

*BC Peace Region*

**2017 Field Crop  
Variety Performance**



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**PEACE RIVER AGRICULTURE  
DEVELOPMENT FUND**



*Opinions expressed in this document are those of the BC Grain Producers Association and not necessarily those of our funding partners.*

# TABLE OF CONTENTS

Introduction & Acknowledgements .....	1
Reference & Terminology .....	2
Growing Conditions .....	4
Interpreting Data .....	4
2017 Field Treatments .....	5
Weather Information .....	6
Summary of Trials .....	8
Barley .....	9
Canola (Argentine) .....	13
Oat .....	17
Pea .....	20
Triticale .....	24
Wheat	
CPS/CWSP/CWSWS .....	25
CWRS .....	27
Durum .....	31
Winter .....	33



## Introduction and Acknowledgements

You may notice that this version of the book has no site specific data (planting and harvest dates, fertilizer and pesticide applications, etc.) for the South Peace research farm. The 2017 spring weather proved to be an unsurmountable struggle during planting. The wet conditions gave the research team no choice but to abandon seeding plans at the South Peace farm. This decision was not one that was taken lightly, but it was felt to be in the best interest of the program as a whole, allowing the team to focus on and plant the North Peace location. The field trials that were slated to be planted in the South Peace farm were moved to the North Peace, permitting all the trials to have a home, even if this year only has one station year of data.

Local agri-businesses and seed producers of the BC Peace Region should be recognized for their contributions by providing access to kernel protein analysis and providing certified seed to the program. We thank all of these individuals/organizations, along with various seed development and distribution companies for their direct financial support through “fee-for-service” contracted research, and “in-kind” support towards making field-testing and production of this book possible. Various other private organizations make financial contributions for field days, etc. throughout the year which further enhance the efforts of the research department.

Thanks are extended as well to the site cooperators who continue to generously give their support to the program via lease agreements to their land for research, the **Blanchette Family** and **Heath Tanner** for the North Peace site and **School District #59** for the South Peace site. A further word of thanks goes out to **Dennis Meier** of Dawson Creek who continuously and generously offers us space on his own farm for storage of much of our field equipment.

## Cautionary Notes

This document reports all tested materials grown during the 2017 growing season from head-to-head performance trials placed at the North Peace research farm. Multiple-year testing for any one variety is our goal, but often new materials can only be tested for the current year. This comparison may result in an unfair representation of new single-year materials against statistically stronger multiple-year materials. To try to resolve this issue, we now display the results in two graphs for each crop type, one with only the current year’s results and one with multiple-year results. In the multiple-year graphs, new one-year data is left out to be objective. Where **one-year results are shown**, whether in current one-year graphs or in charts, **readers must still interpret and use such one-year data with considerable caution**. As additional results are obtained for a particular variety, the simple effect of compiling data from variable weather patterns over time may change its position regarding either or both yield and maturity. The more station years (*defined as one test site at one location in one year*) that can be used to produce an average, the more stable and reliable a result will be - hence the association’s steadfast efforts to procure multi-year data. By providing readers with a separate “current year graph,” many of the risks with looking at one-year data is still there but the chances of misrepresenting new entries against older stronger data is greatly reduced.

This book is produced without bias and is reported to the best of our ability from our own site data collected locally (except where noted). Results contained herein should only be used as a guide and where labels or agreements are signed or supplied with your product, always follow label directions and agreements.

## For More Information Contact

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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 bracket [ ]. A station year is one test site at one location in one year. For example, a canola trial conducted at two locations over three years would have six station years, or [6]. We advise using caution if the data is based on *less than three station years*, or less than two years at both locations. This is a concern for canola with high variety turnover.

### Interpreting Yield Results

Crops in this book are managed using the same level of inputs as field-sized recommendations would suggest. Small-plot research plots offer better consistency and can be better controlled, whereas wet areas and variable soil fertility affect field-scale crop production. However, small plots are subject to *edge effect* which is caused by the spaces around the individual plots allowing extra sunlight to penetrate. This can boost yields on these exposed outer plants, as compared to the average plant in a field scale situation that would be shadowed by its neighbors. **The important concept here is that this edge effect can be assumed equal for all plots in a given trial therefore we can compare varieties in a trial and look at resulting yields as *relative to one another*.** Yields presented here are the result of *small plot production* only, using *fully randomized, fully replicated and good scientific methods*. The same "level" or amplitude of production is unlikely to be achieved on a large-scale (commercial) basis. Statistics, which are vital to good science, are best used on original yield data and not on averaged data. We elected to show *bushels per acre* for the current year data only. However, when more than one trial per site per year is used to develop the datasets as seen in this report, it is incorrect to display averaged statistical values. Treat *all* yield results as relative results. Current check varieties have been bolded.

### Plant Breeders Rights and the adoption of UPOV91

The Plant Breeders' Rights (PBR) gives plant breeders "copyright" protection of a variety for up to 18 years. Once a variety has been granted PBR, the breeder has control over the multiplication and sale of the seed. In addition, as of February 27, 2015, amendments have been made to the act to include newly adapted UPOV-91

changes. UPOV-91 contains some new elements that provide even stronger protection for plant breeders than any of the previous conventions with PBR. Either way, a breeder can take legal action for damages if someone infringes on their rights. Basically, amending the PBR Act encourages increased investment in plant breeding within Canada. This in turn gives Canadian farmers more access to new and innovative plant varieties that otherwise may never have been introduced if not protected. Farmers may still save some seed for seeding the next year on their own farm, but the sale or giving of the crop as seed for planting purposes to others is not allowed.

Simply put, any seed sold in Canada now that is protected under UPOV-91 must come with proof of proper and legally acquired genetic origin. Most new transgenic herbicide-tolerant varieties have additional restrictions through '*technical use agreements*', so be aware of these also, as it replaces PBR status and can have strong consequences if ignored. Varieties protected by PBR or UPOV-91 can be identified by their logos on a seed bag, seed tag or advertising material. This book tries to identify such lines within "*Variety Description*" tables with a flower (☼) or flower and superscript "91" (☼<sup>91</sup>) for the new UPOV-91 status. It is the responsibility of the grower to know which line is protected by breeder rights.

### Certified Seed

The cost of *certified seed* is a small additional expense in relation to total crop production input costs, especially when changing to a different variety. Certified seed assures genetic purity, high germination rates and low percentage of foreign seed when compared to common seed. Certified seed can be purchased in bulk through authorized seed dealer networks. Visit the Canadian Seed Growers' Association at [www.seedlocator.net](http://www.seedlocator.net) to find a certified seed grower close to you.

### Seed Treatment

Choosing disease-resistant varieties and using certified seed is good practice, but treated seed goes a long way in the fight against plant diseases as well. The cost of a fungicide or a combined fungicide/insecticide seed treatment can be a small price to pay for the amount of protection and peace of mind they provide. The right seed treatment choice is important as some perform better than others for certain crop types. Treated seed must not contaminate grain delivered to an elevator or be used for feed.

- Cereal seed should be treated to control *true loose smut* and early season *seedling* diseases.
- Seed of rye, winter wheat and flax should be treated to control *seedling blight*. Winter wheat and rye also require protection against *smut*.
- Canola seed should be treated to control seed borne *blackleg*, *damping off* and early *flea beetle* attack.

### Ergot

The fungal disease *Ergot* can attack all varieties of wheat, barley, rye, triticale and most common species of grass. Oat varieties are rarely attacked. Grain having 0.1% ergot is considered poisonous to livestock and should not be used as feed. The black rice-like "*seed mummies*" can be spotted prior to harvest in heads during a field inspection.

### Seed Inoculation

Peas can make much of their nitrogen (N) requirement from the air through a partnership with soil bacteria called *Rhizobium*. Cool, dry or excessively wet soils provide a harsh environment for proper inoculation. Under these conditions, a low level of nodulation formation will be the result. Survival of residual rhizobia organisms in our cool Peace Region soils is not consistently reliable; making use of inoculant with seed a good form of insurance. The pea seed must be inoculated immediately before or during seeding with a proper strain of bacteria specific to peas. *Rhizobia* are living organisms so check the expiry date on the package and follow inoculant label directions carefully. Generally, it is a good idea prior to its use and even during use if possible, to try and reduce the inoculant's exposure to sunlight, open-air and warmth. Note that high residual soil nitrogen levels (over 60 kg N/ha) will reduce nodulation in the field regardless of inoculation.

**Granular inoculant placed with the seed at planting was used on all pea-trials seen in this report.**

### Seeding Rates

While the following *range* of seeding rates has given consistent yields for each crop listed, local producer experience has shown that the top end of the range provides more consistent results. **Risk of impaired emergence under stressful conditions can be reduced by increasing the seeding rate.** In addition, higher seeding rates can reduce the amount of secondary tillering, **produce earlier more uniform maturity** and reduce the amount of green kernels at harvest.

Testing conducted by the Beaverlodge Research Station in the past throughout the Peace Region showed that by increasing the seeding rate of wheat from 80 to 120

lbs/ac (90 to 134 kg/ha), reduced the time to maturity by two days. Our own BCGPA trials involving seeding rates in barley initially showed that when increasing seeding rates from 2.25 to 2.5 bushels per acre, it decreased maturity from 2 to even 4 days at physiological maturity, which is significant by harvest. However, over the full five years of the project, our own results became less significant.

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
Oat	70 - 90 lb/ac	85 - 100 kg/ha
Flax	26 - 40 lb/ac	30 - 35 kg/ha
Rye	65 - 85 lb/ac	73 - 95 kg/ha
Peas	150 - 300 lb/ac	165 - 330 kg/ha
Argentine Canola	5 - 8 lb/ac	6 - 9 kg/ha
Polish Canola	5.5 lb/ac	6 kg/ha

Due to large differences in seed sizes, seeding rates can vary considerably. Therefore, one should base the seeding rate on a *target number of viable seeds per square foot*. Using the 1000 kernel weight (TKW), adjusting for percent germination and allowing for seed mortality to be say 5%, calculate the number of pounds of seed required per acre. It is best to acquire the *actual* TKW.

**Example (using wheat):** Target **24** wheat plants per square foot, the variety has a 1000 K wt. of **35** grams. Then estimate a seedling survival rate, which is the germination percentage minus a small amount for seedling mortality. Field mortality is usually 5-20%, depending on harshness of spring seedbed conditions. A seed lot with 95% germination and an expected field mortality of 5% would have an expected emergence or survival rate of 90%. Using a *constant value* of **9.6...**

$$\underline{24 \text{ plants/sq.ft} \times 35 \text{ (g/1000 K)} \times 9.6 = 90 \text{ lb/acre}} \\ \underline{90 (\%)}$$

*Answer: You would plant 90 lbs. of wheat seed/acre.*

Crop	Type	Seeds / sq.ft	Avr. 1000 K wt
Wheat	CWRS	24 - 25	35 - 44 g
	CPS / CWES	24 - 25	44 - 52 g
Barley	6 Row	24 - 25	35 - 43 g
	2 Row	24 - 25	44 - 53 g
Oat	Hulled	24 - 25	38 - 47 g
Rye		24	30 - 35 g
Peas		8	200 - 345 g

## BC Grain Producers Association 2017 Growing Conditions

inspection and decided the North Peace farm was more viable and moved all the plots there. The downside of this action was that we are only able to record data for only one station year for 2017.

The past growing season presented challenges we have not had to face in over 20 years of crop research conducted by the BC Grain Producers Association. The research farm in the South Peace was so saturated when it came time to plant, we could not get our equipment into the field. In the North Peace, we had large water runs from snow melt and spring rains; these were so deep that the team was forced to disc the field. We did a quick

While the weather seemed to stay wet in the South Peace, with a late spring and continued rain, the weather in the North Peace seemed to be remarkably different. The weather station at the North Peace farm recorded a precipitation amount of 200ml during the growing season, 80ml short of the average for that location.

### Interpreting Data

The yield for each variety is reported on a regional basis for the North and South Peace areas and as an average for the entire BC Peace, with the number of years each variety has been tested is listed for both of the areas. In the following example, the number of years is indicated in [ ], right after the yield. Station years are the total of times a variety has been tested in BCGPA trials.

Two Row Barley			Yield as % of AC Metcalfe								
Variety	Type	feed	South Peace			North Peace			B.C. Peace		
			2017	2012-2017		2017	2012-2017		2017	2012-2017	
			Yield	Avg.	Stn.Yrs.	Yield	Avg.	Stn.Yrs.	Yield	Avg.	Stn.Yrs.
XENA	2-row	feed	115	109	[6]	83	100	[6]	106	104	[12]

note: the above example is a dramatization

Number of **years** the variety was tested at **each station**

Number of **times** in total the variety was tested in the **B.C. Peace**.

### Statistical Values

Entries into the regional trials are replicated a minimum of three times, with the preference being four at each location. This replication is used to reach an overall average per entry per trial, and allow for statistical analysis.

### Coefficient of Variance (CV value)

The CV is given as a percentage and shows how statistically reliable a given data set is. Generally, any value less than or equal to 15% is considered to be acceptable. This tells us that if you were to repeat a trial under the same or similar conditions, you should get similar results. While you do not want to see yield data from a single trial with a high CV, when assessing insect or disease data, a higher CV can be acceptable, due to the higher variability traits of those types of trials.

### Final Note

In order to obtain a full picture of the variety, the BCGPA research team recommends that readers of this book recognize that longer term averages should be used whenever possible, with preference given to those with data from at least six station years over the BC Peace. The BC Grain Producers research team would like to note that data for varieties with less than three station years should be compared with caution.



## 2017 Field Treatments

North Peace: SW19 Tp84 R18 W6

### Planting & Harvest

Crop	Seeding rate viable seeds used		Planted Date	Soil Temp (C°) @ plant	Seeding Depth	Harvest Date	Harvesting Method
	m <sup>2</sup>	ft <sup>2</sup>					
Barley	260	24.15	30-May-17	15.4	1 - 1.5 inch	8-Sep-17	direct
Canola (Regional)	200	18.58	26-May-17	14	0.5 - 1 inch	5-Oct-17	control lodged/direct
Canola Performance Trial	200	18.58	27-May-17	14.3	0.5 - 1 inch	3-Oct-17	control lodged/direct
CPS/GP&SWS Wheat	280	26.01	30-May-17	15.4	1 - 1.5 inch	27-Sep-17	direct
CWRS Wheat	280	26.01	30-May-17	15.4	1 - 1.5 inch	26-Sep-17	direct
Durum Wheat	300	22.30	31-May-17	15.4	1 - 1.5 inch	28-Sep-17	direct
Oat	250	23.23	30-May-17	15.4	1 - 1.5 inch	10-Sep-17	direct
Pea	88	8.18	27-May-17	15	0.75 - 1.5 inch	16-Sep-17	desiccate/direct
Triticale	310	28.80	30-May-17	15.4	1 - 1.5 inch	28-Sep-17	direct
Winter Wheat	250	23.22	27-Sep-16		0.75 - 1.5 inch	23-Aug-17	direct

### Fertilizer Rates

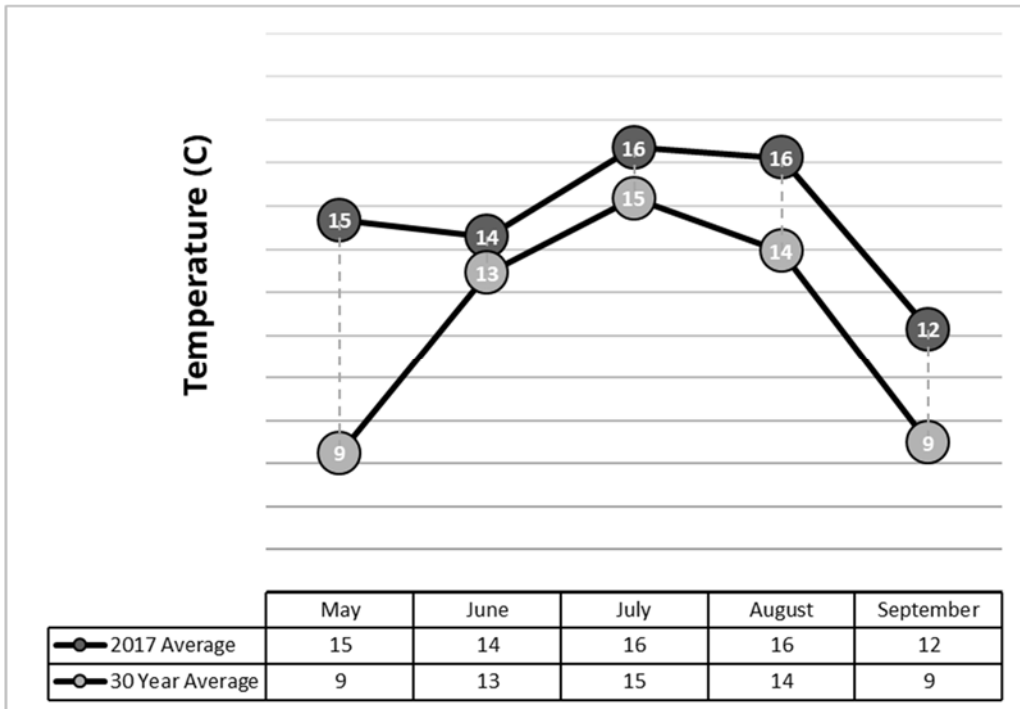
Crop	Fertilizer Applied	Pro. kg/ha	Placement	lbs actual/ac Recom. vs. Applied	Soil-Test Results			
					N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	S
Canola	34-0-0-11	245	banded	*Recommended =	80	25	15	27
	5-26-30	55.7	banded	Actually applied =	79.3	24.5	14.9	24
	11-52-0	25	in-furrow					
Flax	34-0-0-11	167.5	banded	*Recommended =	35	27	15	12
	5-26-30	73	banded	Actually applied =	40.4	24.5	14.9	11.5
	11-52-0	25	in-furrow					
Cereals	34-0-0-11	78.4	banded	*Recommended =	15	30	15	10
	5-26-30	55.7	banded	Actually applied =	28.7	24.5	14.9	7.69
	11-52-0	25	in-furrow					
Pea	34-0-0-11	44.4	banded	*Recommended =	0	32	15	12
	5-26-30	53	banded	Actually applied =	19	23.9	14.2	4.36
	11-52-0	25	in-furrow					

### Pesticide

Crop	Date Applied	Product Used	Product Rate
Barley	26-Jun-17	Infinity	355 ml/ac
		FX	160 ml/ac
Canola (Regional)	22-Jun-17	Muster (ethametsulfuron methyl)	12 g/ac
		Lontrel 360 (clopyralid)	227 ml/ac
		Poast Ultra (sethoxydim)	200 ml/ac
		Merge	400 ml/ac
Canola Performance Trials Liberty Plots Clearfield Plots Round Up Ready Plots	23-Jun-17	Liberty 150 SN	1.35 L/ac
		Solo ADV	323 ml/ac
		WeatherMax	400 ml/ac
Oats	25-Jun-17	Buctril-M (bromonil + MCPA)	400 ml/ac
Pea	23-Jun-17	Assure II	200 ml/ac
		Sure-Mix	0.5% v/v
		MCPA Amine 600	170 ml/ac
3m Wheat	26-Jun-17	Buctril-M (bromonil + MCPA)	400 ml/ac
Wheat	26-Jun-17	Infinity	355 ml/ac
		FX	160 ml/ac

## North Peace Weather Information

### Temperature

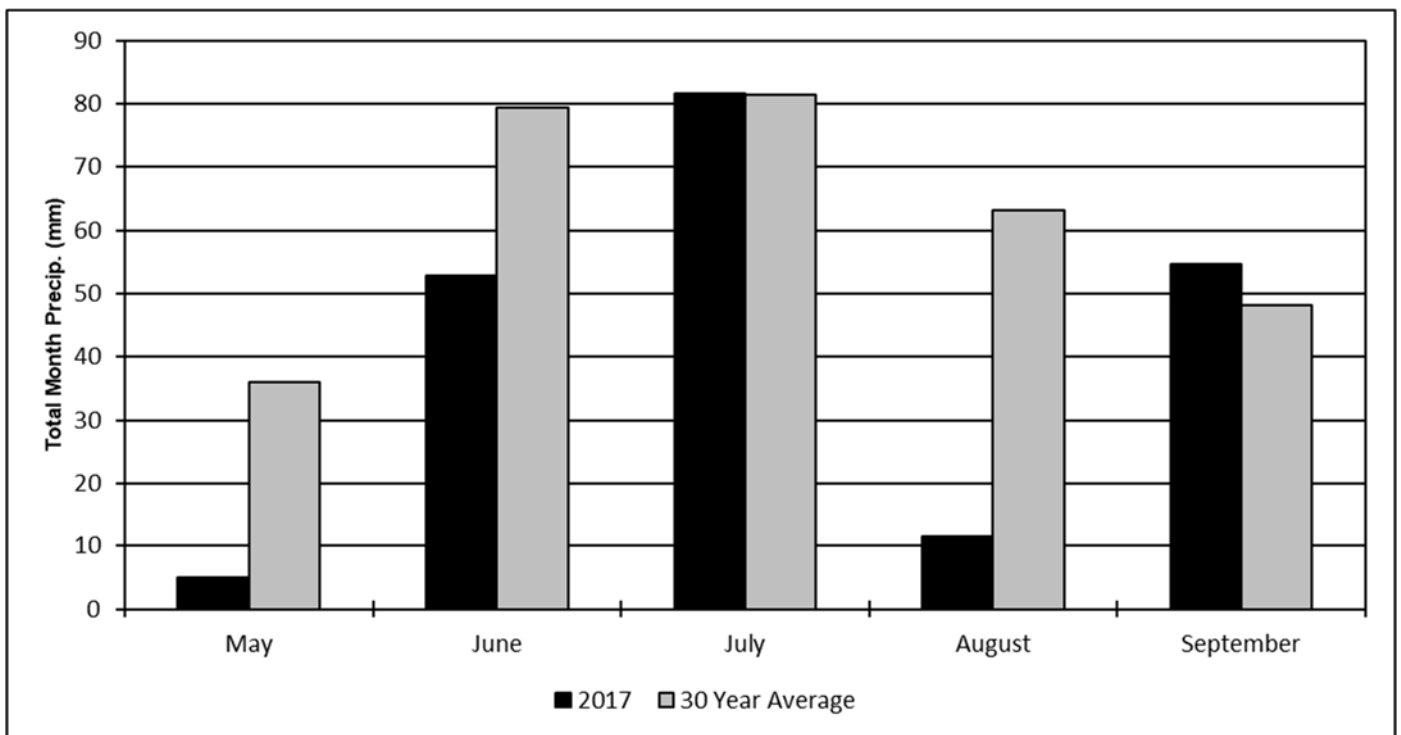


**Notes on 2017 Weather Information Collection**

2017 Weather Data on this page is calculated from May 17, 2017 - September 30, 2017. It is collected via an on farm weather station.

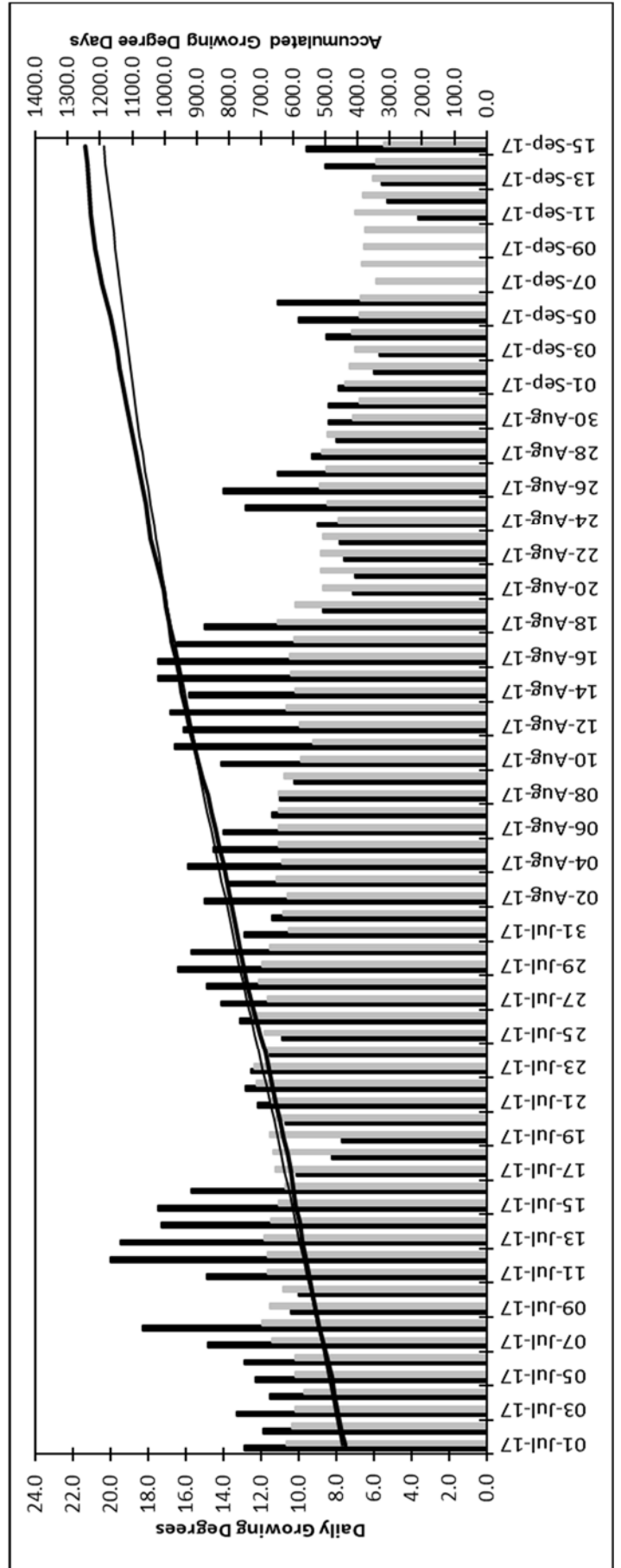
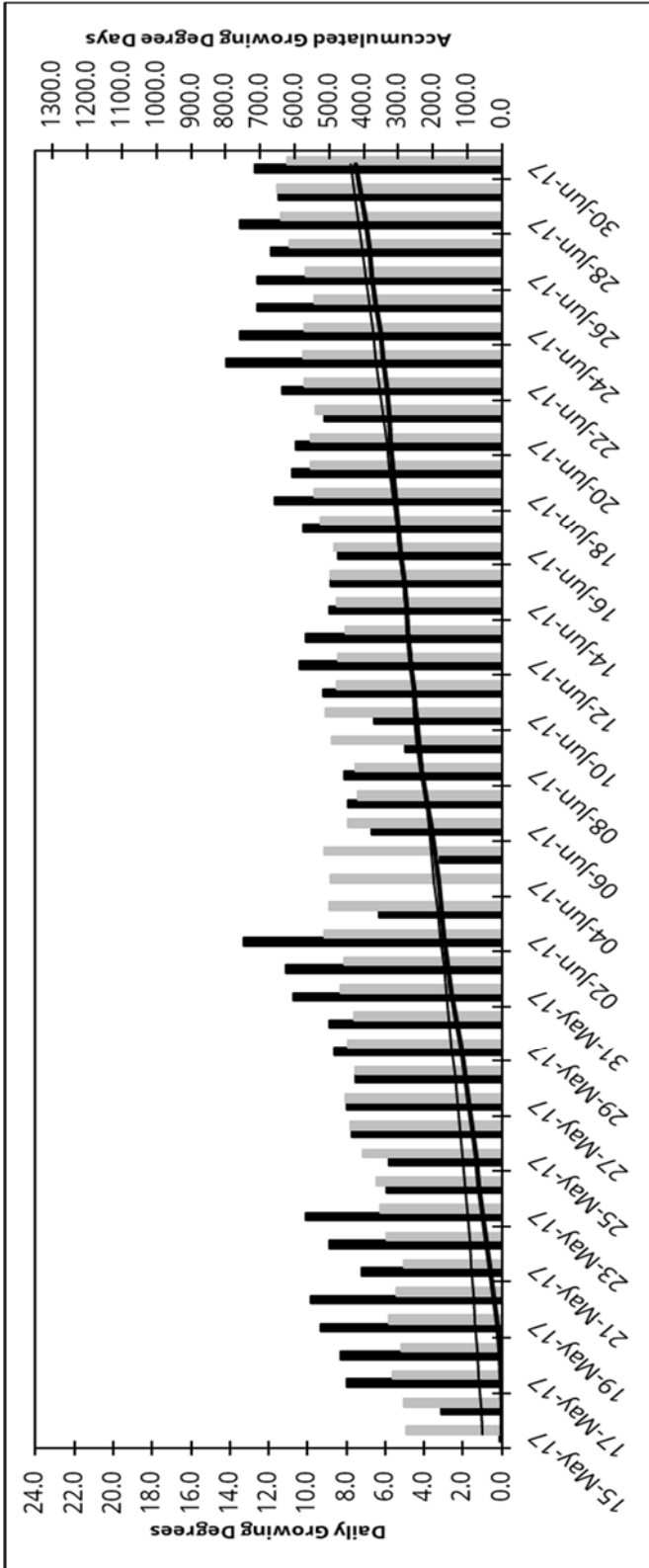
30-year averages shown are collected from Environment Canada information from 1968-1997.

### Precipitation



# North Peace Growing Degree Days

- 2017 Daily
- 1994-2015 Average Daily
- 2017 Accumulated
- 1994-2015 Average



## Summary of Trials

### Producer Funded 'Regional' Trials Planted

Trial Name	# of Varieties	Replicates	Total Plots
2-row BC Regional Barley	7	4	28
6-row BC Regional Barley	6	4	24
2-row Regional Barley *	14	3	42
BC Regional Canola	25	4	100
Canola Performance Trial	26	4	104
Regional Flax *	8	4	32
Regional Oats *	10	3	30
BC Regional Oats	9	4	36
Green Pea Regional *	6	4	24
BC Green Pea Regional	5	4	20
Yellow Pea Regional *	10	4	40
BC Yellow Pea Regional	6	4	24
Regional Triticale *	2	3	6
CWRS Regional Wheat *	20	3	60
BC Regional CWRS Wheat	19	4	76
Regional SP/SWS Wheat *	11	3	33
BC Regional SP/SWS Wheat	6	4	24
Regional CPS Wheat	12	3	36
BC Regional CPS Wheat	9	3	27
Regional Durum Wheat	8	3	24
BC Regional Winter Wheat	10	4	40
<b>Total Plots</b>			<b>830</b>

\*Denotes trials in partnership with Alberta Ministry of Agriculture and Forestry

### Additional Trials Planted

The data from the two tables following is used for plant breeding and early registration support.

#### Co-operative Trials

Trial Name	# of Varieties	Replicates	Total Plots
B-2Y41 Barley Co-op	40	3	120
Western 2-Row Western Barley Co-op	41	3	123
Western 6-Row Western Barley Co-op	18	3	54
Western Oat Co-op	36	3	108
Short-Season Field Pea Co-op	18	3	54
PYT09 & 10 - Field Pea	72	2	144
Parkland 'C' Wheat Co-op	30	3	90
<b>Total Plots</b>			<b>693</b>

#### Fee Trials

Crop	Total Plots
Camelina	48
Canola	540
Quinoa	16
Oats	390
Wheat	860
<b>Total Plots</b>	<b>1854</b>

# BARLEY

Six Row Barley		Yield as % of AC Metcalfe										
Variety	Type	South Peace				North Peace				BC Peace		
		2017 Yield		2012-2017		2017 Yield		2012-2017		2017	2012-2017	
		bu / acre	% of check	Avg. (%)	Stn. Yrs.	bu / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
<b>AC Metcalfe</b>	2 row			100	[6]	150	100	100	[7]	100	100	[13]
Breton	6 row			103	[5]	165	106	109	[6]	106	106	[11]
CDC Anderson ☼	6 row			95	[5]	141	90	102	[6]	90	99	[11]
Celebration ☼	6 row			98	[5]	140	91	106	[6]	91	102	[11]
Chigwell ☼	6 row			98	[3]	152	100	113	[4]	100	107	[7]
Muskwa ☼	6 row			106	[5]	162	107	111	[6]	107	109	[11]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 3.72%

Two Row Barley		Yield as % of AC Metcalfe										
Variety	Type	South Peace				North Peace				BC Peace		
		2017 Yield		2012-2017		2017 Yield		2012-2017		2017	2012-2017	
		bus / acre	% of check	Avg. (%)	Stn. Yrs.	bus / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AAC Connect ☼ <sup>91</sup>	2 row			103	[1]	98	99	98	[2]	99	100	[3]
AAC Synergy ☼	2 row			103	[3]	126	84	97	[4]	84	100	[7]
<b>AC Metcalfe</b>	2 row			100	[7]	108	100	100	[9]	100	100	[16]
Altorado ☼ <sup>91</sup>	2 row			110	[2]	123	90	99	[3]	90	103	[5]
CDC Ascent ¶*Δ	2 row					73	92	92	[1]	92	92	[1]
CDC Austenson ☼	2 row			106	[2]	114	97	106	[4]	97	106	[6]
CDC Fraser Δ	2 row			105	[2]	110	103	102	[3]	103	103	[5]
CDC Goldstar *Δ	2 row					116	95	95	[1]	95	95	[1]
CDC Kindersley ☼	2 row			99	[5]	107	98	99	[6]	98	99	[11]
Cerveza ☼	2 row			104	[5]	111	100	103	[6]	100	103	[11]
Champion ☼	2 row			110	[5]	129	98	103	[6]	98	106	[11]
Claymore ☼ <sup>91</sup>	2 row			112	[3]	123	87	99	[4]	87	104	[7]
Lowe Δ*	2 row					124	98	98	[1]	98	98	[1]
Major ☼	2 row			101	[5]	117	100	103	[6]	100	102	[11]
Merit 57 ☼	2 row			111	[5]	113	106	107	[6]	106	109	[11]
Oreana ☼ <sup>91</sup>	2 row			121	[3]	134	96	107	[4]	96	113	[7]
TR10214	2 row			105	[4]	105	93	100	[5]	93	102	[9]
TR13606 Δ*	2 row					108	96	96	[1]	96	96	[1]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 5.61%, 14.78%

Δ PBR pending

☼ protected by Plant Breeders Rights

☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

\* first year tested, very limited data

¶ hulless seed types

¥ semi-dwarf variety

‡ smooth-awned type

§ Awnless

Feed Barley							Variety Descriptions						
BC Peace Averages							Alberta Agdex 100/32 info						
2012-2017							Resistance to						
Variety	Type	Days to Maturity		Bushel	Kernel		Lodging	Loose Smut	False Smut	Root Rot	Scald	FHB	
		+/- check	cm	Weight lbs/bu	Protein % +/- check								
Eligible for General Purpose Grades Only													
<b>AC Metcalfe</b>	2 row	0.0	81	55	0	[18]	G	R	I	I	S	I	
Altorado <sup>91</sup>	2 row	1.9	77	55	1	[2]	G	MR	MR	MR	S	I	
Breton	6 row	-0.9	86	50	-1	[8]	F	MS	MR	I	I	S	
CDC Austenson <sup>91</sup>	2 row	1.2	81	57	-1	[2]	G	S	R	I	S	I	
Champion <sup>91</sup>	2 row	0.9	80	56	0	[8]	G	S	R	MR	S	I	
Chigwell <sup>91</sup>	6 row	0.4	80	53	-1	[4]	G	MS	MR	MS	MR	S	
Claymore <sup>91</sup>	2 row	2.6	79	54	0	[4]	G	S	R	I	S	I	
Muskwa <sup>91</sup>	6 row	-0.1	73	52	-1	[8]	G	MS	R	MS	MR	S	
Oreana <sup>91</sup>	2 row	2.7	69	56	-1	[4]	VG	S	R	I	S	S	
Hulless varieties													
CDC Ascent ¶*Δ	2 row	1.4	75	66			VG	I	R	MR	I	S	

Malt Barley							Variety Descriptions						
BC Peace Averages							Alberta Agdex 100/32 info						
2012-2017							Resistance to						
Variety	Type	Days to Maturity		Bushel	Kernel		Lodging	Loose Smut	False Smut	Root Rot	Scald	FHB	
		+/- check	cm	Weight lbs/bu	Protein % +/- check								
AAC Connect <sup>91</sup>	2 row	0.0	82	53	XX	XX	G	S	R	R	S	MR	
AAC Synergy <sup>91</sup>	2 row	0.7	78	55	-1	[6]	F	S	I	I	S	MS	
<b>AC Metcalfe</b>	2 row	0.0	81	55	0	[18]	G	R	I	I	S	I	
CDC Anderson <sup>91</sup>	6 row	-1.2	81	51	-1	[8]	G	MR	R	I	MS	I	
CDC Fraser Δ	2 row	1.2	82	52	0	[2]	G	R	MR	MS	MS	MR	
CDC Kindersley <sup>91</sup>	2 row	-2.7	79	56	0	[8]	G	S	R	I	S	I	
Celebration <sup>91</sup>	6 row	-3.2	83	53	1	[8]	G	R	R	MS	S	MS	
Cerveza <sup>91</sup>	2 row	-0.1	78	54	-1	[8]	F	R	R	I	S	I	
Lowe Δ*	2 row	4.7	87	56	XX	XX	F	R	R	XX	MR	MR	
Major <sup>91</sup>	2 row	-2.0	79	55	0	[8]	G	R	MR	I	MS	I	
Merit 57 <sup>91</sup>	2 row	2.7	82	55	-1	[8]	F	MS	S	I	MS	MS	
TR13606 Δ*	2 row	0.7	78	57	XX	XX	G	R	R	XX	MS	I	

Overall average protein for AC Metcalfe is 13.2%

Overall average maturity for AC Metcalfe is 89 days

Δ PBR pending

<sup>91</sup> protected by Plant Breeders Rights

<sup>91</sup> protected by Plant Breeders Rights, UPOV91

\* first year tested, very limited data

XX = Insufficient Data

VG= very good, G = good, F = Fair, P = Poor, VP = Very Poor

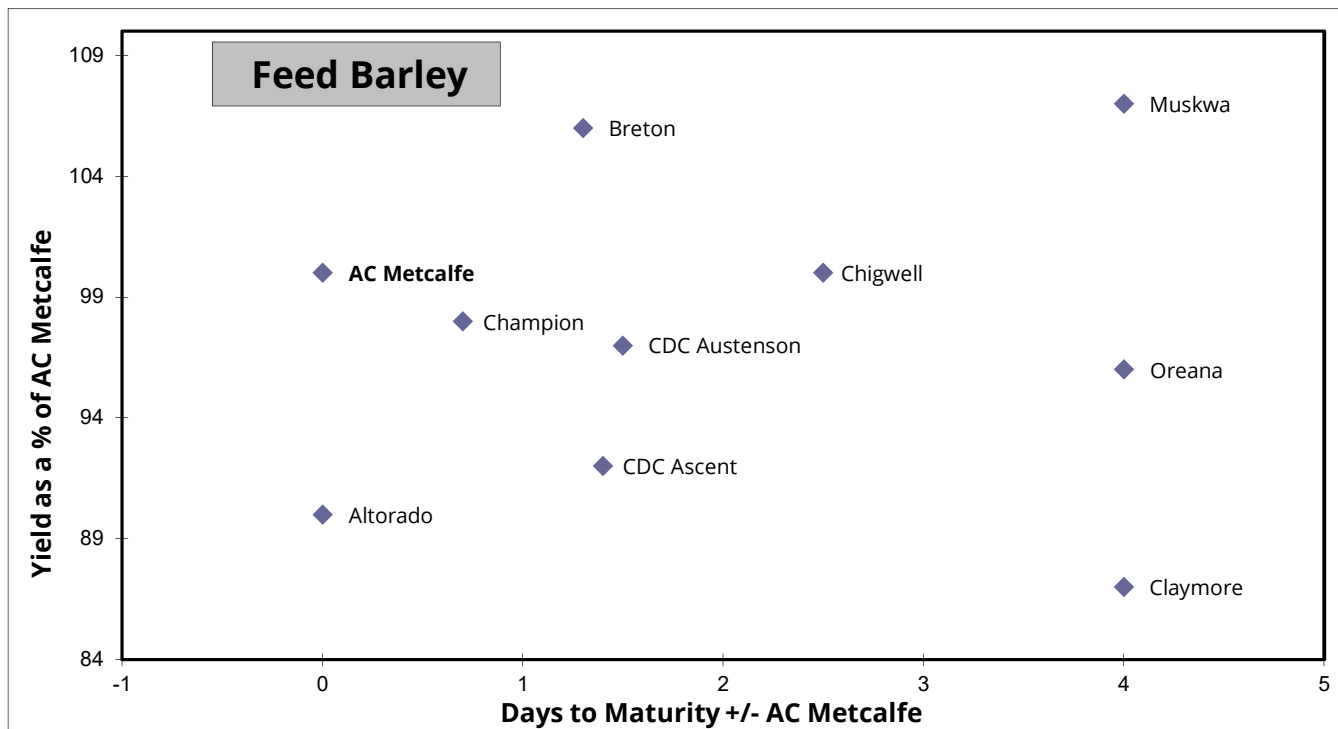
R = Resistant, MR = moderately resistant, I = Intermediate resistance, MS = Moderately Susceptible, S = Susceptible

¶ hulless seed types

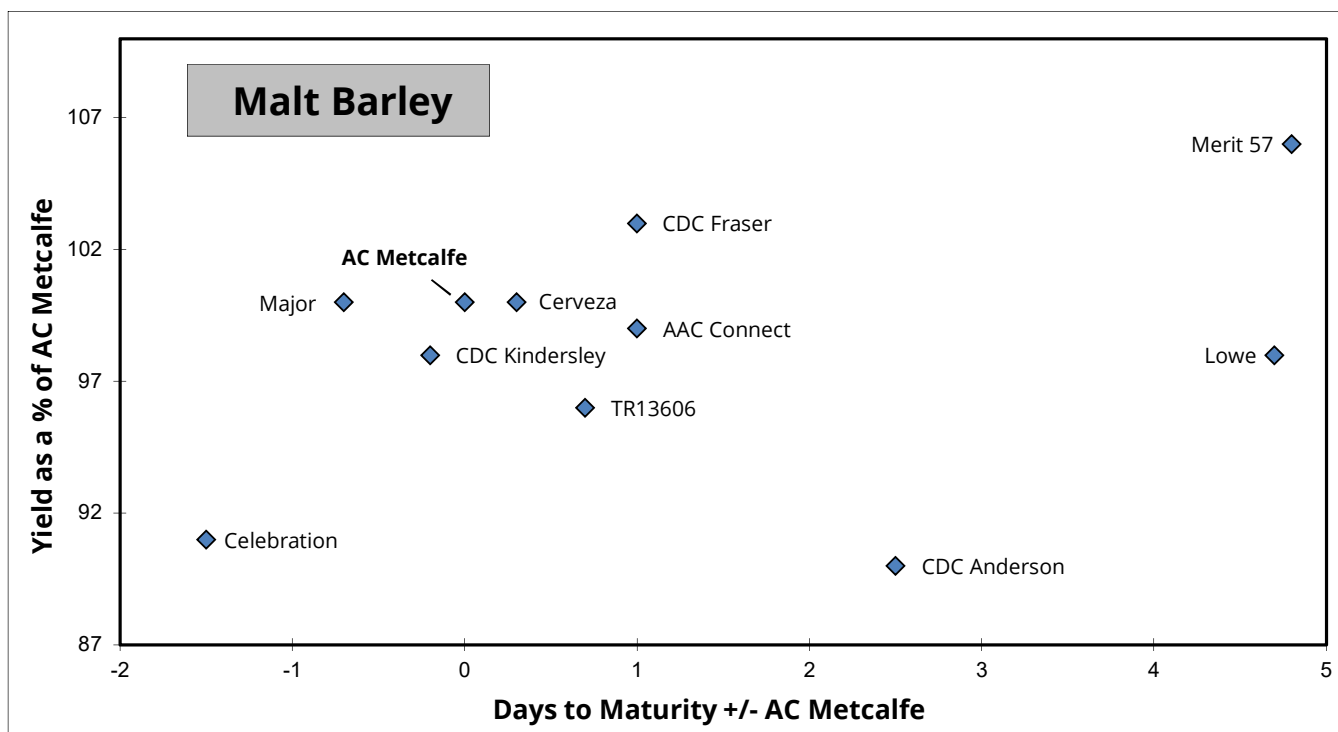
¥ semi-dwarf variety

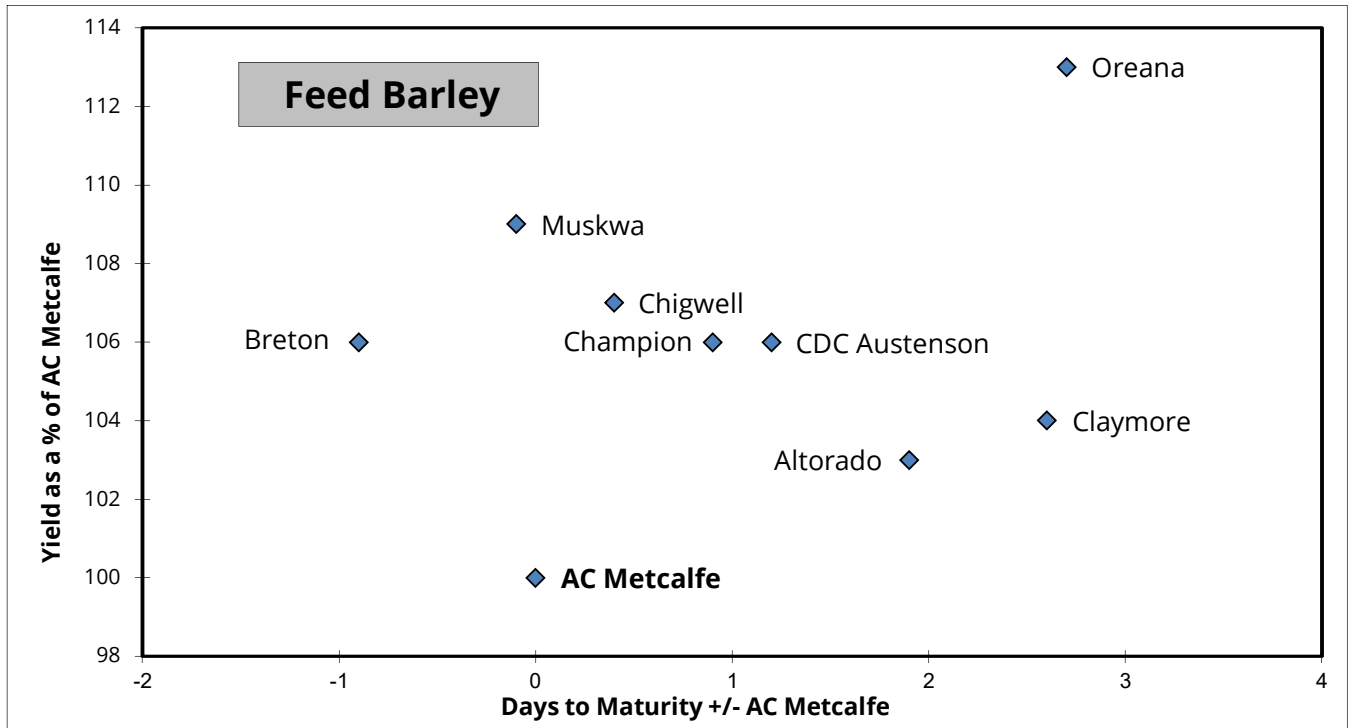
‡ smooth-awned type

§ Awnless

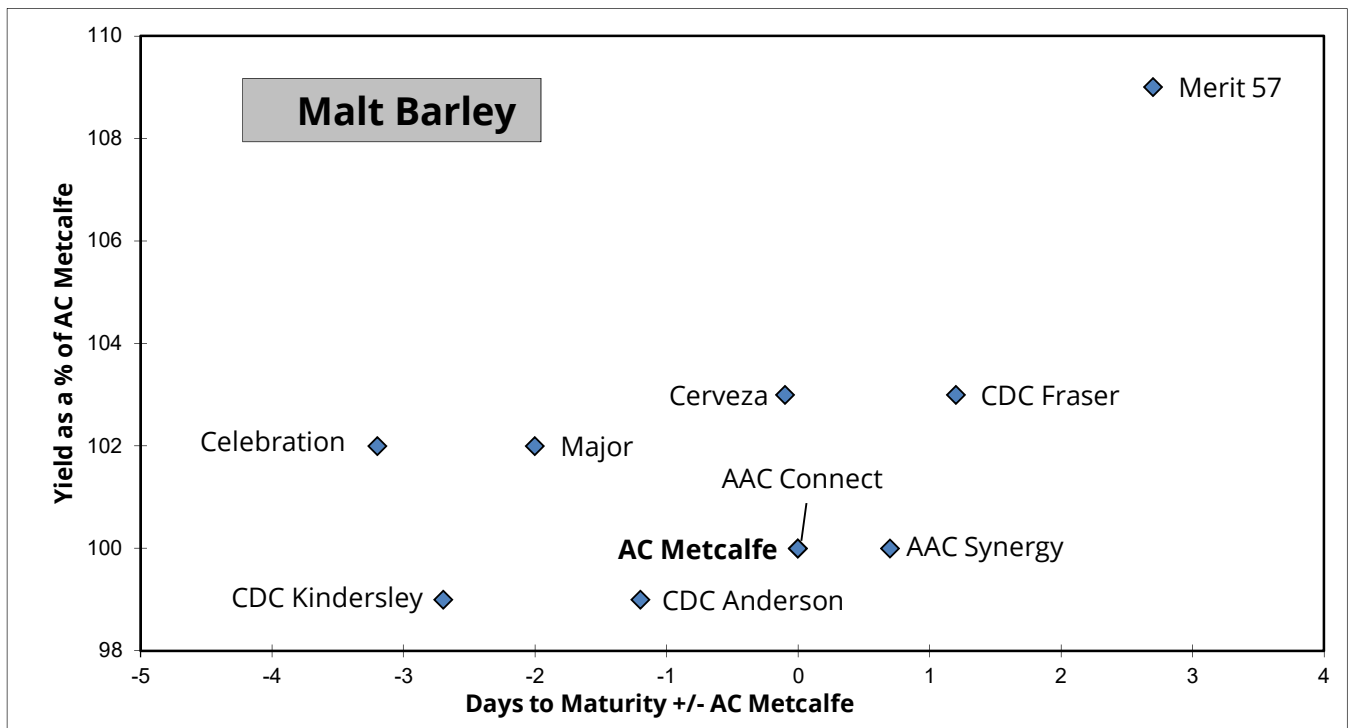


Average maturity for AC Metcalfe is 84 days for 2017





Overall average maturity for AC Metcalfe is 89 days





# CANOLA

Argentine Canola			Yield as % of 5440							
Variety	Type	South Peace			North Peace			BC Peace		
		2017	2012-2017	Stn.	2017	2012-2017	Stn.	2017	2012-2017	Stn.
		% of check	Avg. (%)	Yrs.	% of check	Avg. (%)	Yrs.	Avg. (%)	Avg. (%)	Yrs.
4187 RR *	Roundup Ready®				103	103	[1]	103	103	[1]
43E03	Roundup Ready®		92	[2]	101	93	[3]	101	92	[5]
45H29 Δ	Roundup Ready®		95	[5]	98	95	[6]	98	95	[11]
45H31	Roundup Ready®		92	[4]	86	93	[5]	86	92	[9]
45H33	Roundup Ready®		96	[2]	103	96	[4]	103	96	[6]
45M35 *	Roundup Ready®				113	113	[1]	113	113	[1]
46H75 *	Clearfield®				102	102	[1]	102	102	[1]
<b>5440</b>	LibertyLink®		100	[7]	100	100	[9]	100	100	[16]
5525 CL	Clearfield®		90	[6]	102	90	[7]	102	90	[13]
5545 CL *	Clearfield®				113	113	[1]	113	113	[1]
6074 RR	Roundup Ready®				108	108	[2]	108	108	[2]
6076 CR *	Roundup Ready®				102	102	[1]	102	102	[1]
6080 RR	Roundup Ready®		103	[1]	90	90	[3]	90	93	[4]
6090 RR	Roundup Ready®				102	102	[1]	102	102	[1]
74-44 BL	Roundup Ready®		99	[2]	102	97	[3]	102	98	[5]
CS2000	Roundup Ready®		91	[2]	100	96	[4]	100	94	[6]
CS2100 *	Roundup Ready®				107	107	[1]	107	107	[1]
CS2200CL	Clearfield®		103	[1]	99	95	[3]	99	97	[4]
CS2300 *	Roundup Ready®				108	108	[1]	108	108	[1]
DL1634 RR Δ *	Roundup Ready®				105	105	[1]	105	105	[1]
EXP1-17 *					84	84	[1]	84	84	[1]
EXP3-17 *					112	112	[1]	112	112	[1]
Fusion	Roundup Ready®		83	[4]	98	90	[5]	98	87	[9]
L120	LibertyLink®		97	[4]	94	95	[5]	94	96	[9]
L130	LibertyLink®		99	[4]	109	96	[5]	109	98	[9]
L140P	LibertyLink®		98	[2]	97	87	[3]	97	91	[5]
L241C *	Libertylink®				109	109	[1]	109	109	[1]
Pv 200 CL *	Clearfield®				103	103	[1]	103	103	[1]
PV 530 G *	Roundup Ready®				87	87	[1]	87	87	[1]
PV 531 G	Roundup Ready®		90	[2]	99	88	[3]	99	89	[5]
PV 540 G *	Roundup Ready®				100	100	[1]	100	100	[1]
PV 580 GC *	Roundup Ready®				86	86	[1]	86	86	[1]
PV 581 GC *	Roundup Ready®				99	99	[1]	99	99	[1]
SY 4135	Roundup Ready®		87	[1]	109	98	[2]	109	94	[3]
V12-1 *	Roundup Ready®				92	92	[1]	92	92	[1]
VR 9560 CL *	Roundup Ready®				89	89	[1]	89	89	[1]
VR 9561 GS	Roundup Ready®		80	[1]	94	88	[2]	94	86	[3]
VR 9562 GC	Roundup Ready®		97	[1]	107	98	[2]	107	98	[3]
VT 500 G	Roundup Ready®		87	[3]	86	87	[4]	86	87	[7]
L252	LibertyLink®		110	[2]	109	107	[4]	109	108	[6]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 7.93%, 15.55%

Δ PBR pending

⊗ protected by Plant Breeders Rights

⊗<sup>91</sup> protected by Plant Breeders Rights, UPOV91

\* first year tested, very limited data

δ specialty oil variety

△ Club-root resistance

⊗ Sclerotinia resistance

⌘ direct-cut ability/shatter resistance

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

LibertyLink® is a registered trademark of Bayer CropScience

Clearfield® is a registered trademark of BASF

**Note:** "System Varieties" (Clearfield®, Roundup Ready®, or LibertyLink®) are grown together with "conventional" Argentine

# Argentine Canola

## Variety Descriptions

Variety	Type	Herbicide Tolerance	BC Peace Average Days to Swathing as +/- check		Blackleg Rating <small>(Data from Various info.)</small>
			2017	2012-2017	
4187 RR *	HYB	Roundup Ready®	1.3	1.3	R
43E03	HYB	Roundup Ready®	0.0	-0.4	MR
45H29 Δ	HYB	Roundup Ready®	2.7	0.0	R
45H31	HYB	Roundup Ready®	-1.3	0.6	R
45H33	HYB	Roundup Ready®	-2.9	-0.4	R
45M35 *	HYB	Roundup Ready®	-1.7	0.8	R
46H75 *	HYB	Clearfield®	-1.5	-1.5	R
<b>5440</b>	HYB	LibertyLink®	0.0	0.0	R
5525 CL	HYB	Clearfield®	-0.6	1.5	R
5545 CL *	HYB	Clearfield®	-4.0	-4.0	R
6074 RR	HYB	Roundup Ready®	4.6	2.8	R
6076 CR *	HYB	Roundup Ready®	-1.7	-1.7	R
6080 RR	HYB	Roundup Ready®	-0.4	1.3	R
6090 RR	HYB	Roundup Ready®	-0.2	-0.2	R
74-44 BL	HYB	Roundup Ready®	-0.7	-0.1	R
CS2000	HYB	Roundup Ready®	-0.6	0.5	R
CS2100 *	HYB	Roundup Ready®	-2.0	-2.0	R
CS2200CL	HYB	Clearfield®	2.5	2.2	R
CS2300 *	HYB	Roundup Ready®	-2.2	-2.2	R
DL1634 RR Δ *	HYB	Roundup Ready®	-1.5	-1.5	R
EXP1-17 *	-	-	-2.0	-2.0	XX
EXP3-17 *	-	-	3.4	3.4	XX
Fusion	HYB	Roundup Ready®	1.4	-0.3	R
L120	HYB	LibertyLink®	0.7	-0.4	R
L130	HYB	LibertyLink®	-1.6	-0.1	R
L140P	HYB	LibertyLink®	-1.0	0.2	R
L241C *	HYB	Libertylink®	-3.2	-3.2	R
PV 200 CL *	HYB	Clearfield®	-1.2	-1.2	R
PV 530 G *	HYB	Roundup Ready®	4.7	4.2	MR
PV 531 G	HYB	Roundup Ready®	6.0	2.6	R
PV 540 G *	HYB	Roundup Ready®	-4.0	0.3	R
PV 580 GC *	HYB	Roundup Ready®	10.0	7.7	MR
PV 581 GC *	HYB	Roundup Ready®	-0.5	-0.5	R
SY 4135	HYB	Roundup Ready®	2.4	0.3	R
V12-1 *	HYB	Roundup Ready®	-3.0	-3.0	R
VR 9560 CL *	HYB	Roundup Ready®	5.7	4.6	R
VR 9561 GS	HYB	Roundup Ready®	0.4	0.7	R
VR 9562 GC	HYB	Roundup Ready®	5.4	2.5	R
VT 500 G	HYB	Roundup Ready®	3.7	1.6	R
L252	HYB	LibertyLink®	1.9	0.8	R

Average 'days to swathing' for 5440 is 102 days for 2017

Overall Average 'days to swathing' for 5440 is 107 days for 2012-2017

Δ PBR pending

⌘ protected by Plant Breeders Rights

⌘<sup>91</sup> protected by Plant Breeders Rights, UPOV91

\* first year tested, very limited data

δ specialty oil variety

△ Club-root resistance

⌘ Sclerotinia resistance

⌘ direct-cut ability/shatter resistance

**VG** = Very Good, **G** = Good, **F** = Fair, **P** = Poor, **VP** = Very Poor

**XX** = Insufficient Data

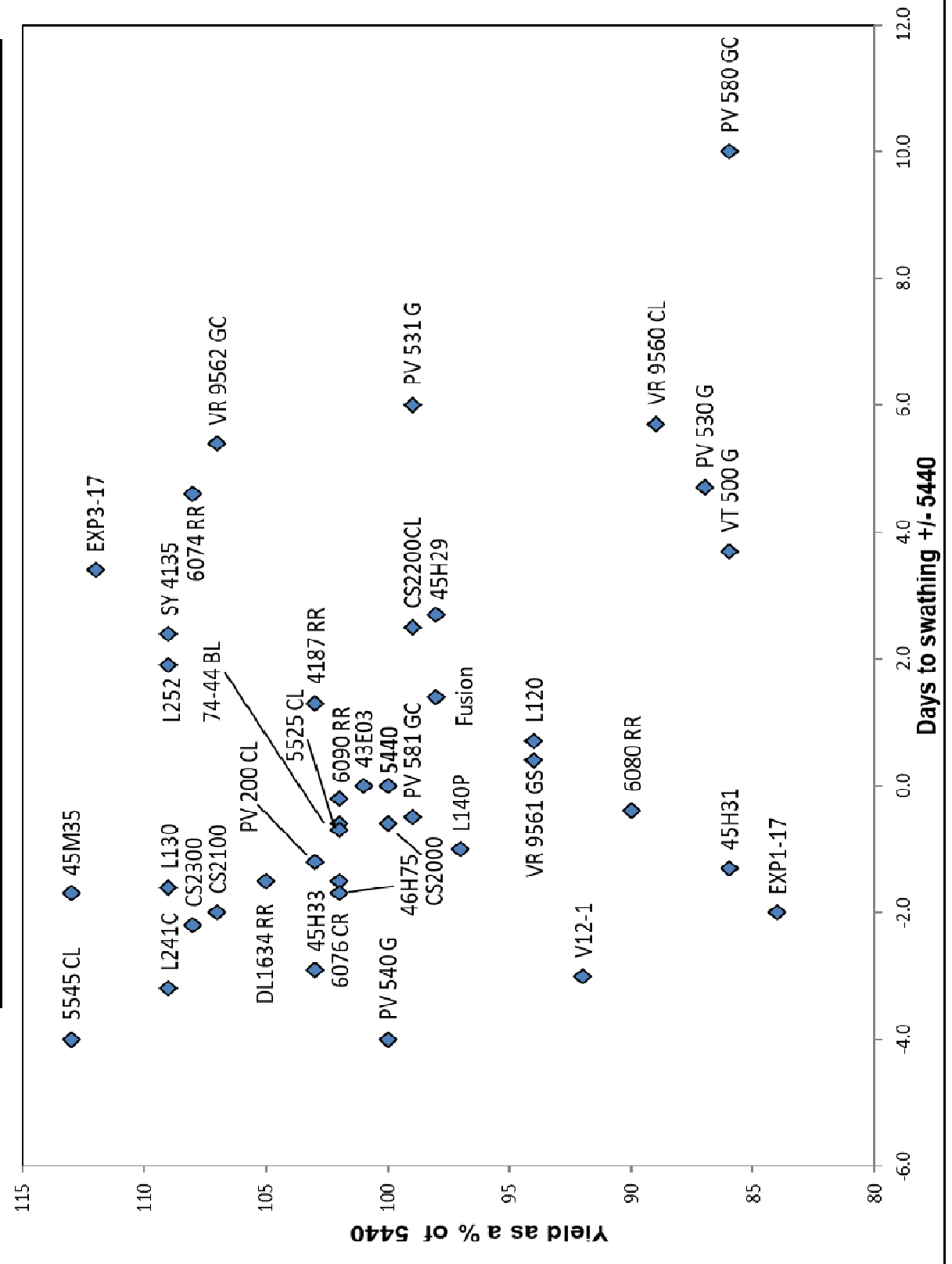
**R** = Resistant, **MR** = Moderately Resistant, **I** = Intermediate Resistance, **MS** = Moderately Susceptible, **S** = Susceptible

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

LibertyLink® is a registered trademark of Bayer CropScience

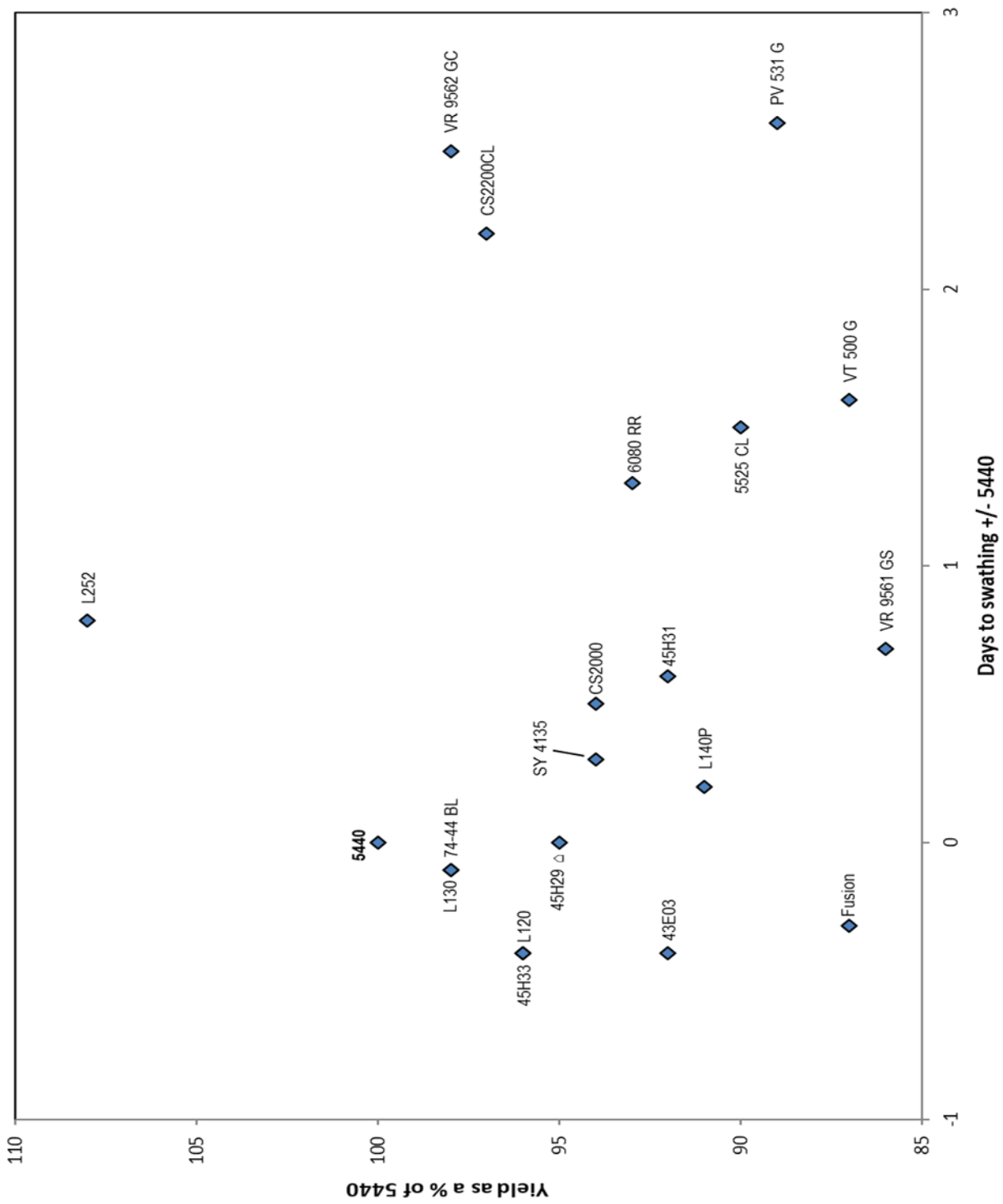
Clearfield® is a registered trademark of BASF

**Argentine Canola Variety Performance 2017**



Average days to swathing for 5440 is 102 days for 2017

**Argentine Canola Variety Performance 2012 - 2017**



Overall average days to swathing for 5440 is 107 days

# OAT

Oat is usually a feed crop but some varieties are also suitable for higher value feed and food markets. The milling industry prefers higher protein varieties with plump kernels and lower hull content, while the horse industry prefers white hulled varieties. Hulless oat varieties have excellent feed and food value but need to be stored drier than normal varieties (<12% moisture) and do not flow as well in the bin due to their pubescence (hairs), which seem to "lock together". The exception to this "hairy-hulless" issue are newer hulless varieties like *Gehl*, (previously tested), which are "*low pubescence* hulless" oat varieties aimed at a replacement for rice actually, hence the marketing slogan "prairie rice" for *Gehl*. Unfortunately our tests have found hairless-hulless oat lines to be very sensitive to our cold wet spring soils which can lower emergence to economically damaging levels, and so until newer more robust lines come available hairless-hulless oat are no longer being tested in our region. Yield values for hulless oat varieties are expressed after hull removal, which reduces the seed weight by 20-25% compared to the normal varieties. (See earlier reports for more information on "hulless" types).

Oat		Yield as % of CDC Dancer										
Variety	Colour	South Peace			North Peace			BC Peace				
		2017 Yield		2012-2017	2017 Yield		2012-2017	2017	2012-2017			
		bu / acre	% of check	Avg. (%)	Stn. Yrs.	bu / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AC Morgan	White					158	106	107	[5]	106	107	[5]
Akina <sup>91</sup>	White			104	[1]	148	95	106	[3]	95	106	[4]
CDC Arborg *	White					170	110	110	[1]	110	110	[1]
<b>CDC Dancer</b> <sup>91</sup>	White			100	[5]	153	100	100	[11]	100	100	[16]
CDC Ruffian <sup>91</sup>	Yellow			97	[3]	164	105	105	[4]	105	101	[7]
Kara <sup>91</sup>	White					159	105	104	[2]	105	104	[2]
Kyron Δ*	White					172	112	112	[1]	112	112	[1]
ORe3542M *	White					136	89	89	[1]	89	89	[1]
ORe354M *	White					131	89	89	[1]	89	89	[1]
Pomona Δ*	White					139	94	94	[1]	94	94	[1]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 5.51%

Δ PBR pending

\* first year tested, very limited data

<sup>91</sup> protected by Plant Breeders Rights

<sup>91</sup> protected by Plant Breeders Rights, UPOV91



## Health Benefits Of Oat

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

Oat			Variety Description				
Variety	Use	BC Peace Averages			Alberta Agdex 100/32 info		
		2012-2017			Tolerance to:		
		Maturity as days +/- check	Height cm	Bushel Weight lbs/bu	Lodging	Smuts	
AC Morgan	Milling	3.2	111	44	VG	I	
Akina <sup>91</sup>	Milling	1.8	92	42	G	XX	
CDC Arborg *	Milling	3.7	115	44	G	R	
<b>CDC Dancer</b> <sup>91</sup>	Milling	0.0	99	43	G	R	
CDC Ruffian <sup>91</sup>	Milling	5.2	87	42	G	R	
Kara <sup>91</sup>	Milling	3.3	102	44	VG	MR	
Kyron $\Delta$ *	Milling	2.7	100	44	VG	XX	
ORe3542M *	-	2.3	102	44	XX	XX	
ORe354M *	-	3.3	100	46	XX	XX	
Pomona $\Delta$ *	-	4.3	111	46	G	XX	

$\Delta$  PBR pending

<sup>91</sup> protected by Plant Breeders Rights

\* first year tested, very limited data

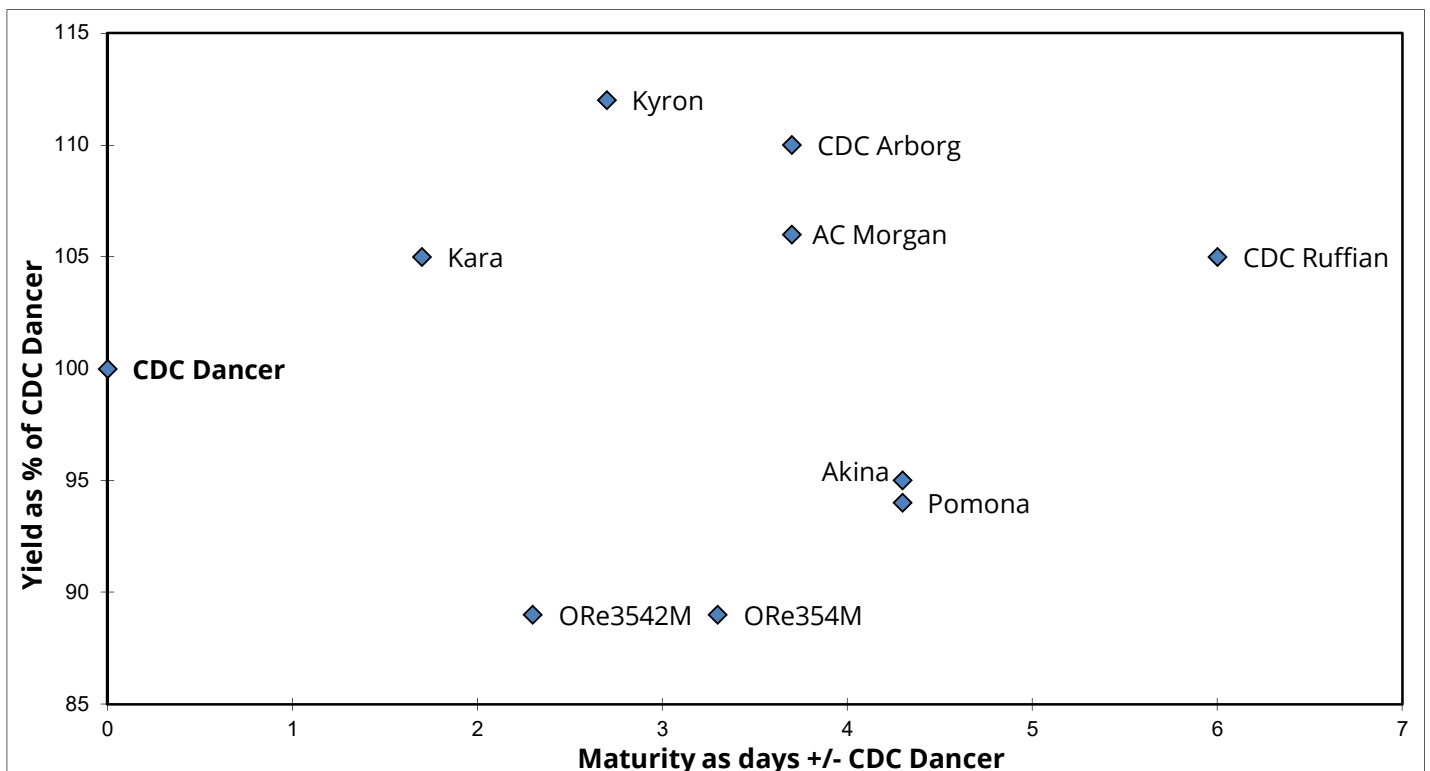
<sup>91</sup> protected by Plant Breeders Rights, UPOV91

**XX**= insufficient data

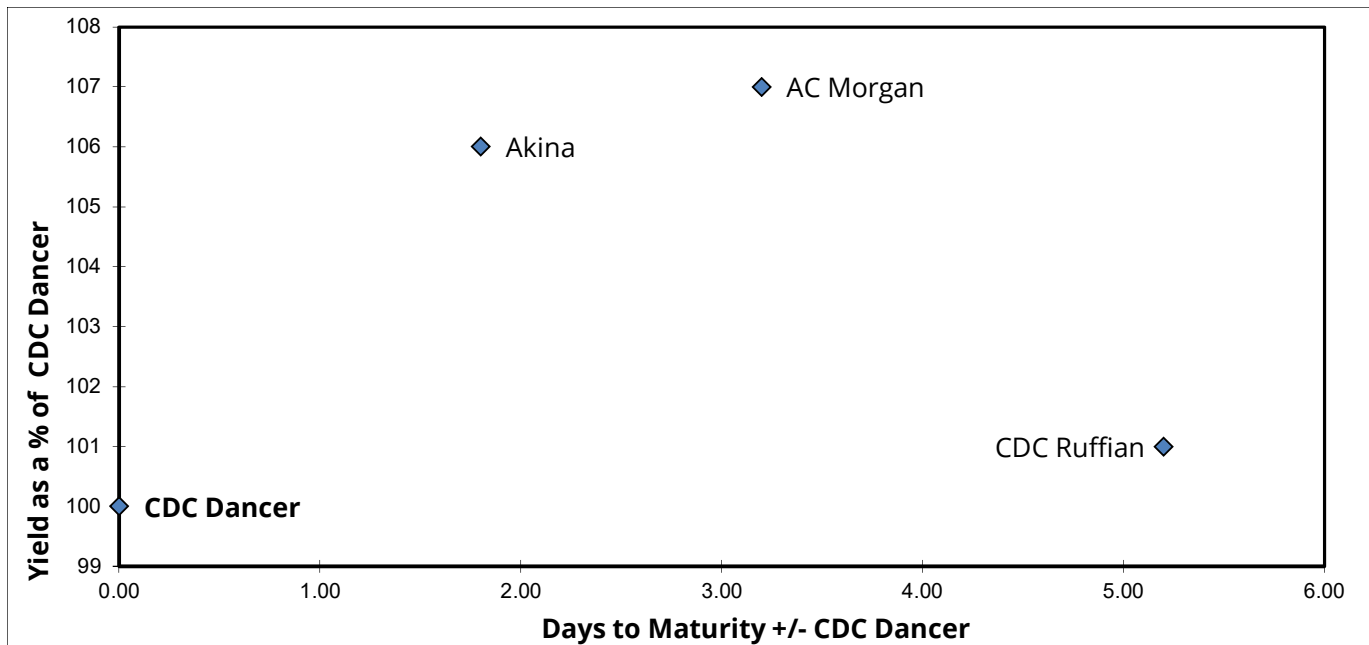
**VG** = Very Good, **G** = Good, **F** = Fair, **P** = Poor, **VP** = Very Poor

**R** = Resistant, **MR** = Moderately Resistant, **I** = Intermediate Resistance, **MS** = Moderately Susceptible, **S** = Susceptible

## Oat 2017



Average maturity for CDC Dancer is 87 days for 2017



Overall average maturity for CDC Dancer is 91 days

### Oat for Feed

Oats are often sown to provide fodder in the form of silage or greenfeed. Oats will yield more silage or greenfeed per unit area than any other cereal crop. If managed properly, it can provide 3-4.5 tons of dry matter per acre, or more, of high quality feed containing up to 10 percent protein<sup>1</sup>. Many years of comparing yields of oats with barley have shown oats to be superior in the Black and Grey Wooded soil zones<sup>1</sup>. 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<sup>1</sup>. Oats have about 22-26 percent hull whereas barley averages about 12-14 per cent hull on a weight basis<sup>1</sup>. 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<sup>1</sup>. We do not currently evaluate oat varieties for forage yield in these tests.

### Forage Oat

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

### Other Comments

On heavier soils and in the more moist areas, lodging resistance should be considered, but again, traditionally lodging has not been a concern in our BC Peace oat trials, and as mentioned above, lodging data provided here is from Alberta Agdex 100/32. The variation in straw feed quality between oat varieties is insignificant and should not be used as a variety selection criterion<sup>3</sup>. The average feed values are: protein 4%, fibre 49%, calcium 0.27%, and phosphorus 0.08%<sup>3</sup>. Source<sup>1,2,3</sup>: Alberta Agriculture, Food, and Rural Development website [www.agric.gov.ab.ca](http://www.agric.gov.ab.ca)

# FIELD PEA

Field Pea (Green Seed)		Yield as % of CDC Limerick										
Variety	**Designated	South Peace				North Peace				BC Peace		
	Powdery	2017 Yield		2012 - 2017		2017 Yield		2012 - 2017		2017		2012 - 2017
	Mildew	bu /	% of	Avg. Stn.	bu /	% of	Avg. Stn.	Avg. Stn.	Avg. Stn.	Avg. Stn.	Avg. Stn.	
	Resistant	acre	check	(%) Yrs.	acre	check	(%) Yrs.	(%)	(%)	(%)	(%)	
AAC Comfort ☼*	R				78	113	113	[1]	113	113	[1]	
AAC Royce	R			108 [4]	72	104	97	[5]	104	102	[9]	
CDC Forest ☼ <sup>91</sup> *	R				80	116	116	[1]	116	116	[1]	
<b>CDC Limerick</b>	R			100 [7]	64	100	100	[9]	100	100	[16]	
CDC Meadow	R			106 [2]	60	101	94	[3]	101	99	[5]	
CDC Patrick	R			109 [5]	67	113	104	[6]	113	106	[11]	
CDC Pluto	R			111 [5]	72	123	97	[6]	123	103	[11]	
CDC Raezer	R			111 [5]	66	112	96	[6]	112	103	[11]	
LRP 1424 Δ*	R				76	111	111	[1]	111	111	[1]	

Coefficient of Variance (CV) values for 2017 were as follows: NP = 15.28%, 7.14%

Δ PBR pending

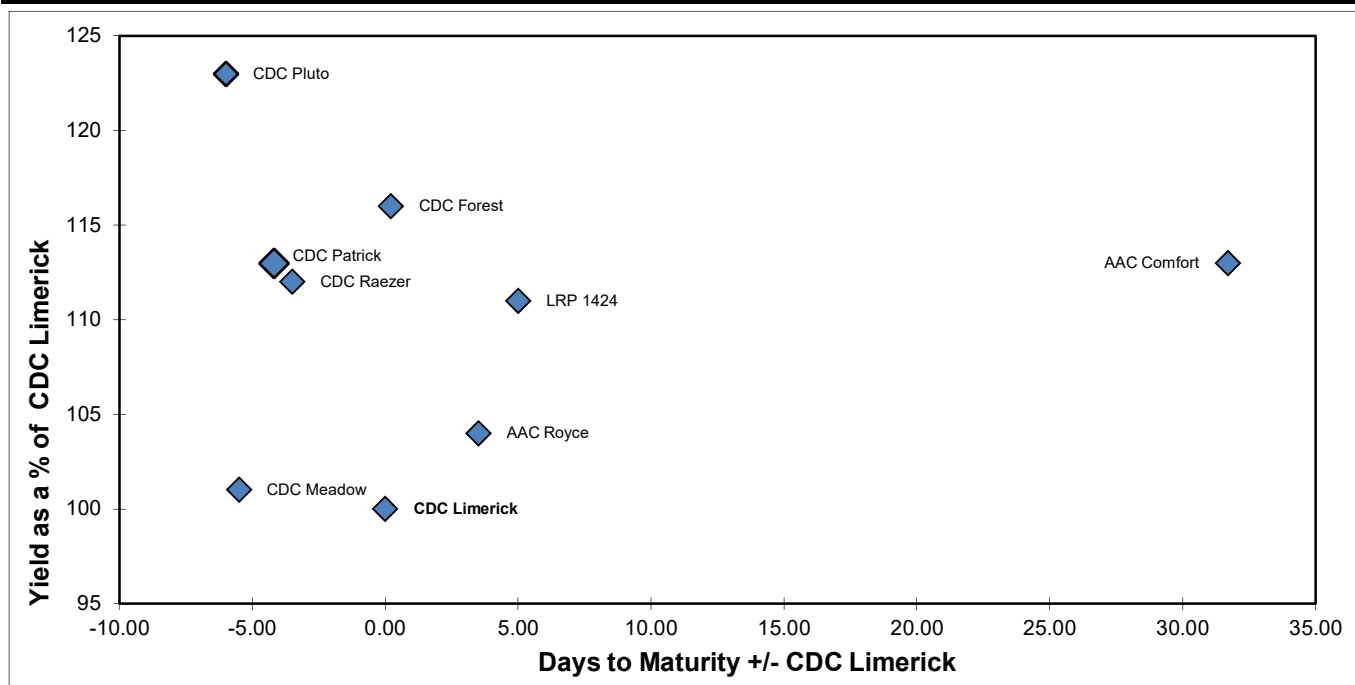
\* first year tested, very limited data

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\*\*Powdery Mildew resistance: **R** = Resistant **S** = Susceptible (data: Alberta Seed Guide)

## Field Pea - Green Seed 2017



Average maturity for CDC Limerick is 102 days for 2017



Field Pea (Yellow Seed)		Yield as % of CDC Amarillo										
		**Designated	South Peace				North Peace				BC Peace	
Variety	Powdery	2017 Yield		2012-2017		2017 Yield		2012-2017		2017	2012-2017	
	Mildew	bus /	% of	Avg.	Stn.	bus /	% of	Avg.	Stn.	Avg.	Avg.	Stn.
	Resistant	acre	check	(%)	Yrs.	acre	check	(%)	Yrs.	(%)	(%)	Yrs.
AAC Barrhead	R			102	[1]	78	99	102	[2]	99	102	[3]
AAC Carver	R			107	[4]	90	113	107	[5]	113	107	[9]
AAC Chrome*	R					88	111	111	[1]	111	111	[1]
AAC Lacombe	R			112	[3]	80	103	105	[4]	103	108	[7]
AAC Peace River	R			99	[5]	67	89	88	[6]	89	93	[11]
Abarth	R			102	[5]	74	98	95	[6]	98	98	[11]
Agassiz	R			99	[5]	71	94	92	[6]	94	95	[11]
<b>CDC Amarillo</b>	R			100	[7]	77	100	100	[9]	100	100	[16]
CDC Athabasca	R					69	87	87	[1]	87	87	[1]
CDC Canary*	R					68	87	87	[1]	87	87	[1]
CDC Meadow	R			97	[6]	63	82	91	[8]	82	93	[14]
CDC Spectrum	R					70	88	88	[1]	88	88	[1]
Earlstar	R			99	[4]	82	109	103	[5]	109	101	[9]
LGPN 4903*	R					79	100	100	[1]	100	100	[1]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 8.9%, 6.6%

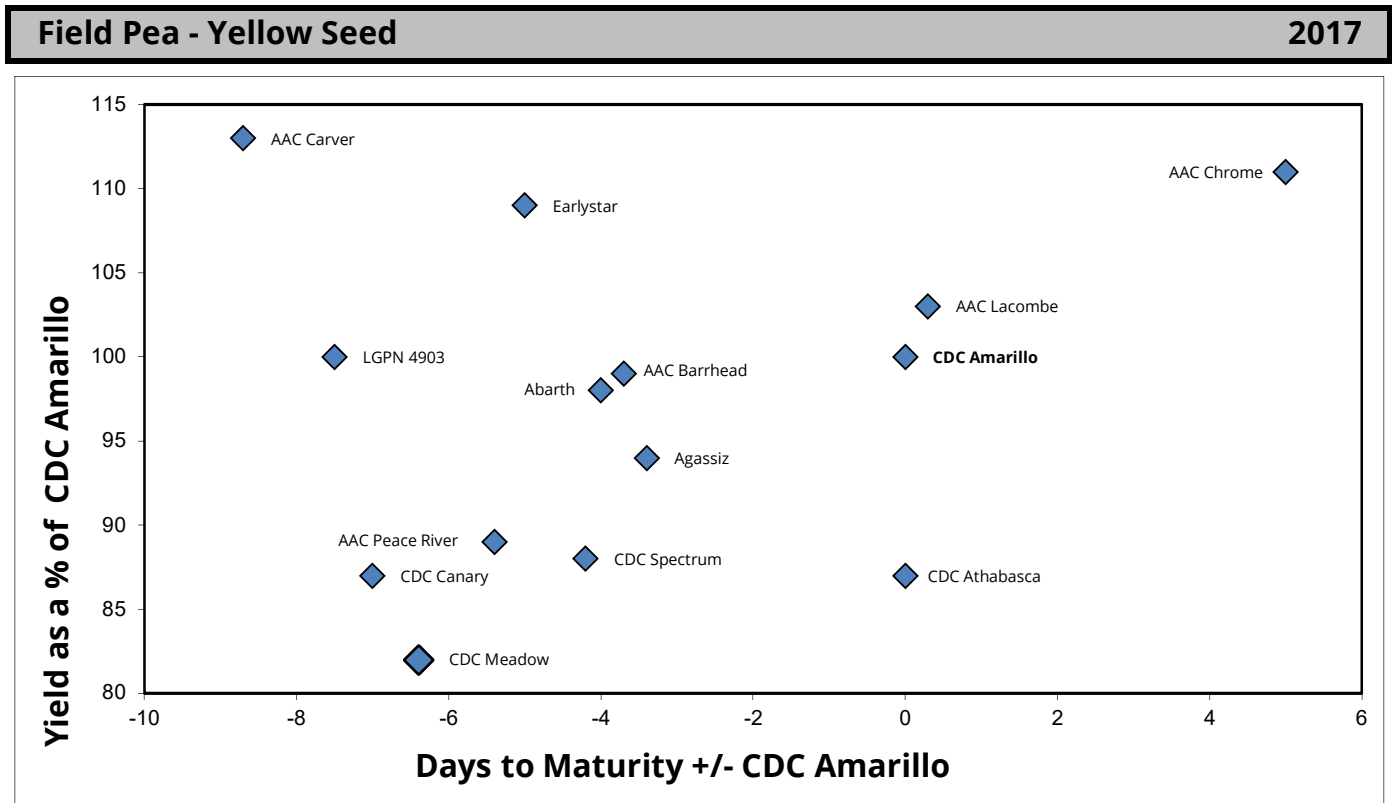
Δ PBR pending

\* first year tested, very limited data

☼ protected by Plant Breeders Rights

☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

\*\*Powdery Mildew resistance: R = Resistant S = Susceptible (data: Alberta Seed Guide)



Average maturity for CDC Amarillo is 103 days for 2017

## Field Peas

## Variety Descriptions

Variety	BC Peace Averages 2012-2017			
	Maturity as days +/- check	Vine Length cm	(Alberta data) Lodging 1-9**	TKW g/1000
<b>Yellow Seed</b>				
AAC Barrhead ☼	-1.2	103	3	252
AAC Carver ☼	-2.4	85	3.9	248
AAC Chrome	5.0	106	3.9	253
AAC Lacombe ☼	0.5	82	2.3	267
AAC Peace River	-4.7	78	3.8	229
Abarth ☼ <sup>91</sup>	-4.1	76	3.6	264
Agassiz ☼	-2.1	95	2.9	238
<b>CDC Amarillo</b>	0.0	83	2.5	239
CDC Athabasca ☼ <sup>91</sup>	0.0	122	2.6	289
CDC Canary	-7.0	123	3.4	258
CDC Meadow	-2.5	83	3.6	220
CDC Spectrum ☼	-4.2	116	2.5	232
AC Earlystar ☼	-3.5	82	5.0	228
LGPN 4903	-7.5	121	3.2	253
<b>Green Seed</b>				
AAC Comfort ☼*	31.7	104	3.7	262
AAC Royce	-1.9	64	2.8	264
CDC Forest ☼ <sup>91</sup> *	0.2	118	2.6	259
<b>CDC Limerick</b>	0.0	77	3.0	224
CDC Meadow	-8.3	77	3.6	216
CDC Patrick	-2.7	74	4.4	193
CDC Pluto	-7.6	71	6.0	181
CDC Raezer	-3.2	79	4.2	238
LRP 1424 Δ*	5.0	112	3.1	227

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

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

Overall average maturity for CDC Limerick is 99 days  
Overall average maturity for CDC Amarillo is 97 days

Δ PBR pending

\* first year tested, very limited data

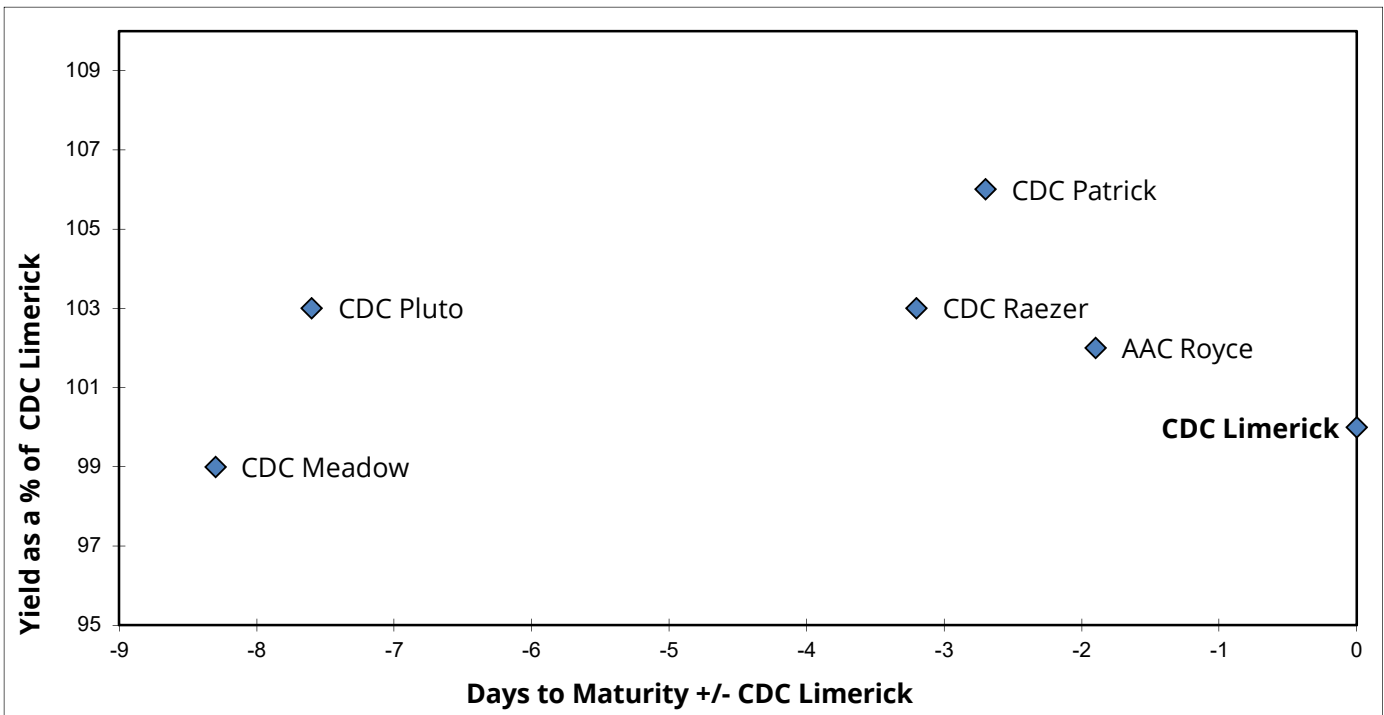
\*\* 1 - 9 scale; 1 = none, 9 = 100% affected; source Alberta testing as lodging not frequent enough in BC tests

☼ protected by Plant Breeders Rights

☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

## Field Pea - Green Seed

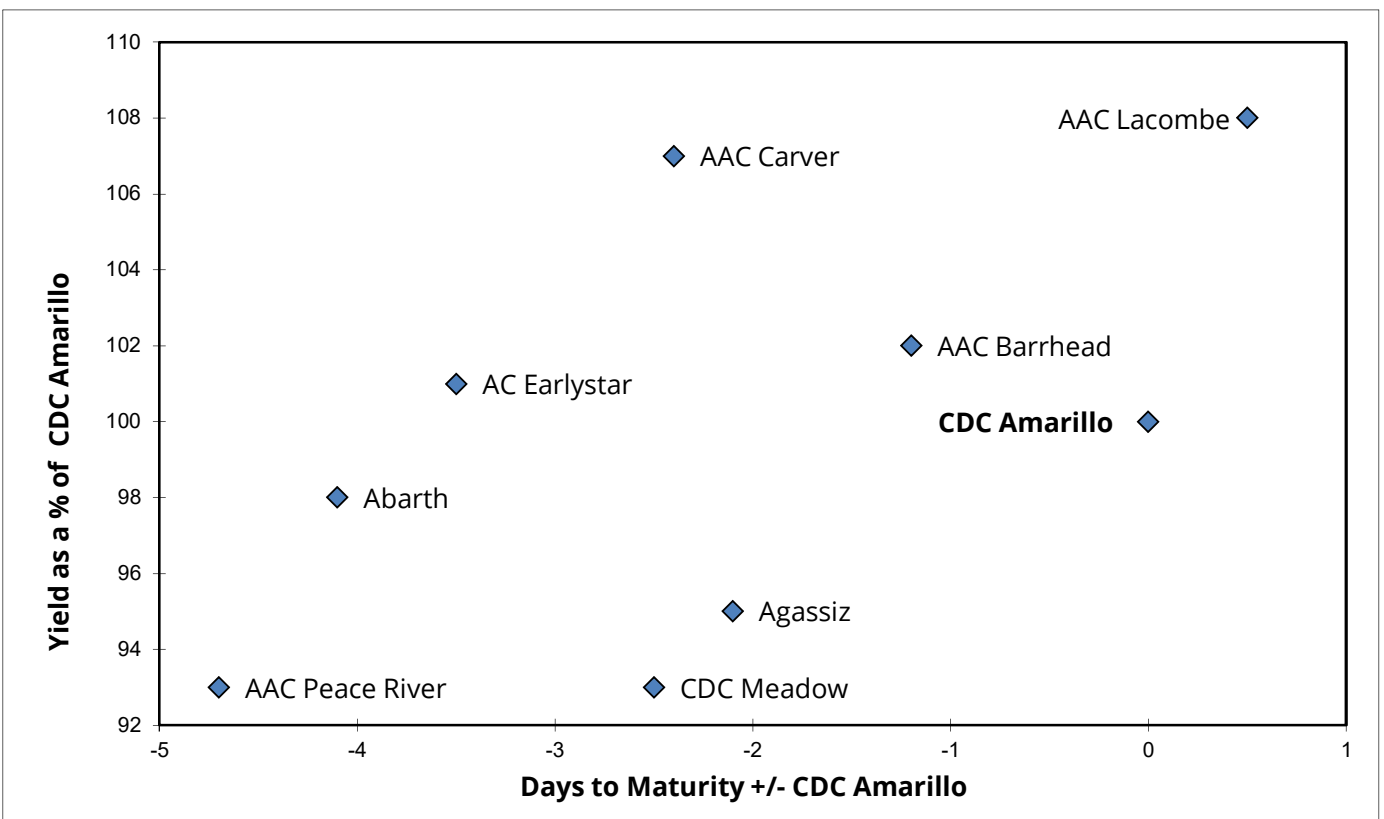
2012 - 2017



Overall average maturity for CDC Limerick is 99 days

## Field Pea - Yellow Seed

2012 - 2017



Overall average maturity for CDC Amarillo is 97 days

# SPRING TRITICALE

Triticale is a genetic cross (not a hybrid) developed by crossing wheat (*Triticum turgidum* or *Triticum aestivum*) with rye (*Secale cereal*). Most varieties of spring triticale currently available are approximately 10 days or more later maturing than CWRS wheat, and as such they should not be grown in the B.C. Peace River region for grain production. However, a few varieties are proving to be earlier than traditional spring triticale varieties, and perhaps as breeding continues earlier lines may come along that can be grown here for grain with a consistent and early enough maturity. Their high grain yields are "attention grabbers", and so it is worth watching their development, especially as triticale seems to hold a lot of potential for ethanol production in the Peace River region if breeding efforts could produce earlier maturing lines. Drought tolerance is the primary advantage that spring triticales have over other spring cereal crops. Spring triticales are also a valuable alternative or compliment to barley & oat as forage feed, but current triticale lines do tend to have low resistance to Ergot, likely due to late maturity. This may become less of a concern as earlier lines are bred. It is for these reasons, especially its potential use as a high volume ethanol feedstock, that data is included in this report.

Spring Triticale		Yield as % of Brevis									
Variety	South Peace				North Peace				BC Peace		
	2017 Yield		2012-2017		2017 Yield		2012-2017		2017	2012-2017	
	bu / acre	% of check	Avg. (%)	Stn. Yrs.	bu / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
AAC Delight Δ					123	93	89	[2]	93	89	[2]
<b>Brevis</b>			100	[3]	125	100	100	[5]	100	100	[8]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 6.61%

Δ PBR pending

\* first year tested, very limited data

⊗ protected by Plant Breeders Rights

⊗<sup>91</sup> protected by Plant Breeders Rights, UPOV91

§ Awnless

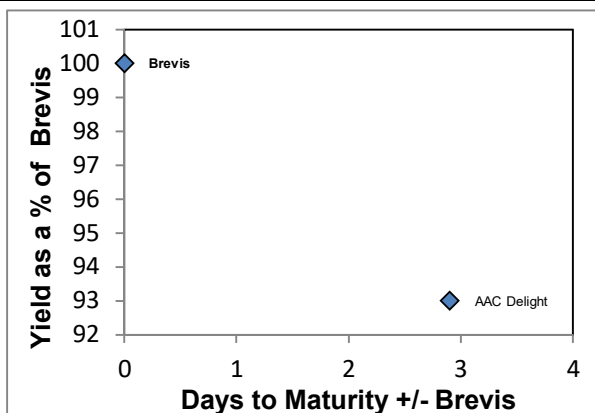
XX = insufficient data

VG = Very Good, G = Good, F = Fair, P = Poor, VP = Very Poor

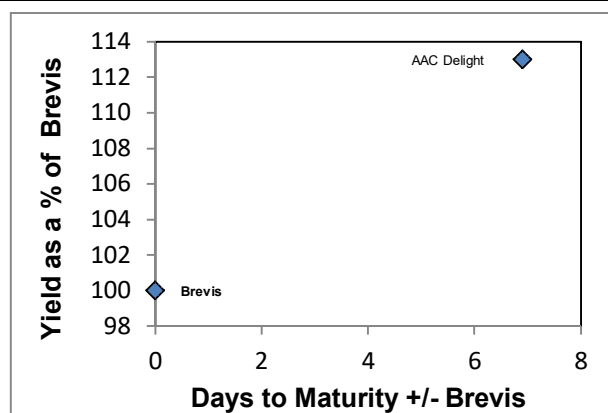
R = Resistant, MR = Moderately Resistant, I = Intermediate Resistance, MS = Moderately Susceptible, S = Susceptible

Spring Triticale		Variety Descriptions								
Variety	BC Peace Averages 2012-2017				Alberta Agdex 100/32					
	Maturity		Bushel		TKW (g/1000)	Resistance to:				
	as days +/- check	Height (cm)	Weight (lbs/bus)	Lodging		Ergot	Common Bunt	Sprouting	FHB	
AAC Delight Δ	2.9	111	57	57	G	MR	R	XX	I	
<b>Brevis</b>	0.0	96	60	45	G	MR	R	F	I	

Regional Variety Performance 2012-2017



Regional Variety Performance 2017



Overall average maturity for Brevis is 116 days

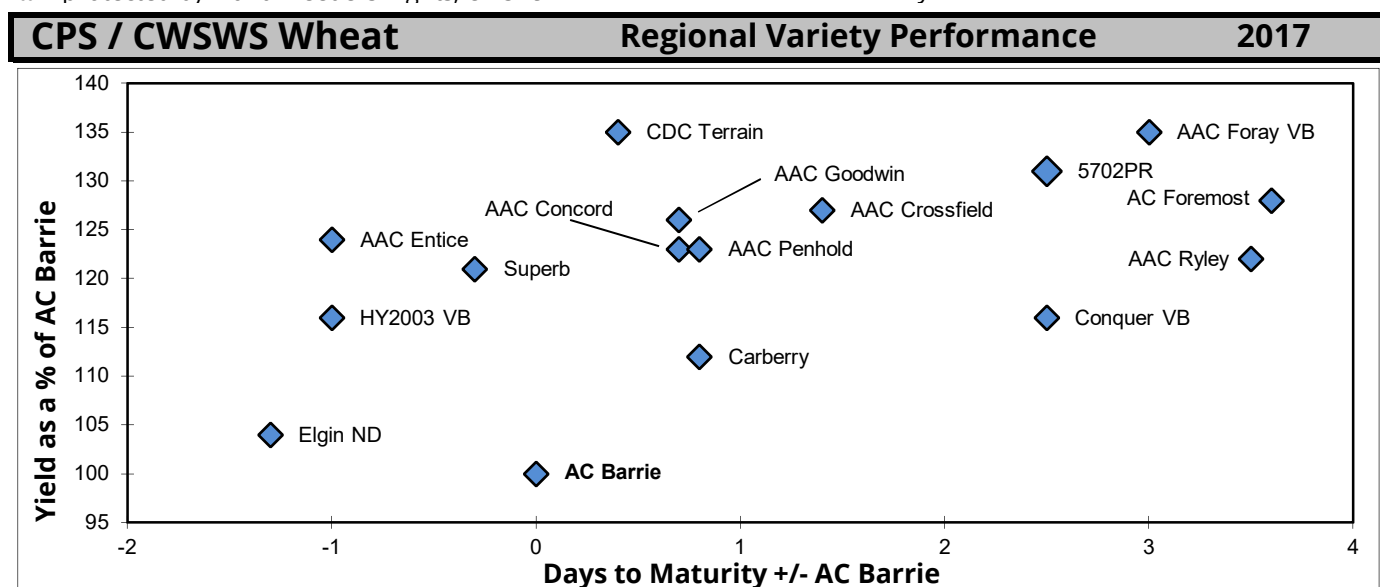
# CANADA PRAIRIE SPRING - CANADA WESTERN SPECIAL PURPOSE AND SOFT WHITE SPRING

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

CPS / CWSP / CWSWS Wheat		Yield as % of AC Barrie										
Variety	Type	South Pearce				North Peace				BC Peace		
		2017 Yield		2012-2017		2017 Yield		2012-2017		2017	2012-2017	
		bu / acre	% of check	Avg. (%)	Stn. Yrs.	bu / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
5702PR ☼	CPS-red			133	[4]	103	131	125	[5]	131	129	[9]
AAC Concord ☼*	CNHR					96	123	123	[1]	123	123	[1]
AAC Crossfield ☼ <sup>91</sup>	CPS-red			131	[1]	98	127	124	[3]	127	125	[4]
AAC Entice Δ	CWRS			133	[1]	96	124	127	[2]	124	129	[3]
AAC Foray VB ☼ <sup>91</sup>	CPS-red			130	[4]	102	135	131	[5]	135	131	[9]
AAC Goodwin Δ*	CPS-red					96	126	126	[1]	126	126	[1]
AAC Penhold ☼ <sup>91</sup>	CPS-red			123	[4]	93	123	119	[6]	123	121	[10]
AAC Ryley ☼	CPS			121	[4]	95	122	117	[5]	122	119	[9]
<b>AC Barrie</b>	CWRS			100	[7]	76	100	100	[12]	100	100	[19]
AC Foremost	CPS-red			126	[3]	99	128	123	[5]	128	124	[8]
Carberry ☼	CWRS			111	[5]	86	112	105	[10]	112	107	[15]
CDC Terrain Δ*	CWRS					105	135	135	[1]	135	135	[1]
Conquer VB ☼	CPS-red			122	[4]	89	116	113	[5]	116	117	[9]
Elgin ND ☼ <sup>91</sup>	CNHR			120	[1]	80	104	109	[3]	104	112	[4]
HY2003 VB Δ*	CNHR					90	116	116	[1]	116	116	[1]
Superb ☼	CWRS			114	[5]	92	121	116	[7]	121	115	[12]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 7.66%, 8.09%

- Δ PBR pending
- ☼ protected by Plant Breeders Rights
- ☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91
- ☼ Clearfield® Tolerant varieties
- \* first year tested, very limited data
- § Awnless
- ¥ semi-dwarf variety



Average maturity for AC Barrie is 99 days for 2017

# CPS / CWSWS Wheat

# Variety Descriptions

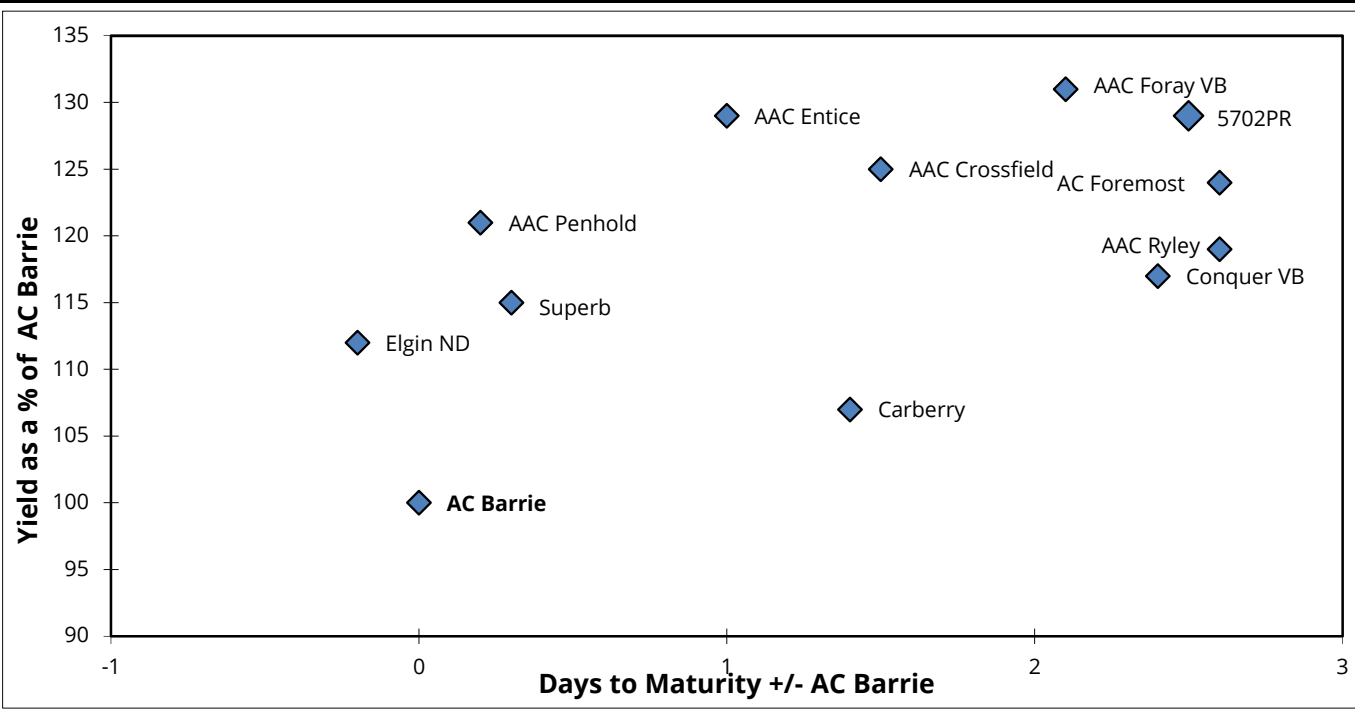
Variety	Type	BC Peace Averages				Alberta Agdex 100/32							
		2012-2017				Resistance to:							
		Maturity in days	Height	Bushel Weight	Kernel Protein %	Lodging	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB	
		+/- check	cm	lbs/bu	+/- check								
5702PR ☼	CPS-red	2.5	88	63	-2 [7]	G	P	MS	I	MS	I	MS	
AAC Concord ☼*	CNHR	0.7	108	66	-1 [1]	F	F	I	MR	R	I	MS	
AAC Crossfield ☼ <sup>91</sup>	CPS-red	1.5	84	65	-1 [4]	G	XX	MS	I	R	I	I	
AAC Entice Δ	CPS-red	1.0	80	64	-1 [3]	G	XX	MS	S	R	MS	I	
AAC Foray VB ☼ <sup>91</sup>	CPS-red	2.1	90	65	-2 [7]	G	G	MS	I	MR	MS	MS	
AAC Goodwin Δ*	CWRS	0.7	88	67	-1 [1]	VG	G	MS	MS	R	I	I	
AAC Penhold ☼ <sup>91</sup>	CPS-red	0.2	75	66	-1 [8]	VG	G	I	R	MR	I	MR	
AAC Ryley ☼	CPS-red	2.6	85	63	-1 [7]	G	G	I	R	S	MS	MS	
<b>AC Barrie</b>	CWRS	0.0	93	65	0 [16]	G	G	MR	I	S	MS	I	
AC Foremost	CPS-red	2.6	76	64	-2 [6]	VG	F	I	R	S	MS	S	
Elgin ND ☼ <sup>91</sup>	CNHR	-0.2	93	65	0 [4]	G	XX	XX	S	MR	I	I	
HY2003 Δ*	CNHR	-1.0	88	66	-2 [1]	XX	XX	XX	XX	XX	XX	XX	
Superb ☼	CWRS	0.3	88	65	-1 [9]	G	F	I	MR	S	S	MS	
Carberry ☼	CWRS	1.4	84	65	0 [12]	VG	F	MR	R	MR	MS	MR	
CDC Terrain Δ*	CWRS	0.4	97	66	-2 [1]	G	G	MR	MR	R	I	MS	
Conquer VB ☼	CPS-red	2.4	95	64	0 [7]	F	P	MS	R	MR	I	MS	

Overall average maturity for AC Barrie is 103 days

Overall average protein for AC Barrie is 13.6 %

Δ PBR pending      ☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91      § Awnless  
 \* first year tested, very limited      ☼ protected by Plant Breeders Rights      ¥ semi-dwarf variety  
 ☼ Clearfield® Tolerant varieties  
**VG** = very good, **G** = good, **F** = fair, **P** = Poor, **VP** = very poor, **XX** = insufficient data  
**R** = Resistant, **MR** = Moderately resistant, **I** = Intermediate resistance, **MS** = Moderately Susceptible, **S** = Susceptible

## CPS / CWSWS Wheat Regional Variety Performance 2012 - 2017



# 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 AC Barrie									
		South Peace			North Peace			BC Peace			
Variety	2017 Yield		2012-2017	2017 Yield		2012-2017	2017	2012-2017			
	bu / acre	% of Check	Avg. (%)	Station Years	bu / acre	% of Check	Avg. (%)	Station Years	Avg. (%)	Avg. (%)	Station Years
5604HR CL ☼			105	[5]	80	104	98	[6]	104	101	[11]
AAC Alida Δ*					81	112	112	[1]	112	112	[1]
AAC Bailey ☼			109	[5]	82	105	101	[6]	105	105	[11]
AAC Brandon ☼			118	[5]	85	110	114	[6]	110	116	[11]
AAC Cameron ☼			117	[2]	86	120	115	[3]	120	116	[5]
AAC Concord ☼*			114	[2]	79	112	116	[3]	112	115	[5]
AAC Connery ☼ <sup>91</sup>			114	[3]	77	109	110	[4]	109	112	[7]
AAC Elie ☼			119	[5]	89	115	112	[6]	115	115	[11]
AAC Prevail			114	[3]	84	118	106	[4]	118	110	[7]
AAC Redwater ☼ <sup>91</sup>			106	[5]	86	111	101	[6]	111	104	[11]
AAC Tisdale Δ			108	[1]	76	106	106	[2]	106	107	[3]
<b>AC Barrie</b>			100	[7]	75	100	100	[9]	100	100	[16]
Carberry ☼			108	[6]	81	108	103	[8]	108	105	[14]
Cardale ☼			104	[5]	82	104	105	[6]	104	104	[11]
CDC Adament VB			119	[1]	79	110	108	[2]	110	112	[3]
CDC Alsask			113	[5]	87	112	108	[6]	112	110	[11]
CDC Bradwell ☼ <sup>91</sup>			108	[2]	79	111	112	[3]	111	110	[5]
CDC Go			112	[5]	86	114	110	[7]	114	111	[12]
CDC Hughes VB Δ			113	[1]	77	106	101	[2]	106	105	[3]
CDC Landmark VB Δ			99	[1]	76	106	103	[2]	106	102	[3]
CDC VR Morris ☼			106	[4]	86	112	108	[5]	112	107	[9]
CDC Stanley ☼			108	[5]	89	114	106	[6]	114	107	[11]
CDC Thrive ☼			107	[5]	85	110	105	[6]	110	106	[11]
CDC Titanium			110	[4]	82	107	105	[5]	107	107	[9]
CDC Whitewood			104	[4]	83	106	103	[5]	106	104	[9]
HW388 *					78	110	110	[1]	110	110	[1]
Parata ☼ *					72	102	102	[1]	102	102	[1]
Shaw VB ☼			112	[5]	81	105	104	[6]	105	108	[11]
Stettler ☼			113	[4]	86	116	111	[6]	116	112	[10]
Superb ☼			117	[5]	92	118	113	[6]	118	115	[11]
SY Obsidian *					81	112	112	[1]	112	112	[1]
SY Slate Δ			111	[2]	76	105	106	[3]	105	108	[5]
SY Sovite ☼ <sup>91</sup>			105	[1]	77	107	101	[2]	107	102	[3]
Thorsby ☼ <sup>91</sup>			111	[4]	86	112	106	[5]	112	108	[9]
SY Chert *					80	111	111	[1]	111	111	[1]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 5.79%, 3.58%

Δ PBR pending

☼ protected by Plant Breeders Rights

☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

\* first year tested, very limited data

\*\*\* (CWHWS) Canadian Western Hard White Spring

¥ semi-dwarf variety

⌘ Clearfield® Tolerant varieties

§ Awnless

# CWRS Wheat

# Variety Descriptions

Variety	BC Peace Averages				Alberta Agdex 100/32							
	2012-2017				Resistance to:							
	Days to Maturity +/- check	Height cm	Bushel Weight lbs/bu	Kernel Protein % +/- check	Lodging	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB	
5604HR CL ☼	-3.5	89	66	-1 [9]	G	G	MS	I	XX	MS	I	
AAC Alida Δ*	-2.8	88	67	0 [1]	XX	XX	XX	XX	XX	XX	XX	
AAC Bailey ☼	-1.4	91	65	-1 [9]	G	G	MS	I	I	I	I	
AAC Brandon ☼	0.7	79	66	0 [9]	VG	P	MR	S	MR	I	MR	
AAC Cameron ☼	-1.3	96	66	0 [5]	G	F	S	R	S	I	I	
AAC Concord ☼*	0.4	92	65	-1 [5]	F	F	I	MR	R	I	MS	
AAC Connery ☼ <sup>91</sup>	-0.5	81	65	0 [7]	VG	G	MR	I	R	I	MR	
AAC Elie ☼	0.9	79	66	0 [9]	G	F	I	I	MR	I	I	
AAC Prevail	-0.2	90	65	-1 [7]	G	G	S	S	R	MS	I	
AAC Redwater ☼ <sup>91</sup>	-2.4	87	65	0 [9]	G	VG	MS	I	MR	MS	I	
AAC Tisdale Δ	-0.5	97	65	1 [3]	F	F	MR	MR	MS	MS	MR	
AC Barrie	0.0	90	65	0 [14]	G	G	MR	I	S	MS	I	
Carberry ☼	1.6	80	65	0 [12]	VG	F	MR	R	MR	MS	MR	
Cardale ☼	-0.8	82	64	-1 [9]	G	G	I	S	MS	MS	MR	
CDC Adament VB	-0.7	91	66	0 [3]	P	F	S	S	MS	MS	I	
CDC Alsask	0.0	93	64	0 [9]	F	G	MR	MR	I	S	MS	
CDC Bradwell ☼ <sup>91</sup>	1.1	85	66	0 [5]	VG	F	MR	R	MS	MS	I	
CDC Go	-0.7	81	65	0 [10]	G	VP	MS	I	MR	S	MS	
CDC Hughes VB Δ	0.3	87	66	0 [3]	G	G	MR	MR	I	I	I	
CDC Landmark VB Δ	-0.3	88	66	0 [3]	VG	VG	MR	MS	MR	MR	I	
CDC VR Morris ☼	0.0	86	65	0 [7]	G	P	I	I	XX	I	MR	
CDC Stanley ☼	-0.3	86	64	-1 [9]	G	G	MR	S	I	I	MS	
CDC Thrive ☼	-1.2	90	65	0 [9]	G	P	MR	I	I	I	MS	
CDC Titanium	-1.4	91	66	1 [7]	G	P	MS	I	R	MS	MR	
CDC Whitewood	-0.4	82	65	-1 [7]	G	G	S	S	I	MS	I	
HW388 *	-3.2	88	68	1 [1]	XX	XX	XX	XX	XX	XX	XX	
Parata ☼ *	-3.2	93	68	1 [1]	XX	XX	XX	XX	XX	XX	XX	
Shaw VB ☼	0.0	92	66	0 [9]	G	G	S	MR	I	MS	MS	
Stettler ☼	0.7	85	66	0 [8]	G	G	R	I	I	S	MS	
Superb ☼	0.6	85	66	-1 [9]	G	F	I	MR	S	S	MS	
SY Obsidian *	-2.0	92	66	0 [1]	XX	XX	XX	XX	XX	XX	XX	
SY Slate Δ	-0.8	87	65	1 [5]	F	P	MS	S	MR	MS	I	
SY Sovite ☼ <sup>91</sup>	0.8	100	65	1 [3]	F	F	R	MS	R	MR	MR	
Thorsby ☼ <sup>91</sup>	0.8	94	65	0 [7]	G	F	I	S	R	MS	I	
SY Chert *	-1.3	92	66	0 [1]	XX	XX	XX	XX	XX	XX	XX	

Average protein for AC Barrie is 14 %

Overall average maturity for AC Barrie is 101 days

Δ PBR pending

¥ semi-dwarf variety

☼ protected by Plant Breeders Rights

☼ Clearfield® Tolerant varieties

☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

☼ Solid-Stemmed variety, Wheat Stem Sawfly resistance

\* first year tested, very limited data

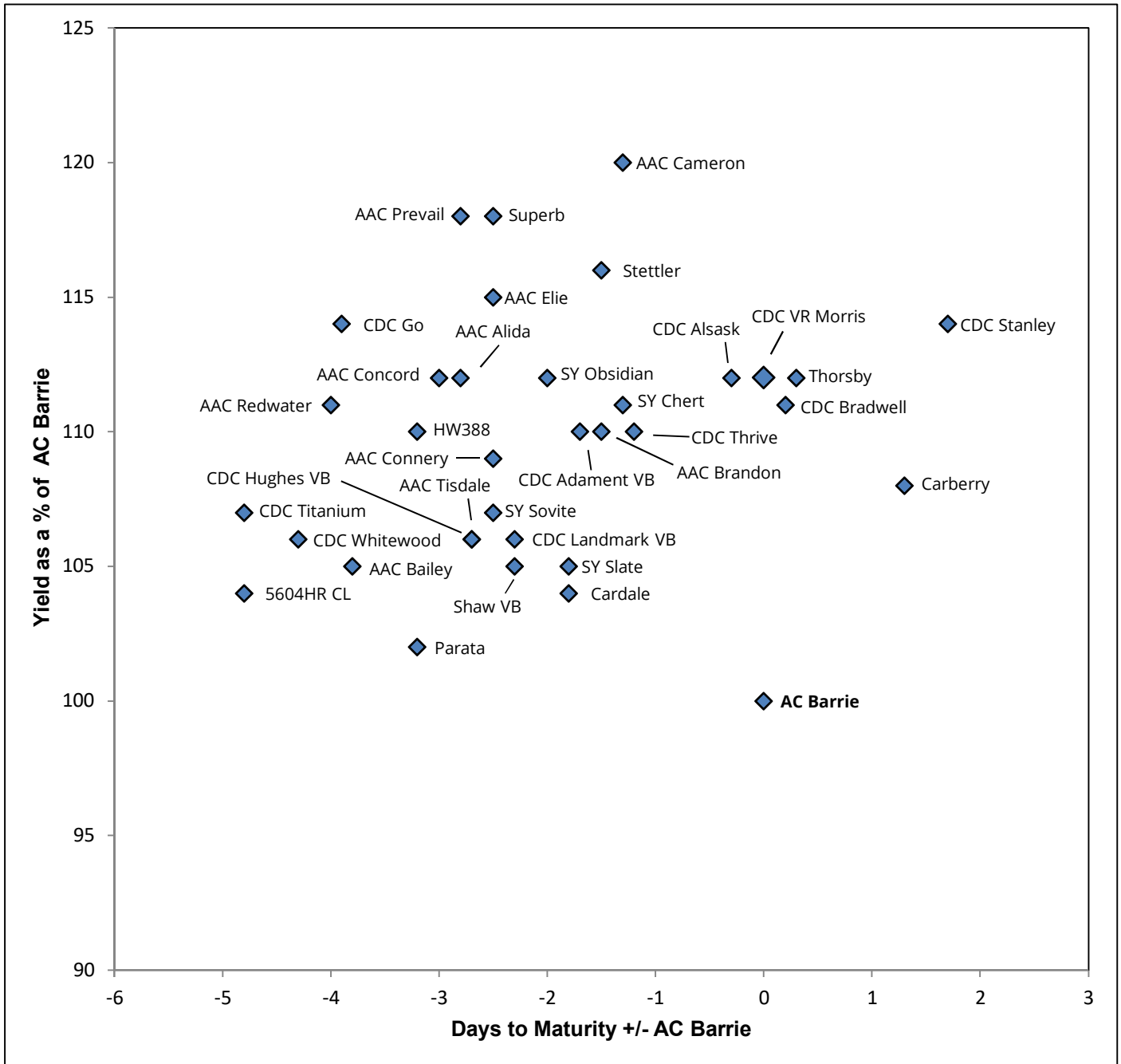
§ Awnless

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

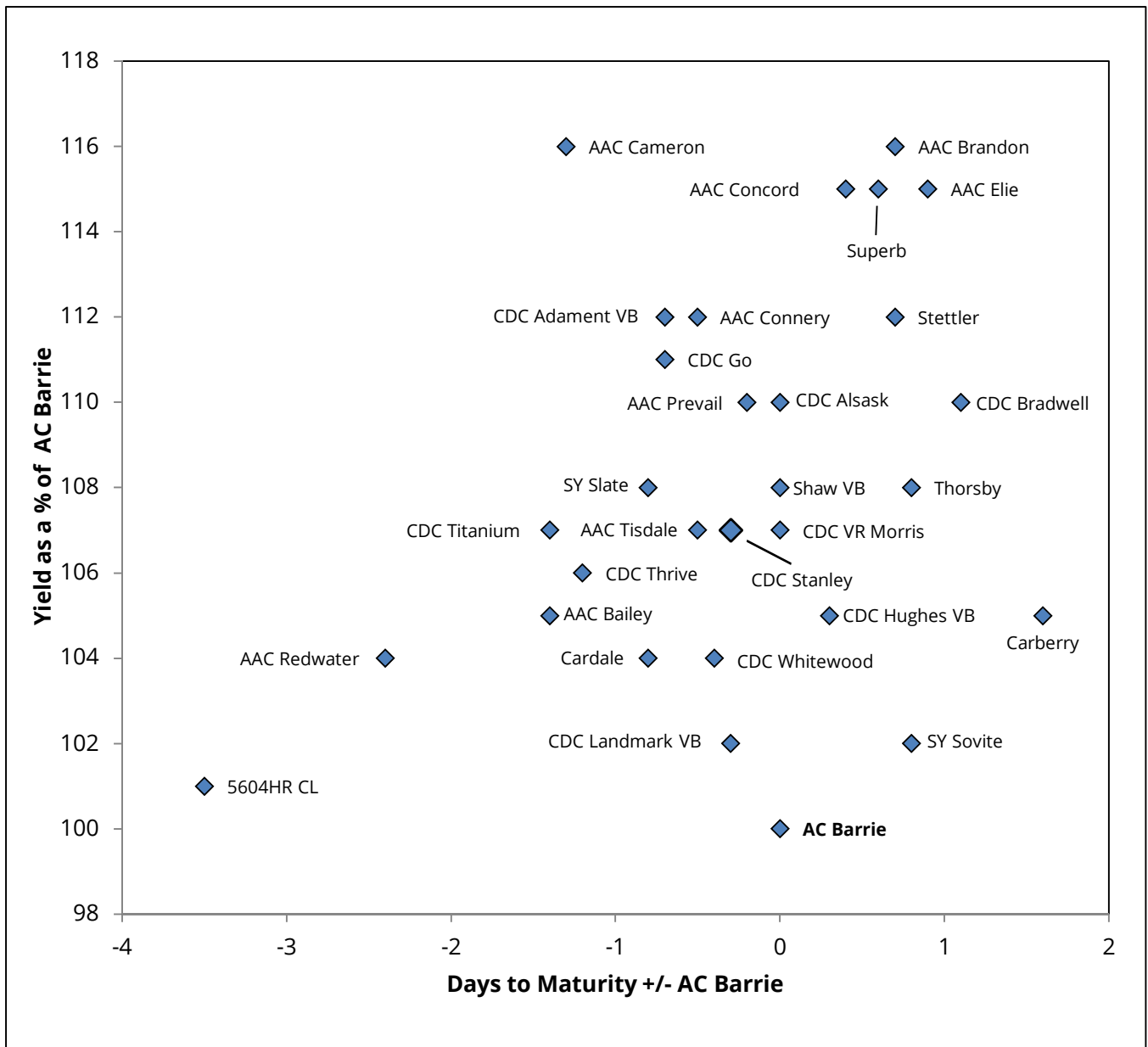
**XX** = insufficient data

**R** = Resistant, **MR** = Moderately resistant, **I** = Intermediate resistance, **MS** = Moderately Susceptible, **S** = Susceptible





Average maturity for AC Barrie is 100 days for 2017



Overall average maturity for AC Barrie is 101 days

# DURUM WHEAT

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

Starting back in 2009, durum was successfully tested in our region and did well and continues to have good success growing in our B.C. Peace River region tests. Often surprises arise in our northern long-daylight region and so it was worth investigating. Most varieties of durum wheat currently available are suggested by literature to have approximately 10 days later maturity than CWRS wheat, but this is not proving to be the case locally. However, 2011 and again in 2015 (very wet & late years) durum proved to be significantly longer in maturity than CWRS as a group, with one or two early variety exceptions worth noting. But, until further testing is completed, durum should not be grown in large acreages and use caution if you choose to grow it within the B.C. Peace River region. The biggest obstacle currently is a lack of grain buyers, admittedly a vicious circle of acceptance and product availability. Its potential economic benefits to the region should grain buyers ever show interest to purchase from the region, is great enough to warrant further testing. *Disclosure of this data is not a recommendation to grow durum in the Peace River region.*

It appears however, that the B.C. Peace River region has one really big advantage in growing durum, as it would seem we can grow it free of fusarium, a major problem in most durum growing regions. Back in 2009 and 2010, years of severe drought and poor yield potentials, durum yields were respectable by comparison and even seemed to survive the drought better than other wheat classes. It appears certain very specific early durum varieties can do quite well in our region, and have produced high quality grain traits to match according to samples sent into the Canadian Grain Commission.

Durum Wheat		Yield as % of Strongfield								
		South Peace			North Peace			BC Peace		
Grain Type		2017 Yield		2012-2017	2017 Yield		2012-2017	2017	2012-2017	
		bu / acre	% of check	Avg. Stn. Yrs.	bu / acre	Avg. (%)	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)
AAC Congress	CWAD			100 [1]	110	111	116 [3]	111	112	[4]
Brigade ☼	CWAD			117 [2]	102	103	103 [3]	103	109	[5]
CDC Alloy	CWAD				93	96	94 [2]	96	94	[2]
CDC Credence ☼ <sup>91</sup>	CWAD				105	105	105 [1]	105	105	[1]
CDC Dynamic	CWAD				94	95	95 [2]	95	95	[2]
AAC Succeed VB Δ*	CWAD				100	101	101 [1]	101	101	[1]
<b>Strongfield</b> ☼	CWAD			100 [5]	99	100	100 [7]	100	100	[12]
Transcend ☼	CWAD			117 [1]	97	98	99 [2]	98	105	[3]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 2.84%, 10.58%

- Δ PBR pending
- ☼ protected by Plant Breeders Rights
- ☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91
- \* first year tested, very limited data
- ¥ semi-dwarf variety
- ⊠ Solid-Stemmed variety, Wheat Stem Sawfly resistance
- XX = insufficient data

# Durum Wheat

# Variety Descriptions

Variety	Type	BC Peace Averages				Alberta Agdex 100/32							
		2012-2017				Resistance to:							
		Maturity in days	Height	Bushel Weight	Kernel Protein %	Lodging	Sprouting	Loose Smut	Common Bunt	Stripe Rust	Leaf Spot	FHB	
		+/- check	cm	lbs/bu	+/- check								
AAC Congress *	CWAD	1.1	90	63	-1 [4]	F	P	MR	I	MR	MS	MS	
Brigade ☼	CWAD	3.8	98	65	-1 [5]	G	F	MS	R	MR	I	MS	
CDC Alloy	CWAD	1.8	98	65	0 [2]	F	F	I	R	R	MS	MS	
CDC Credence ☼ <sup>91</sup>	CWAD		103	65	-1 [1]	F	XX	XX	XX	MR	XX	MS	
CDC Dynamic	CWAD	0.3	96	65	0 [2]	F	F	I	R	MR	I	MS	
AAC Succeed VB Δ*	CWAD		92	66	0 [1]	XX	XX	XX	XX	XX	XX	XX	
<b>Strongfield</b> ☼	CWAD	0.0	84	64	0 [12]	F	F	S	I	MR	MS	S	
Transcend ☼	CWAD	3.6	87	65	0 [3]	F	F	S	R	R	I	MS	

Overall average maturity for Strongfield is 107 days

Overall average protein for Strongfield is 14.9 %

Δ PBR pending

¥ semi-dwarf variety

☼ protected by Plant Breeders Rights

\* first year tested, very limited data

☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

☼ Solid-Stemmed variety, Wheat Stem Sawfly resistance

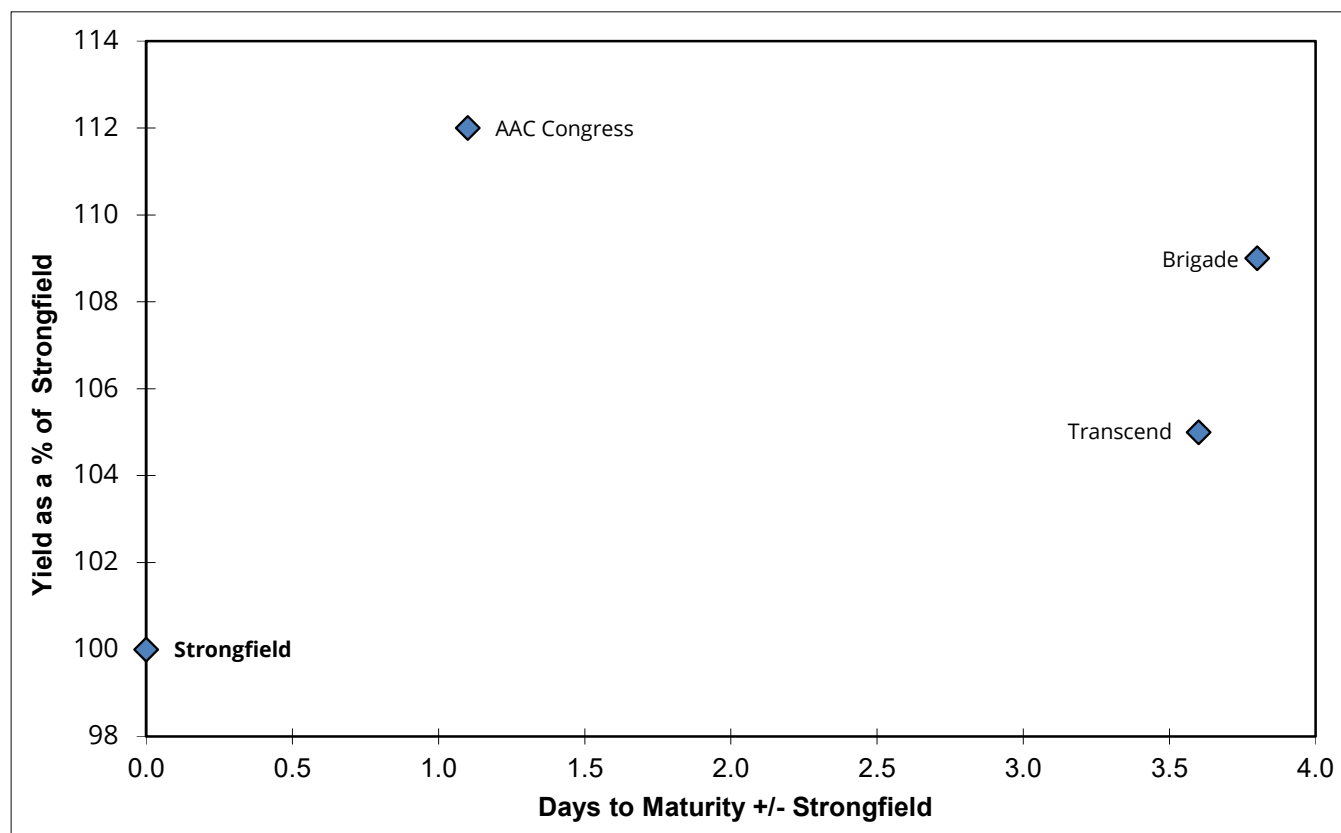
**VG** = very good, **G** = good, **F** = fair, **P** = poor, **VP** = very poor **XX** = insufficient data

**R** = Resistant, **MR** = moderately resistant, **I** = Intermediate resistance, **MS** = Moderately Susceptible, **S** = Susceptible

# Durum Wheat

# Regional Variety Performance

# 2012-2017



Overall average maturity for Strongfield is 107 days

# CANADA WESTERN RED WINTER WHEAT (CWRW) AND WINTER CWGP

The BC Grain Producers started testing winter wheat at Fort St. John in the fall 2012, first harvest 2013. Winter wheat is supposed to offer higher yields than that of its spring CWRS counterparts and although this has not been witnessed thus far, it does offer one to break up the spring seeding period by getting some planting in the ground the previous fall. Fall planting should be no later than Sep 5<sup>th</sup> in the BC Peace River region, and after September 10<sup>th</sup> the risk of winter kill increases dramatically. Following a very early pulse crop allows timely fall planting. Applying all your fertilizer at planting in the fall does not seem to cause problems with preventing hardening off before winter due to slow nutrient release in our cool clay soils. At least 3 leaves before winter should be present and preferably some early tillering. The CWRW class is becoming highly valued by end-users if protein is high. Fusarium headblight (FHB) is a weakness of CWRW but as the Peace River region has not seen much FHB to date, CWRW may offer local producers an advantage. CWRW survive winter in the Peace River region as either a complete success or a total loss and seldom in between, so CWRW should still be considered a risky crop.

CWRW & Winter CWGP Wheat		Yield as % of Radiant										
Variety	Type	South Peace				North Peace				BC Peace		
		2017 Yield		2012-2017		2017 Yield		2012-2017		2017	2012-2017	
		bu / acre	% of check	Avg. (%)	Stn. Yrs.	bu / acre	% of check	Avg. (%)	Stn. Yrs.	Avg. (%)	Avg. (%)	Stn. Yrs.
Accipiter ☼ ¥	CWGP					65	108	100	[5]	108	100	[5]
Broadview ☼	CWGP					55	89	87	[5]	89	87	[5]
CDC Buteo ¥	CWRW					53	88	94	[5]	88	94	[5]
CDC Chase	CWRW					62	102	94	[4]	102	94	[4]
CDC Falcon ¥	CWGP					57	94	94	[5]	94	94	[5]
Emerson ☼	CWRW					55	89	88	[5]	89	88	[5]
Flourish ☼	CWRW					58	94	84	[5]	94	84	[5]
Moats ☼	CWRW					66	107	101	[5]	107	101	[5]
Peregrine ☼	CWGP					64	106	102	[5]	106	102	[5]
<b>Radiant</b> ☼	CWRW					61	100	100	[5]	100	100	[5]

Coefficient of Variance (CV) values for 2017 were as follows: NP = 10.58%

Δ PBR pending

☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

§ Awnless

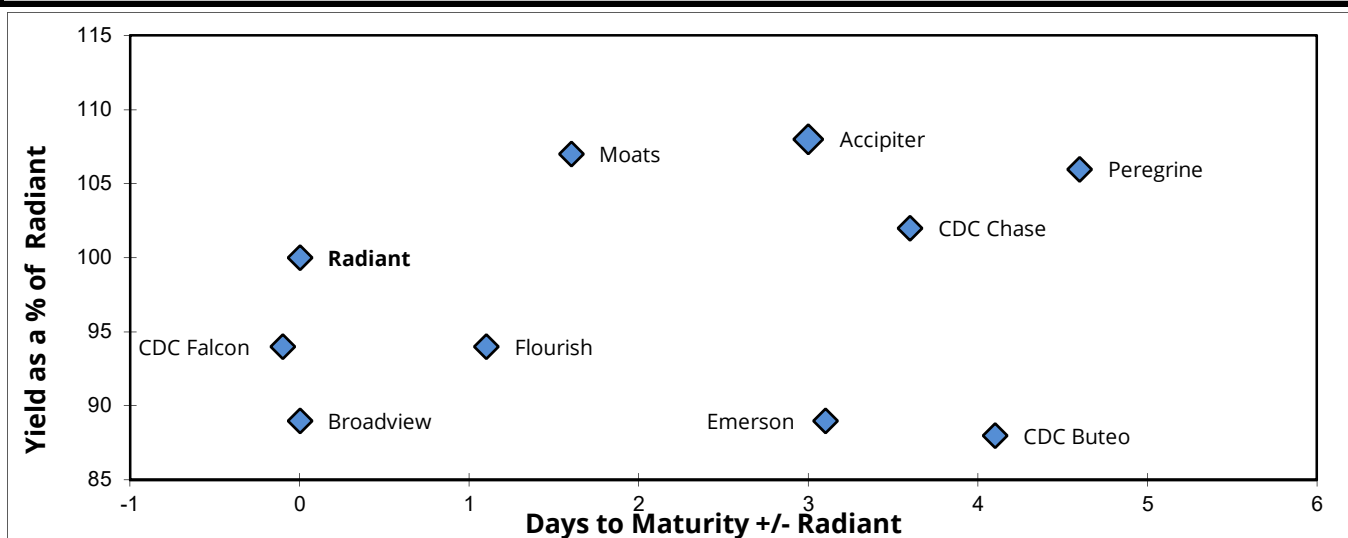
¥ semi-dwarf variety

☼ protected by Plant Breeders Rights

Ⓜ Clearfield® Tolerant varieties

\* first year tested, very limited data

## CWRW & Winter CWGP Wheat Regional Variety Performance 2017



Average maturity for Radiant is 120 days for 2017

Maturity period is from first day of continuous growth in the spring of harvest year.

CWRW & Winter CWGP Wheat							Variety Descriptions					
BC Peace Averages 2012-2017							Alberta Agdex 100/32					
Variety	Type	Maturity	Height	Bushel	Kernel		Resistance to:					
		in days	cm	Weight	Protein %		Lodging	Bunt	Stripe Rust	Leaf Rust	Stem Rust	FHB
		+/- check		lbs/bu	+/- check							
Accipiter ☼ ¥	CWGP	3.3	79	66	0	4	VG	S	S	I	R	MS
Broadview ☼	CWGP	-1.1	75	65	0	4	G	S	S	R	R	S
CDC Buteo ¥	CWRW	2.4	87	67	1	4	F	S	S	I	I	MR
CDC Chase	CWRW	4.7	87	67	0	3	F	S	MR	R	R	MS
CDC Falcon ¥	CWGP	-0.8	73	66	0	4	VG	S	S	MR	MR	S
Emerson ☼	CWRW	4.3	84	65	1	4	G	S	MR	I	R	R
Flourish ☼	CWRW	0.1	77	65	1	4	VG	MR	I	I	I	S
Moats ☼	CWRW	3.4	88	66	1	4	F	MS	MR	R	R	S
Peregrine ☼	CWGP	3.3	93	66	-1	4	F	S	MR	R	I	I
<b>Radiant</b> ☼	CWRW	0.0	79	66	0	4	VG	S	S	S	S	S

Overall average maturity for Radiant is 120 days

Overall average protein for Radiant is 12.5 %

\* first year tested, very limited data av: ☼ protected by Plant Breeders Rights      ¥ semi-dwarf variety

Δ PBR pending      ☼<sup>91</sup> protected by Plant Breeders Rights, UPOV91

### CWRW & Winter CWGP Wheat Regional Variety Performance 2012-2017

