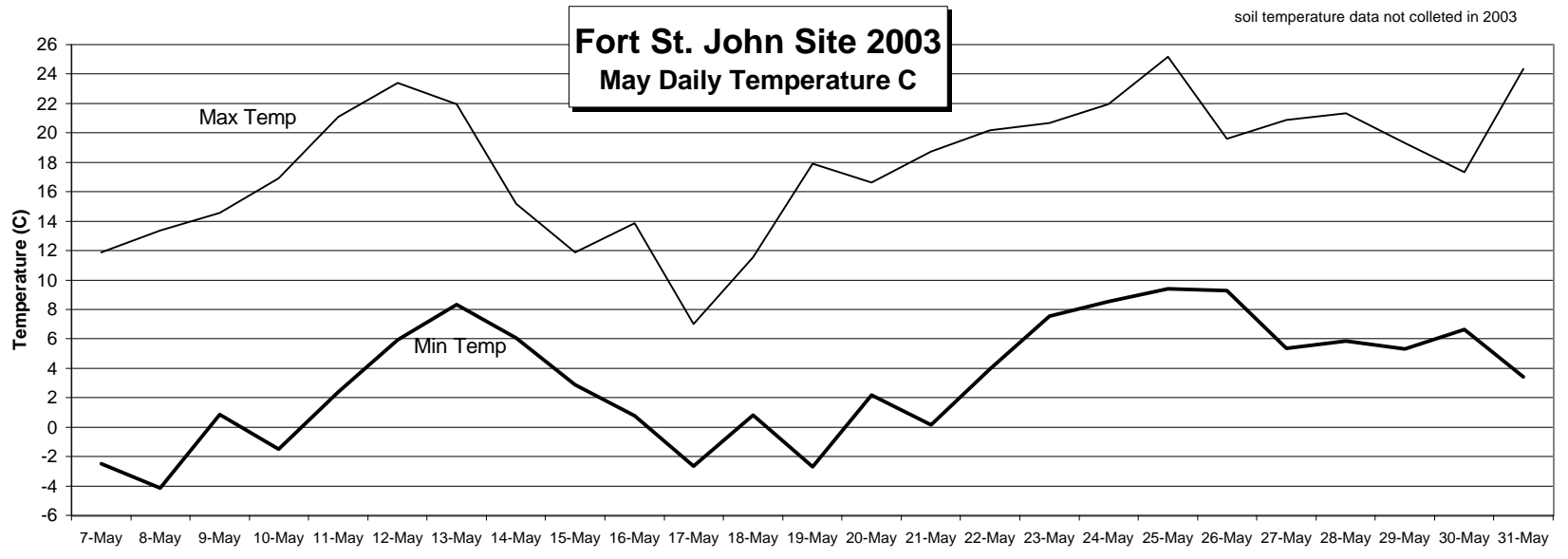
Data is provided by an on site weather station maintained by the Agriculture Risk Management Branch of the BC Ministry of Agriculture, Food and Fisheries.

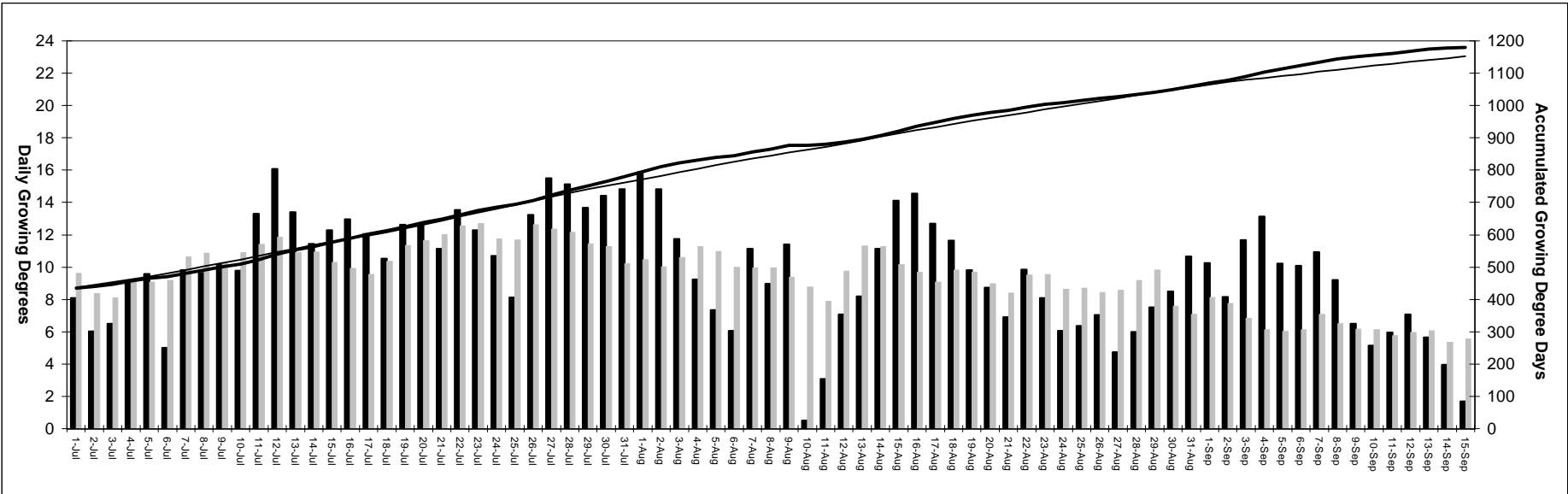
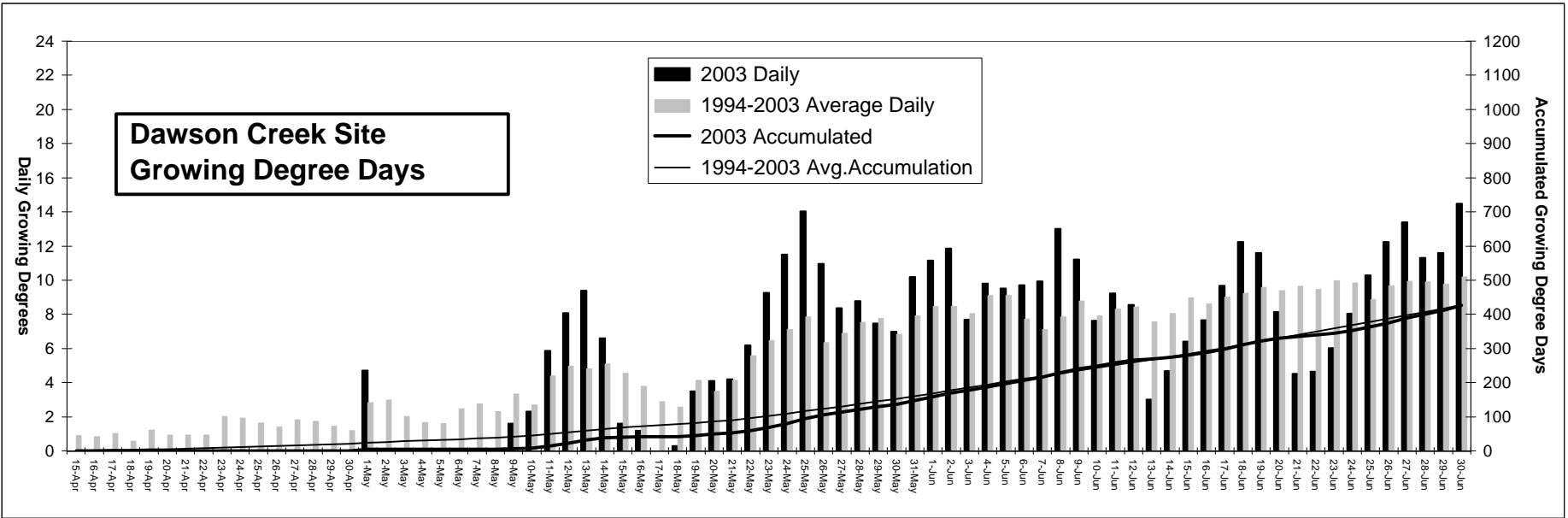


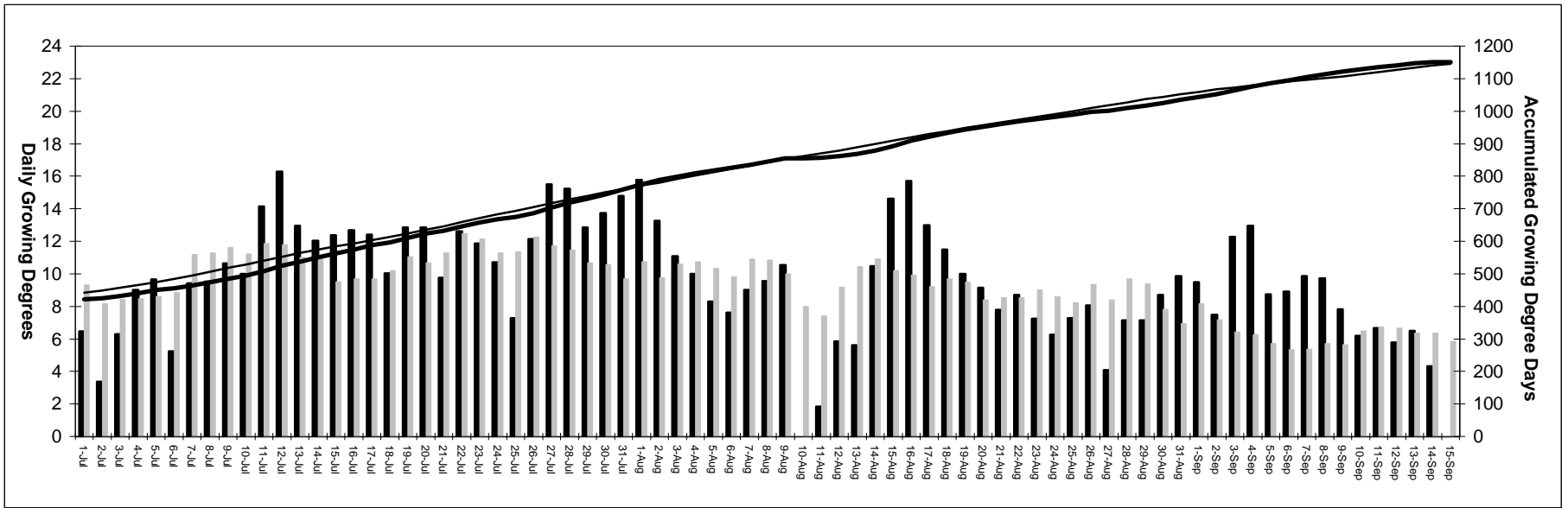
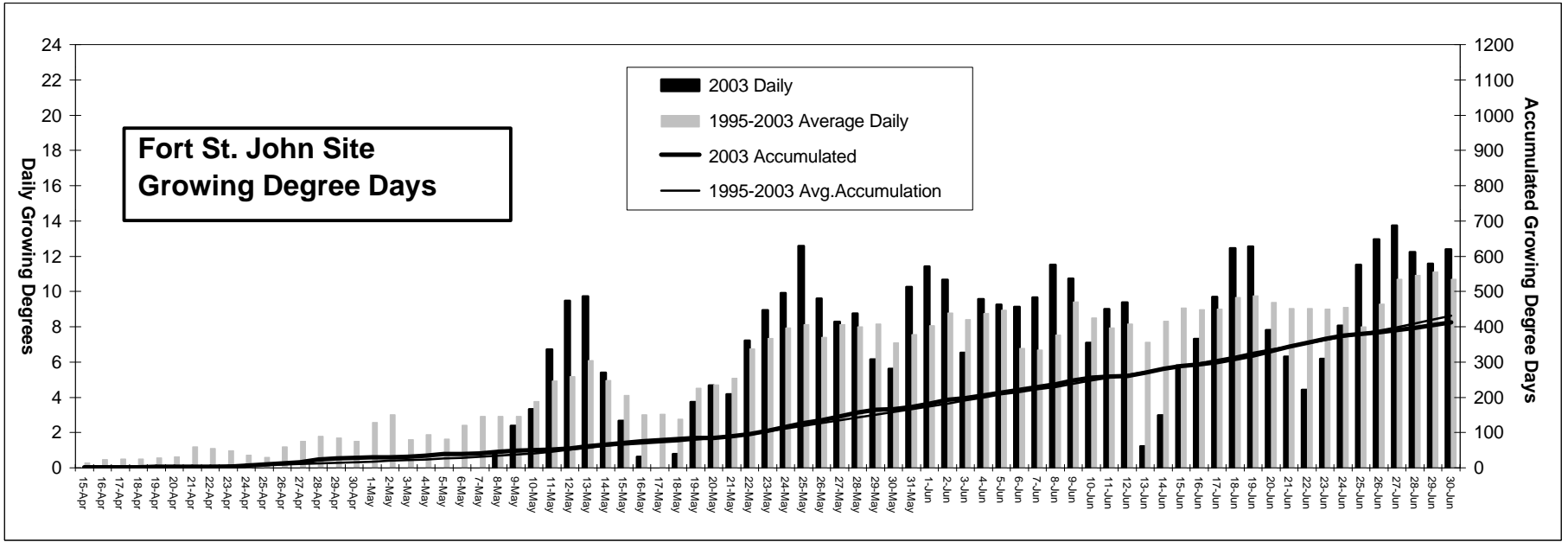
Dawson Creek Site 2003
May Daily Temperature C



Fort St. John Site 2003
May Daily Temperature C







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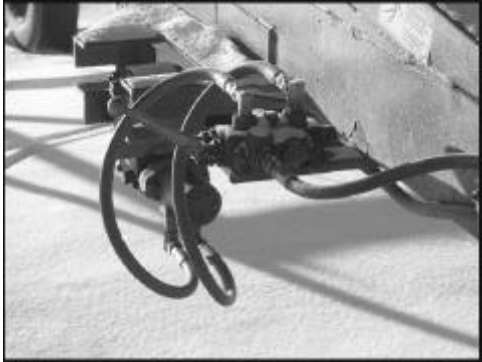
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