B.C. GRAIN PRODUCERS ASSOCIATION

# 2010 FIELD CROP VARIETY PERFORMANCE


*Funding provided by …*

Canada

Investment Agriculture Foundation of British Columbia

B.C. PEACE RIVER GRAIN INDUSTRY DEVELOPMENT COUNCIL

**BC Grain Producers Association**

# 2010 Field Crop Variety Performance

## BC Peace River Region

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Front cover photo

Flax in full bloom – one of many new crops being tested extensively by the BC Grain Producers Association
Front cover photo credit: Clair Langlois


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# BC Grain Producers Association
# 2010 Field Crop Variety Performance
## BC Peace River Region

## Introduction, Acknowledgements, and Cautionary Notes

This report summarizes the *Field Crop Variety Performance Trials* that were conducted by the *Research Committee* of the *BC Grain Producers Association*, and is the result of funding and partnering with the following organizations:


**Investment Agriculture Foundation of British Columbia – IAF**
**BC Peace River Grain Industry Development Council - BCPRGIDC**

**VITERRA** (Dawson Creek office) should be recognized for their contribution via kernel protein analysis. **Hadland Seed Farm Ltd.** for bulk seed contributions, as well as several other anonymous local producers for their own small seed lot contributions, should also be recognized for their help with these trials and thus the results you see here. We thank these individuals/organizations for their "in-kind" support towards making our field-testing and the production of this book possible. Special thanks also extended to the site cooperators who continue to generously give their support of the program, ***Vic Blanchette*** for the Fort St. John site, and ***School District 59*** for the use of the ***Hudson School Farm*** near Dawson Creek, BC**.** A further word of thanks goes out to ***Dennis Meier*** of Dawson Creek who continuously and generously offers us space on his adjacent farm for all our field equipment.

We should also thank our field and lab team whom once again helped to make this year yet another successful year. They are full-time technicians ***Satoru Nosho***, ***Brandi Smith***, and ***Michelle Whelpton*** whom all worked very hard and well together. Many thanks yet once again to ***Colleen Anderson*** for her help this time, in the review of this report.


This document reports all tested materials grown during the 2010 growing season from performance trials placed at both the Dawson Creek and Fort St. John research farms, and as such the **data compiled in this report is derived from "head-to-head" comparisons only**. Materials not included in 2010, but which were previously tested, may now be viewed via earlier publications and are available for viewing or downloading @ ***www.bcgrain.com***.

Multiple-year testing for any one variety is our goal, but often new materials have only been tested for one year, the current year usually. This can sometimes result in an unfair representation of the new single-year materials against statistically stronger multiple-year materials even though this report cautions readers about this possible effect. To try to resolve this issue starting in 2007 we now displayed the results in two graphs for each crop 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. Where one-year results are shown, be it in current-year graphs or in charts, readers still **must interpret and use such one-year data with considerable caution**, as a variety may change position regarding both yield and maturity as additional results are obtained. This is simply the effect of compiling data from variable weather patterns over time. The more station years, (defined as one test site at one location in one year), that can be used to produce an average, the more stable and reliable the result will be, hence the association's steadfast efforts to procure such data. By providing readers now with a separate "current year graph" for each crop-type, many of the risks with looking at one-year data is still there but the chances of misrepresenting a new entry against its older neighbors is greatly reduced.

This book is produced without bias and is reported to the best of our ability from our own site data collection (except where noted as in the additional canola data). It should only be used as a guide, and where labels are available with your product, be it seed or other product, always follow label directions.

## For More Information Contact:


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

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

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

# BC Grain Producers Association
# - Reference & Terminology -

**Station Years**
The number of station years that the variety has been tested can be seen in the yield tables inside the square brackets [ ]. A station year is one test site at one location in one year. For example, a canola trial conducted at two locations over three years would have six station years, or [6]. We advise using caution if the data is based on *less than three station years in total*, or less than two years at both locations. This of course is a concern for canola where often a line does not even stay in the seed market for more than two years.

**Interpreting Yield Results**
Crops in this book are managed using the same level of inputs as field sized recommendations would suggest. Small-plot research plots offer better consistency and can be better controlled, whereas wet areas and variable soil fertility affect field-scale crop production. However, small plots are subject to *edge effect*. "Edge effect" is caused by the spaces around the individual plots allowing extra sunlight to penetrate, boosting yields on these exposed outer plants, as compared to the average plant in a field scale situation that would be shadowed by its neighbors. **The important concept here is that these effects are *equal* for *all* small plots in a given trial, and we can therefore compare varieties in each trial and look at resulting yields *relative to one another*.** Yields here are thus the result of *small plot production* and the same *level* of production is unlikely to be achieved on a large-scale basis. Unfortunately statistics, which are vital, cannot be used on "*percent of check variety*" data. Thus, we elected to show *bushels per acre* for this current year for the sole purpose of displaying statistical results for the current year. Treat *all* yields, (*percent of check* and *bushels per acre*), as relative results. Agronomic information for the check variety has been bolded in all the tables to identify it.

**Plant Breeders Rights**
The Plant Breeders' Rights (PBR) gives plant breeders "copyright" protection of a variety for up to 18 years. Once a variety has been granted PBR, the breeder has control over the multiplication and sale of the seed. The breeder can take legal action for damages if someone infringes on their rights. Farmers may save some seed for seeding the next year on their own farm, but the sale of the crop as seed for planting purposes to others is not allowed. Many new transgenic herbicide-tolerant varieties have additional restrictions through '*technical use agreements*', so be aware of these too, as they often replace PBR status and can have strong consequences if ignored. Varieties protected by PBR can be identified by their PBR logo on a seed bag, seed tag, or advertising material. This book tries to identify such PBR lines within "*Variety Description*" tables with a solid square box. Ultimately however, it is the responsibility of the grower to know which line is PBR.

**Certified Seed**
The cost of *certified seed* is a small additional expense in relation to total crop production input costs, especially when changing to a different variety. Certified seed assures genetic purity, high germination rates and low percentage of foreign seed when compared to common seed. Certified seed can be purchased in bulk through authorized seed dealer networks, (see "Seed Distributors" at the back of this report).

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

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

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

**Seed Inoculation**
Peas can make much of their nitrogen (N) requirement from the air through a partnership with soil bacteria called *Rhizobium*. The pea seed must be inoculated immediately before or during seeding with a proper strain of bacteria specific to peas. *Rhizobia* are living organisms so check the expiry date on the package and follow inoculant label directions carefully. Generally it is a good idea prior to its use and even during use if possible, to try and reduce the inoculant's exposure to sunlight, open-air, and warmth. Granular formulations placed with the seed have traditionally offered good results in Peace soils, but new inoculants are constantly entering the market place which may offer excellent inoculation as well. Survival of residual rhizobia organisms in our cool Peace soils is not consistently reliable; making use of inoculant with seed is a good form of insurance. High soil nitrogen levels (over 60 kg N/ha) will reduce nodulation in the field regardless of inoculation. Cool, dry, or excessively wet soils, provide a harsh environment for proper inoculation and under these conditions, a low level of nodulation formation will be seen. Granular inoculant placed with the seed at plant was used on all pea-trials seen here in this report.

**Seeding Rates**

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

For example, tests conducted by the Beaverlodge Research Station several years ago throughout the Peace region showed that by increasing the seeding rate of wheat from 80 to 120 lbs/ac (90 to 134 kg/ha), that the time to maturity was reduced by two days. Our own BCGPA trials involving seeding rates in barley did not show similar results upon conclusion. Initially our results did show that when increasing seeding rates to 2.25 to 2.5 bushels per acre for barley, it decreased maturity from 2 to even 4 days, which is significant by harvest. However, over the full 5 years of the project, results became less significant. Wheat was not tested.

## Suggested Rates of Seeding

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

Due to large differences in seed sizes, seeding rates can vary considerably. Therefore, one should base the seeding rate on a *target number* of *viable seeds per square foot*. Using the 1000 kernel weights, adjusting for percent germination, and allowing for seed decay (3%), calculate the number of pounds of seed required per acre.

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

**Example (using peas):**

Target **8** pea plants per square foot, the variety has a 1000 K wt. of **250** grams, and you estimate that between seed decay and percent germination of the seed lot that you will have, **90**% of the seeds will grow into healthy plants. Thus…

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

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

## BC Grain Producers Association - 2010 Growing Conditions -

Our farming season started on the cool side, but more or less right on time. Seeding got off to a good start but went into cold soils. A period of heavy rain and wet snow (wet snow in the south) interrupted the completion of planting but turned out to be the only major moisture event until well into late August. Some soil crusting resulted adding more variability to recently planted fields, but any crop that was up or coming up before or during the event took advantage of this moisture. This pattern was almost a repeat of 2009 so far, as significant precipitation became non-existent post-plant, but unlike 2009, in 2010 the rains did not return until well into late August resulting in a very severe drought – severest in the south.

Results from such a cool spring and then dry June/July were reflected in the slow initial plant growth that allowed various pests to hit them hard, but then also resulted in a quick finish for most crops as the severity of the drought took its toll. Yields were not surprisingly very low for most crop-types, but canola seemed hardest hit as its famous "*weight for rain before flowering*" self-preservation technique backfired on it since those rains did not happen until late August. Re-growth became a major headache in most broadleaf crops by harvest, but was severest in canola as the "real" crop of the year started to form right during harvest. Surprisingly green seed was not a major issue in the cereals, at least not at the two research sites. Dawson Creek was hardest hit by the severe record-breaking drought, and so a lot of trials were lost to high variability at that site, but almost none of the trials involved in this report where lost – with the exception of canola data. Canola data was on the borderline for variability in Fort St. John, but as the yield levels were so ridiculously low, it was decided not to show the Fort St. John canola results either in this publication. This was a real shame as our two sites housed the only independent performance tests for canola in Western Canada in 2010. Canola registration data (which we have been a part of but was also lost in 2010 at the Dawson Creek site) has been included to show some data.

## Interpreting Data

The yield for each variety is reported on a regional basis for the Dawson Creek and Fort St.John areas as well as an average for the entire BC Peace. Also, the number of years each variety has been tested is given for each of the two regions. In the following examples, the number of years is indicated in **[ ]** right after the yield. "Station years" are the total number of times a variety has been tested in these trials.

**Two Row Barley** — **Yield as % of AC Metcalfe**

| Variety | | Type | Dawson Creek 2010 Yield | Dawson Creek 2003-2010 Avg. | Dawson Creek Stn.Yrs. | Fort St.John 2010 Yield | Fort St.John 2003-2010 Avg. | Fort St.John Stn.Yrs. | B.C. Peace 2010 Yield | B.C. Peace 2003-2010 Avg. | B.C. Peace Stn.Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| XENA | 2-row | feed | 115 | 113 | [3] | 125 | 105 | [5] | 120 | 109 | [8] |

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

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

note: above example is dramatization

**Statistical Values** Entries into the Regional trials are replicated (or repeated) four times (three times minimum) at both locations. Replication is used to derive an overall average per entry per trial, and allow for statistical analysis.

***Coefficient of Variance (CV value)*** , given as a percentage, it tells us how statistically sound or reliable a given data set is. Generally, any value less than or equal to 15% is considered to be acceptable and indicates "sound" data. This means if you were to repeat the trial under similar conditions, you would get similar results, or at least we are 95% confident that we would. We tend to be a little more lenient on this 15% for such things as disease or insect data, as these are normally highly variable due to the nature of the beast, but we do not like to see yield data from a single trial with a high CV value. Anything less than 10% is considered excellent.

***Least Significant Difference test (LSD value)*** , are those little letters behind the *data means* . Basically, if two or more *data means* (or averages) have the same letter behind their number, they are NOT significantly different from one another according to statistics. Therefore, means or averages with the same letter should not be viewed as one being "superior" or "inferior" from the other or others of the same letter. LSD takes variability into account, and compares "apples" to "apples".

Example:

| | Dawson Creek | |
|---|---|---|
| | 2010 | 2003-2010 |
| **Variety** | **Yield** | **Avg. Stn.Yrs.** |
| Super X | 105 ab | 102 [3] |
| Superdooper Y | 107 a | 105 [3] |
| So-So 101 | 100 b | 98 [2] |
| Old Goody | 95 c | 97 [6] |

In this example, some people might think variety "*Superdooper Y*" is superior to variety "*Super X*" and "*So-So 101*". This is not true according, to statistics, "*Superdooper Y*" is superior to variety "*So-So 101*", but is equivalent to "*Super X*" in yield because both "*Superdooper*" and "*Super X*" have the letters "*a*" with them. In this example, "*Super X*" is not superior (or significantly different), from variety "*So-So 101*" either, as both have a "*b*" behind their means. Also, "*Superdooper Y*", "*Super X*", and "*So-So 101*" are superior to, (or a better term is significantly different from), "*Old Goody*". Note, in this report, we only have LSD values for this current year's data, and thus you should still take notice of the long term averages. Note that preferably data should have six station years, (usually meaning 3 years at each site), but that for **any varieties with less than three station years of data, you must compare data with caution.**

# Fertilizer Rates Used In 2010

**Fort St. John, B.C.** **Legal Description: SW19 Tp84 R18 W6**

| Crop | Fertilizer Applied | kg/ha | Placement | lbs actual/ac Recom. vs. Applied | Enviro-Test Labs N | $P_2 0_5$ | $K_2O$ | S |
|---|---|---|---|---|---|---|---|---|
| **Canola** | 27-0-0-12 | 298 | banded | Recommended* = | 80 | 30 | 15 | 25 |
| | 6-26-30 | 55 | banded | Actually applied = | 77.9 | 26.7 | 14.7 | 31.9 |
| | 12-52-0 | 30 | in-furrow | | | | | |
| **Flax** | 27-0-0-12 | 230 | top dressing | Recommended* = | 45 | 30 | 15 | 10 |
| | 6-26-30 | 50 | banded | Actually applied = | 67.0 | 25.5 | 13.4 | 25.7 |
| | 12-52-0 | 30 | in-furrow | | | | | |
| **Cereals** | 34.5-0-0-0 | 95 | banded | Recommended* = | 0 | 25 | 15 | 10 |
| | 6-26-30 | 50 | banded | Actually applied = | 34.7 | 25.5 | 13.4 | 0 |
| | 12-52-0 | 30 | in-furrow | | | | | |
| **Peas** | 20-0-0-24 | 55 | banded | Recommended* = | 22 | 25 | 15 | 10 |
| | 6-26-30 | 50 | banded | Actually applied = | 15.7 | 25.5 | 13.4 | 12 |
| | 12-52-0 | 30 | in-furrow | | | | | |

**Dawson Creek, B.C.** **Legal Description: SW20 Tp78 R14 W6**

| Crop | Fertilizer Applied | kg/ha | Placement | lbs actual/ac Recom. vs. Applied | Enviro-Test Labs N | $P_2 0_5$ | $K_2O$ | S |
|---|---|---|---|---|---|---|---|---|
| **Canola** | 27-0-0-12 | 200 | banded | Recommended* = | 35 | 25 | 20 | 25 |
| | 6-26-30 | 55 | banded | Actually applied = | 54.3 | 26.7 | 14.7 | 21.4 |
| | 12-52-0 | 30 | in-furrow | | | | | |
| **Flax** | 27-0-0-12 | 214 | banded | Recommended* = | 60 | 25 | 20 | 12 |
| | 6-26-30 | 50 | banded | Actually applied = | 57.4 | 25.5 | 13.4 | 22.9 |
| | 12-52-0 | 30 | in-furrow | | | | | |
| **Wheat & Barley** | 34.5-0-0-0 | 160 | banded | Recommended* = | 50 | 22 | 20 | 5 |
| | 6-26-30 | 50 | banded | Actually applied = | 54.4 | 25.5 | 13.4 | 0 |
| | 12-52-0 | 30 | in-furrow | | | | | |
| **Malt Barley & Oats** | 34-0-0-0 | 160 | banded | Recommended* = | 50 | 20 | 20 | 10 |
| | 6-26-30 | 50 | banded | Actually applied = | 54.4 | 25.5 | 13.4 | 0 |
| | 12-52-0 | 30 | in-furrow | | | | | |
| **Peas** | 20-0-0-24 | 55 | banded | Recommended* = | 25 | 20 | 15 | 12 |
| | 6-26-30 | 50 | banded | Actually applied = | 15.7 | 25.5 | 13.4 | 11.8 |
| | 12-52-0 | 30 | in-furrow | | | | | |

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

## Pesticide Applications

**Fort St. John, B.C.** — **Legal Description: SW19 Tp84 R18 W6**

| Crop | Date Applied | Product Used | Product Rate |
|---|---|---|---|
| **Canola** | 15-Jun-10 | Muster (ethametsulfuron methyl) | 12 g/ac |
| | | Lontrel 360 (clopyralid) | 227 ml/ac |
| | | Poast Ultra (sethoxydim) | 200 ml/ac |
| | | Merge | 400 ml/ac |
| **Field Peas** | 7-Jun-10 | Sencor (metribuzin) 75%DF | 77g/ac |
| | | MCPA Sodium | 190ml/ac |
| **Flax** | 15-Jun-10 | Buctril - M | 400 ml/ac |
| **Wheat, Barley, Oat** | 15-Jun-10 | Buctril - M | 400 ml/ac |

**Dawson Creek, B.C.** — **Legal Description: SW20 Tp78 R14 W6**

| Crop | Date Applied | Product Used | Product Rate |
|---|---|---|---|
| **Canola (napus & rapa)** | 11-Jun-10 | Muster (ethametsulfuron methyl) | 12 g/ac |
| | | Lontrel 360 (clopyralid) | 227 ml/ac |
| | | Poast Ultra (sethoxydim) | 200 ml/ac |
| | | Merge | 400 ml/ac |
| **Juncea** | 11-Jun-10 | Odyssey | 17g/ac |
| | | Merge | 0.5% H2O |
| **Field Peas** | 5-Jun-10 | Sencor (metribuzin) 75%DF | 77 g/ac |
| | | MCPA Sodium | 190 ml/ac |
| | 19-Jun-10 | Assure | 150ml/ac |
| | | Sure-Mix | 0.5% H2O |
| **Flax** | 16-Jun-10 | Buctril-M (bromoynil + MCPA) | 400 ml/ac |
| | 19-Jun-10 | Assure | 150ml/ac |
| | | Sure-Mix | 0.5% H2O |
| **Malt Barley** | 10-Jun-10 | Refine Extra (older formulation) | 8 g/ac |
| **Oat** | 15-Jun-10 | Super Sticker | 0.2% H2O |
| | | MCPA Ester 500 | 228ml/ac |
| **Wheat & Barley** | 10-Jun-10 | Refine Extra (older formulation) | 8 g/ac |
| | | Super Sticker | 0.2% H2O |
| | | MCPA Ester 500 | 228ml/ac |

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

## Planting and Harvest Information

| Loc. | Crop | Seeding rate lbs/ac | Seeding rate kg/ha | Date Planted | Soil Temp ($C^o$) @ plant | Seeding Depth | Harvest Date | Harvesting Method |
|---|---|---|---|---|---|---|---|---|
| **FSJ** | **Napus Canola** | 8 | 8.9 | 11-May-10 | 9 | 0.75 - 1 inch | 16-Sep-10 | desiccate/direct |
| | **Flax** | 40 | 45 | 15-May-10 | 8 | 0.5 - 0.75 inch | 7-Oct-10 | desiccate/direct |
| | **Barley** | 77 | 86 | 13-May-10 | 10 | 1 - 1.25 inch | 25-Aug-10 | direct cut |
| | **CWRS Wheat** | 90 | 101 | 13-May-10 | 10 | 1 - 1.25 inch | 25-Aug-10 | direct cut |
| | **CPS/CWES** | 90 | 101 | 13-May-10 | 10 | 1 - 1.25 inch | 11-Sep-10 | direct cut |
| | **Oats** | 81 | 90 | 13-May-10 | 10 | 1 - 1.25 inch | 25-Aug-10 | direct cut |
| | **Triticale** | 117 | 131 | 13-May-10 | 10 | 1 - 1.25 inch | 17-Sep-10 | direct cut |
| | **Peas** | 149 | 167 | 7-May-10 | 4 | 1-1.5 inch | 14-Aug-10 | direct cut |
| **DC** | **Napus Canola** | 8 | 8.9 | 10-May-10 | 9 | 0.75-1 inch | 14-Sep-10 | desiccate/direct |
| | **Flax** | 40 | 45 | 8-May-10 | 5 | 0.5-1 inch | 29-Sep-10 | desiccate/direct |
| | **Barley** | 77 | 86 | 12-May-10 | 6 | 1-1.25 inch | 23-Aug-10 | direct cut |
| | **CWRS Wheat** | 90 | 101 | 12-May-10 | 6 | 0.75 inch | 3-Sep-10 | direct cut |
| | **CPS/CWES** | 90 | 101 | 12-May-10 | 6 | 0.75 inch | 4-Sep-10 | direct cut |
| | **Oats** | 81 | 90 | 14-May-10 | 8 | 1-1.25 inch | 10-Sep-10 | direct cut |
| | **Triticale** | 117 | 131 | 12-May-10 | 6 | 0.75-1 inch | 4-Sep-10 | direct cut |
| | **Peas** | 149 | 167 | 6-May-10 | 5 | 1 inch | 16-Aug-10 | direct cut |

# CANADA WESTERN RED SPRING WHEAT

As grain yields increase, protein content generally decreases. Some of the newer varieties have both higher protein and grain yield. To control true *loose smut* of wheat only a systemic fungicide will work as the pathogen is found inside the seed. To control 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 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of Check | Dawson Creek 2006-2010 Avg. (%) | Dawson Creek 2006-2010 Station Years | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of Check | Fort St. John 2006-2010 Avg. (%) | Fort St. John 2006-2010 Station Years | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Station Years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5603HR | 45 | a | 117 | 103 | [3] | 33 | a | 98 | 102 | [3] | 108 | 101 | [6] |
| 5604HR CL | 38 | a | 99 | 93 | [2] | 32 | a | 94 | 93 | [2] | 97 | 94 | [4] |
| AC Barrie | 35 | a | 92 | 88 | [5] | 35 | a | 103 | 102 | [5] | 97 | 95 | [10] |
| AC Splendor | 37 | a | 97 | 88 | [5] | 30 | a | 90 | 89 | [5] | 93 | 89 | [10] |
| Alvena | 31 | a | 82 | 95 | [4] | 35 | a | 105 | 105 | [4] | 93 | 100 | [8] |
| Carberry | 44 | a | 115 | 112 | [2] | 37 | a | 111 | 117 | [2] | 113 | 112 | [4] |
| CDC Abound | 47 | a | 123 | 109 | [5] | 37 | a | 110 | 108 | [5] | 116 | 110 | [10] |
| CDC Alsask | 35 | a | 91 | 101 | [5] | 33 | a | 97 | 106 | [5] | 94 | 99 | [10] |
| CDC Go | 35 | a | 92 | 100 | [5] | 36 | a | 106 | 107 | [5] | 99 | 103 | [10] |
| CDC Kernen | 40 | a | 103 | 99 | [2] | 36 | a | 107 | 113 | [2] | 105 | 103 | [4] |
| CDC Osler | 38 | a | 99 | 100 | [5] | 34 | a | 99 | 105 | [5] | 99 | 100 | [10] |
| CDC Stanley | 43 | a | 113 | 102 | [2] | 33 | a | 99 | 102 | [2] | 106 | 100 | [4] |
| CDC Thrive | 40 | a | 103 | 94 | [2] | 40 | a | 117 | 114 | [2] | 110 | 106 | [4] |
| CDC Utmost VB | 41 | a | 107 | 100 | [2] | 33 | a | 98 | 109 | [2] | 102 | 99 | [4] |
| Fieldstar VB | 41 | a | 107 | 99 | [3] | 32 | a | 96 | 101 | [3] | 101 | 97 | [6] |
| Glenn | 43 | a | 111 | 101 | [2] | 32 | a | 96 | 103 | [2] | 104 | 99 | [4] |
| Goodeve VB | 41 | a | 107 | 100 | [4] | 35 | a | 103 | 106 | [4] | 105 | 101 | [8] |
| Harvest | 41 | a | 106 | 89 | [5] | 33 | a | 99 | 101 | [5] | 102 | 94 | [10] |
| Infinity | 40 | a | 104 | 101 | [5] | 36 | a | 106 | 108 | [5] | 105 | 104 | [10] |
| **Katepwa** | 38 | a | 100 | 100 | [5] | 34 | a | 100 | 100 | [5] | 100 | 100 | [10] |
| Muchmore | 38 | a | 98 | 103 | [2] | 37 | a | 110 | 114 | [2] | 104 | 107 | [4] |
| Shaw | 38 | a | 100 | 99 | [2] | 39 | a | 115 | 111 | [2] | 108 | 107 | [4] |
| Snowbird ** | 34 | a | 88 | 91 | [5] | 33 | a | 97 | 102 | [5] | 93 | 94 | [10] |
| Snowstar ** | 37 | a | 96 | 92 | [5] | 34 | a | 99 | 105 | [5] | 98 | 96 | [10] |
| Stettler | 51 | a | 133 | 121 | [3] | 38 | a | 113 | 116 | [3] | 123 | 117 | [6] |
| Superb | 44 | a | 115 | 109 | [5] | 39 | a | 115 | 118 | [5] | 115 | 112 | [10] |
| Unity VB | 41 | a | 106 | 105 | [3] | 37 | a | 111 | 110 | [3] | 109 | 108 | [6] |
| *Vesper* * | 40 | a | 105 | 105 | [1] | 33 | a | 97 | 97 | [1] | 101 | 101 | [2] |
| Waskada | 41 | a | 108 | 97 | [4] | 36 | a | 107 | 104 | [4] | 108 | 102 | [8] |
| WR859 CL | 42 | a | 108 | 106 | [3] | 34 | a | 100 | 102 | [3] | 104 | 103 | [6] |
| LSD (P=.05) = | 9.896 | | | | | 5.30 | | | | | | | |
| CV value (%) = | 15.16 | | | | | 10.75 | | | | | | | |

**Katepwa - check variety**

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

* first year tested, very limited data available

** CWHWS Canadian Western Hard White Spring Wheat

Δ denotes materials not registered, very limited data available

**5604HR CL, CDC Abound** and **WR859 CL** are Clearfield® tolerant varieties

**Unity VB** is a Wheat Midge Resistant variety

# CWRS Wheat

## Variety Descriptions

| | Variety | B.C. Peace Averages 2006 - 2010 Days to Maturity +/- check | Height cm | Bushel Weight lbs/bu | Kernel Protein % +/- check | | Alberta Agdex 100/32 Resistance to: Lodging | Loose Smut | Common Bunt | Tolerance to: Stripe Rust | Leaf Spot | Sprouting | FHB | Distributor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ | 5603HR | 0 | 66 | 63 | 1 | [6] | G | G | G | P | F | XX | F | Viterra |
| ■ | 5604HR CL | -10 | 67 | 64 | 0 | [4] | XX | XX | XX | XX | XX | F | P | Viterra |
| ■ | AC Barrie | -3 | 69 | 64 | 1 | [10] | G | G | F | P | P | G | F | SeCan |
| ■ | AC Splendor | -4 | 69 | 62 | 1 | [10] | F | F | F | F | F | F | P | Secan |
| ■ | Alvena | -2 | 71 | 63 | 0 | [8] | G | G | G | G | XX | F | P | SeCan |
| ■ | Carberry | -3 | 65 | 66 | 0 | [4] | VG | G | G | G | P | F | G | SeCan |
| ■ | CDC Abound | -2 | 68 | 65 | 1 | [10] | G | F | F | F | P | G | P | Viterra |
| ■ | CDC Alsask | -3 | 72 | 63 | 0 | [10] | F | G | G | F | P | F | P | Viterra |
| | CDC Go | -4 | 68 | 64 | 1 | [10] | G | P | G | F | P | P | P | Public Variety |
| ■ | CDC Kernen | -1 | 72 | 65 | 0 | [4] | G | VG | F | XX | F | F | F | Canterra Seeds |
| | CDC Osler | -4 | 69 | 63 | 0 | [10] | G | G | G | G | F | F | VP | Public Variety |
| ■ | CDC Stanley | -4 | 67 | 63 | -1 | [4] | G | G | VP | XX | F | VG | P | Viterra |
| ■ | CDC Thrive | -5 | 70 | 64 | 0 | [4] | G | G | VP | XX | F | VG | P | Cargill Ltd. |
| ■ | CDC Utmost VB | -1 | 68 | 65 | 1 | [4] | G | P | VP | XX | F | G | P | FP Genetics |
| ■ | Fieldstar VB | -4 | 65 | 63 | 0 | [6] | F | F | G | F | XX | G | F | SeCan |
| ■ | Glenn | 1 | 67 | 66 | 1 | [4] | VG | F | F | XX | F | F | F | Canterra Seeds |
| ■ | Goodeve VB | -3 | 74 | 63 | 0 | [8] | VG | G | P | G | P | G | VP | Alliance Seed Corp. |
| ■ | Harvest | -4 | 70 | 65 | 0 | [10] | VG | G | F | F | P | VG | VP | FP Genetics |
| ■ | Infinity | -2 | 70 | 63 | 0 | [10] | G | G | F | P | P | G | VP | Canterra Seeds |
| | **Katepwa** | 0 | 74 | 63 | 0 | [10] | F | G | G | P | P | F | F | SeCan |
| ■ | Muchmore | -2 | 61 | 65 | 0 | [4] | VG | G | G | XX | P | F | P | FP Genetics |
| ■ | Shaw | -4 | 70 | 65 | 0 | [4] | G | P | G | XX | P | G | P | SeCan |
| ■ | Snowbird ** | -1 | 72 | 64 | 0 | [10] | G | G | F | F | P | G | P | FP Genetics |
| ■ | Snowstar ** | -4 | 68 | 65 | 0 | [10] | XX | P | P | P | F | F | P | SeCan |
| ■ | Stettler | 0 | 66 | 65 | 1 | [6] | G | G | G | G | P | G | P | SeCan |
| ■ | Superb | -2 | 70 | 65 | 0 | [10] | G | F | G | P | P | G | P | SeCan |
| ■ | Unity VB | -2 | 65 | 64 | 0 | [6] | F | P | VG | P | P | G | P | Viterra |
| ■ | *Vesper* * | -4 | 68 | 65 | 0 | [2] | | | | | | | | SeCan |
| ■ | Waskada | -2 | 74 | 66 | 0 | [8] | G | G | G | G | P | G | G | Secan |
| ■ | WR859 CL | -6 | 60 | 64 | 1 | [6] | G | VG | VG | XX | P | G | G | Syngenta Seeds Canada |

* first year tested, very limited data available

** CWHWS = Canadian Western Hard White Spring Wheat

Δ denotes materials not registered, very limited data available

**5604HR CL**, **CDC Abound** and **WR859 CL** are Clearfield® tolerant varieties

**Unity VB** is a Wheat Midge Resistant variety

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

XX = insufficient data

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

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

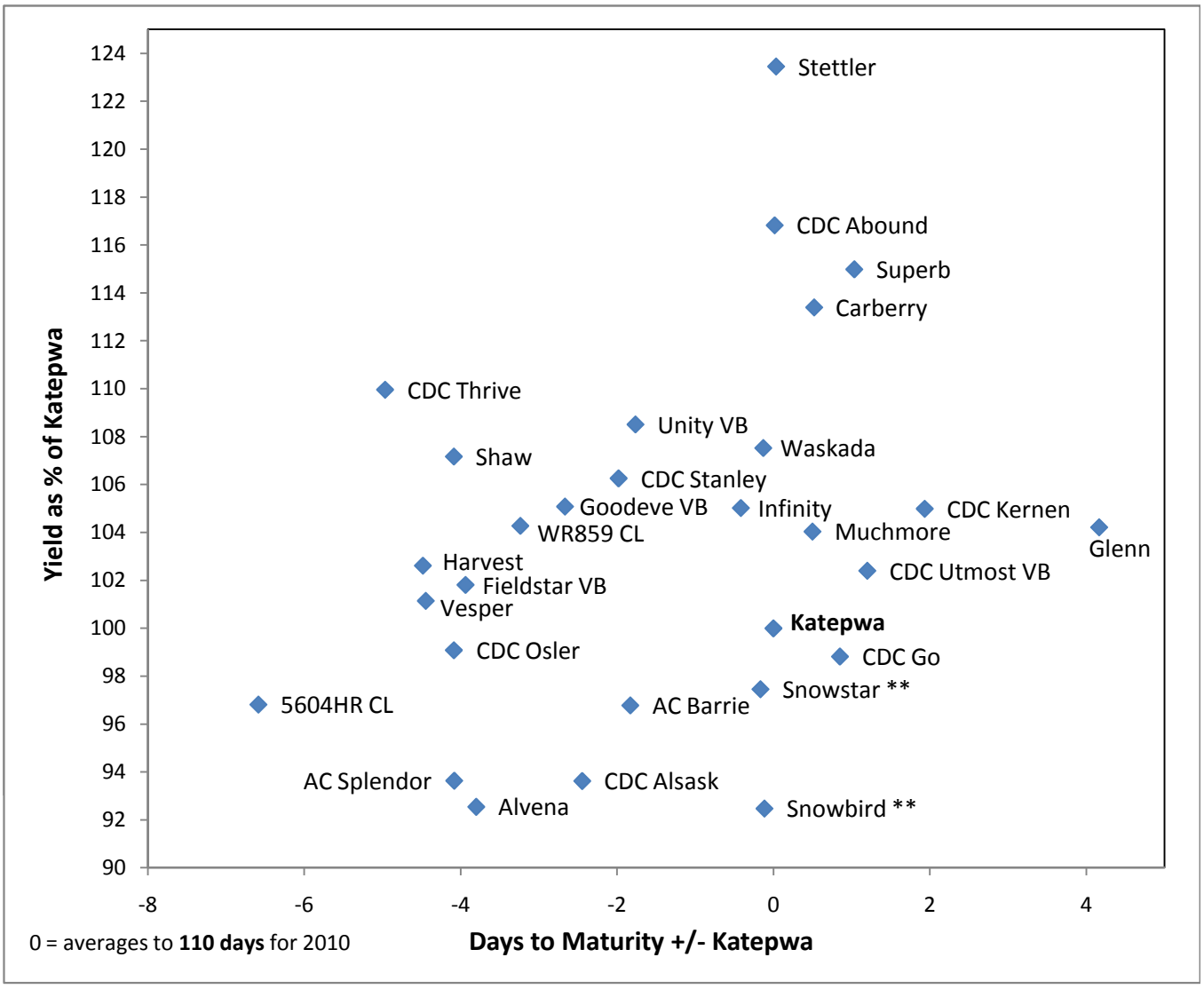
Average maturity for **Katepwa** is **101 days**

**Katepwa - check variety**

Numbers in square brackets [ ] is number of station years collected for protein

■ Protected by Plant Breeders' Rights

## CWRS Wheat — Regional Variety Performance — 2010



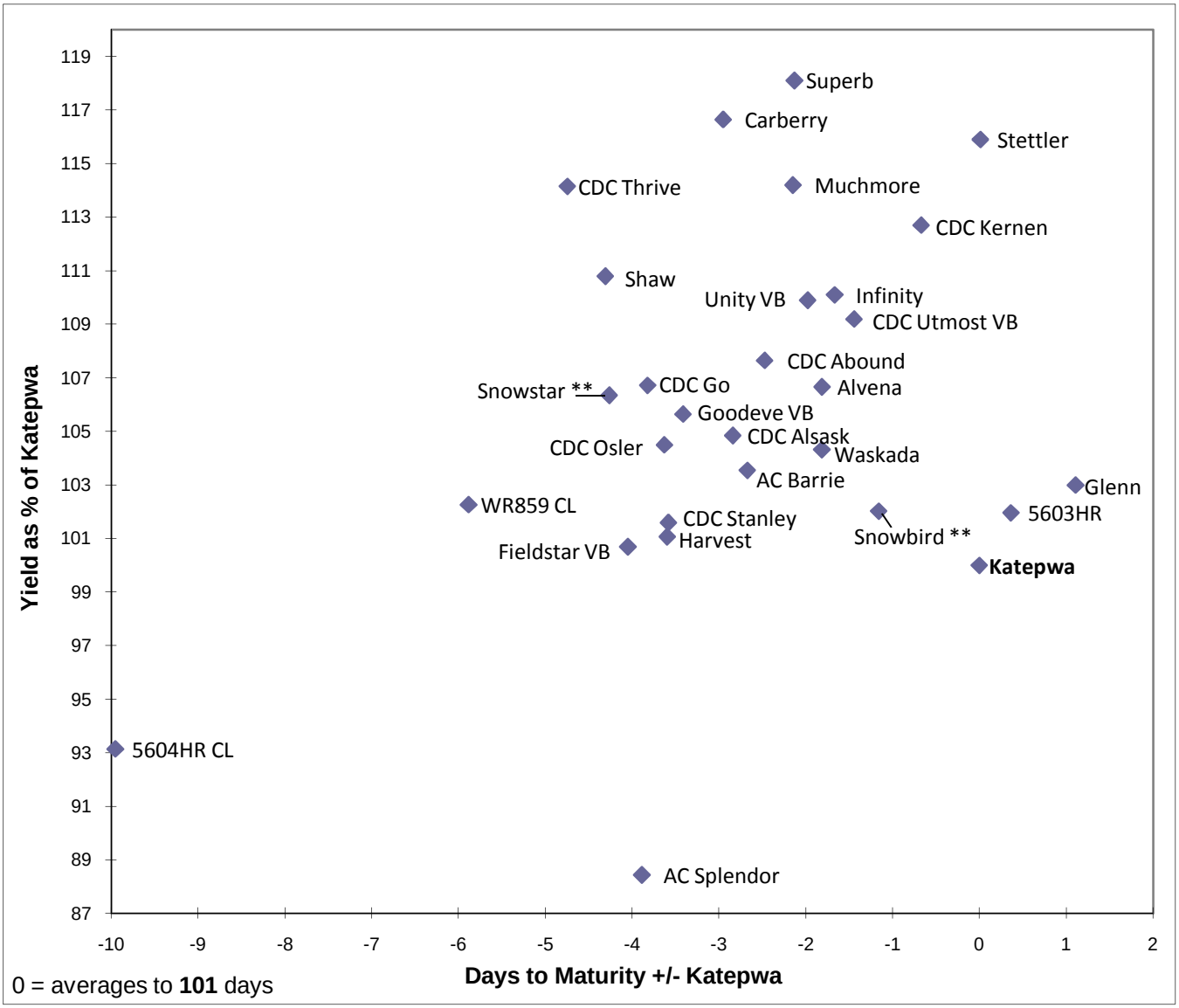

* first year tested, very limited data available

** CWHWS Canadian Western Hard White Spring Wheat

Δ denotes materials not registered, very limited data available

**5604HR CL, CDC Abound** and **WR859 CL** are Clearfield® tolerant varieties

**Unity VB** is a Wheat Midge Resistant variety




** CWHWS Canadian Western Hard White Spring Wheat

# CANADA PRAIRIE SPRING WHEAT

## CANADA WESTERN SOFT WHITE SPRING WHEAT

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

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

### CPS / CWSWS Wheat — Yield as % of 5700PR

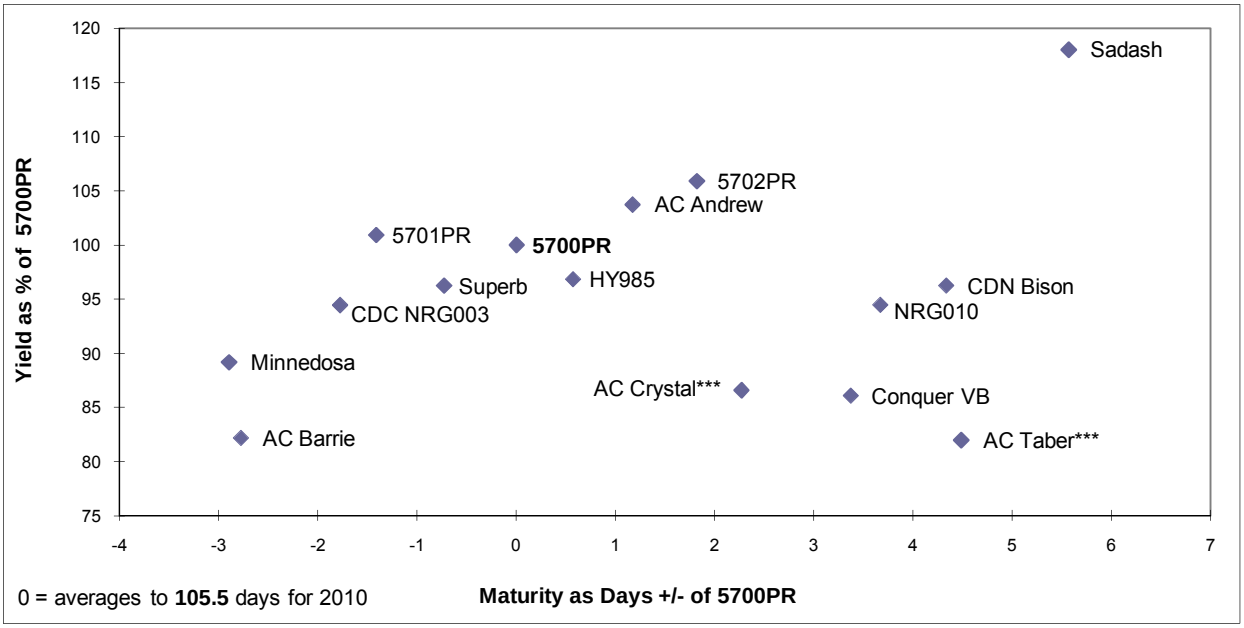
| Variety | Type | Dawson Creek 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of check | Dawson Creek 2006 - 2010 Avg. (%) | Dawson Creek 2006 - 2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of check | Fort St. John 2006 - 2010 Avg. (%) | Fort St. John 2006 - 2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **5700PR** | **CPS-red** | 46 | a | 100 | 100 | [5] | 33 | bcd | 100 | 100 | [5] | 100 | 100 | [10] |
| 5701PR | CPS-red | 44 | a | 96 | 88 | [5] | 35 | bc | 106 | 99 | [5] | 101 | 93 | [10] |
| 5702PR | CPS-red | 45 | a | 99 | 97 | [4] | 38 | b | 113 | 108 | [4] | 106 | 103 | [8] |
| AC Andrew | CWSWS | 43 | a | 95 | 105 | [4] | 37 | b | 112 | 113 | [4] | 104 | 109 | [8] |
| AC Barrie | CWRS | 35 | a | 77 | 74 | [3] | 29 | cde | 87 | 84 | [3] | 82 | 79 | [6] |
| AC Crystal *** | CPS-red | 42 | a | 92 | 70 | [4] | 27 | de | 81 | 87 | [4] | 87 | 79 | [8] |
| AC Taber *** | CPS-red | 39 | a | 86 | 79 | [5] | 26 | e | 78 | 89 | [5] | 82 | 84 | [10] |
| *CDC NRG003* * | CWGP | 42 | a | 92 | 92 | [1] | 32 | bcd | 97 | 97 | [1] | 94 | 94 | [2] |
| *CDN Bison* * | CWES | 41 | a | 90 | 90 | [1] | 34 | bc | 103 | 103 | [1] | 96 | 96 | [2] |
| *Conquer VB* * | CPS-red | 40 | a | 89 | 89 | [1] | 28 | de | 84 | 83 | [1] | 86 | 86 | [2] |
| *HY985* * | CPS-red | 44 | a | 97 | 97 | [1] | 32 | bcd | 97 | 97 | [1] | 97 | 97 | [2] |
| *Minnedosa* * | CWGP | 40 | a | 87 | 87 | [1] | 30 | cde | 91 | 91 | [1] | 89 | 89 | [2] |
| NRG010 | CWGP | 42 | a | 92 | 97 | [2] | 32 | bcd | 97 | 98 | [2] | 94 | 98 | [4] |
| Sadash | CWSWS | 46 | a | 101 | 118 | [3] | 45 | a | 135 | 120 | [3] | 118 | 119 | [6] |
| Superb | CWRS | 40 | a | 88 | 101 | [3] | 35 | bc | 104 | 101 | [3] | 96 | 101 | [6] |
| LSD (P=.05) = | | 7.88 | | | | | 4.02 | | | | | | | |
| CV value (%) = | | 13.12 | | | | | 8.54 | | | | | | | |

* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

*** denotes semi-dwarf stature

### CPS / CWSWS Wheat — Regional Variety Performance 2010




Δ denotes materials not registered, very limited data available

# CPS / CWSWS Wheat — Variety Descriptions

B.C. Peace Averages 2006-2010 | Data from Alberta Agdex 100/32

| | Variety | Type | Maturity in days +/- check | Height cm | Bushel Weight lbs/bu | Kernel Protein % +/- check | | Resistance to: Lodging | Loose Smut | Common Bunt | Stripe Rust | Tolerance to: Leaf Spot | Sprouting | FHB | Distributor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ | **5700PR** | **CPS-red** | 0 | 62 | 64 | 0 | [10] | VG | P | G | P | P | P | VP | Viterra |
| ■ | 5701PR | CPS-red | -1 | 62 | 62 | 0 | [10] | G | F | F | G | P | P | VP | Viterra |
| ■ | 5702PR | CPS-red | 0 | 67 | 63 | 0 | [8] | G | P | F | F | F | F | P | Viterra |
| | AC Andrew | CWSWS | 2 | 66 | 63 | -1 | [8] | VG | VP | P | G | G | F | VP | SeCan |
| ■ | AC Barrie | CWRS | -4 | 70 | 64 | 1 | [6] | G | G | F | P | P | G | F | SeCan |
| ■ | AC Crystal *** | CPS-red | 2 | 60 | 63 | 1 | [8] | G | F | VG | P | F | P | VP | SeCan |
| | AC Taber *** | CPS-red | 4 | 62 | 63 | 1 | [10] | G | P | VG | P | F | P | VP | SeCan |
| ■ | *CDC NRG003* * | CWGP | -2 | 63 | 63 | 0 | [2] | G | G | VG | XX | VP | XX | VP | Canterra Seeds |
| | *CDN Bison* * | CWES | 4 | 67 | 63 | 2 | [2] | G | VG | F | XX | F | F | F | Faurschou Farm Ltd |
| ■ | *Conquer VB* * | CPS-red | 3 | 67 | 63 | 3 | [2] | F | P | VG | XX | F | XX | P | Canterra Seeds |
| | *HY985* * | CPS-red | 1 | 63 | 64 | 1 | [2] | | | | | | | | Syngenta Seeds Canada |
| ■ | *Minnedosa* * | CWGP | -3 | 65 | 63 | 1 | [2] | G | F | G | XX | P | G | P | SeCan |
| ■ | NRG010 | CWGP | 2 | 69 | 63 | 0 | [4] | G | VG | VG | XX | P | XX | VP | Canterra Seeds |
| ■ | Sadash | CWSWS | 4 | 65 | 64 | -1 | [6] | VG | VP | VP | VG | F | F | P | SeCan |
| ■ | Superb | CWRS | -3 | 65 | 65 | 1 | [6] | G | F | G | P | P | G | P | SeCan |

* first year tested, very limited data available

**5700PR - check variety**

■ Protected by Plant Breeders' Rights

Overall average maturity for **5700PR** is **102** days.

Overall average protein for **5700PR** is **12.1%**

Numbers in square brackets [ ] is number of station years collected for protein

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

XX = insufficient data

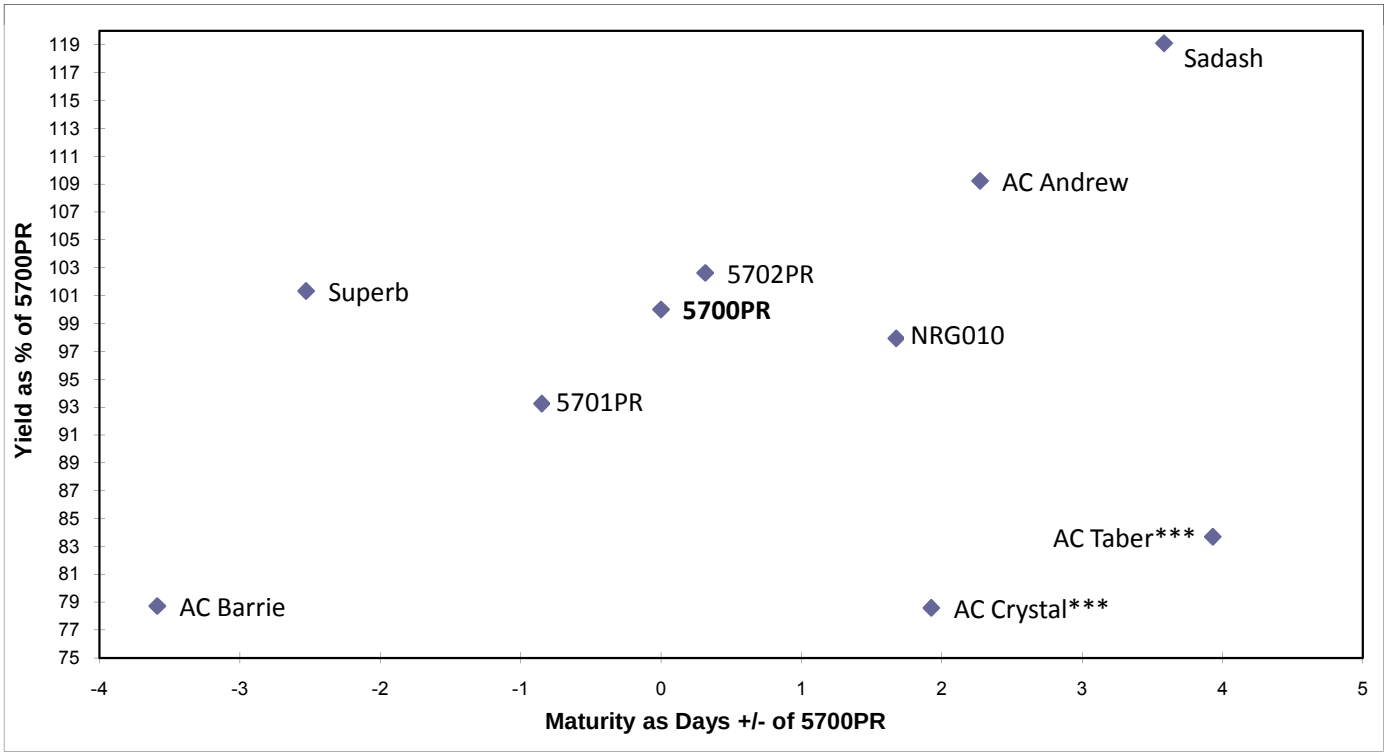
"blanked *Tolerance* data" = no data available yet (too new)

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available

*** denotes semi-dwarf stature

# CPS / CWSWS Wheat — Regional Variety Performance 2006 - 2010




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

# 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 also 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. In the past, durum production has been concentrated in the southern parts of the Canadian prairies.

However, a few producers in northwestern Alberta have had success growing the crop and for this reason it has been tested here in the B.C. Peace. Often surprises arise in our northern long-daylight region and so it was worth investigating durum in a limited fashion. 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. Just the same, durum should not be grown in large acreage within the B.C. Peace River region for grain production until more is understood about its agronomics, and interest is witnessed among the grain buyers to purchase the end product from the Peace River region - admittedly a vicious circle of acceptance and trial and error. Therefore, *caution* should be taken when attempting to grow durum in the B.C. Peace region, and *disclosure of this data is currently 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. For these reasons data so far collected within the B.C. Peace region has been disclosed as it appears that durum could hold some economic promise to our region in years to come. The test years 2009 and 2010 unfortunately were years of severe drought and poor yield potentials, but compared to other wheat yields over the same period of time at the same testing locations, durum was respectable in yield by comparison and even seemed to survive the drought better than other wheat types but more data is needed.

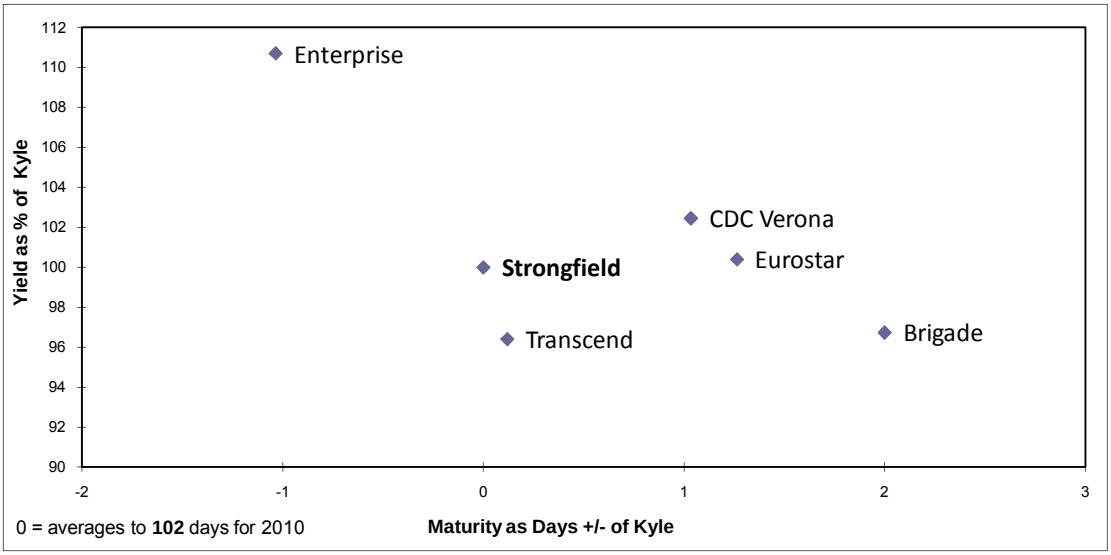
## Durum Wheat — Yield as % of Strongfield

| Variety | Type | Dawson Creek 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of check | Dawson Creek 2009 - 2010 Avg. (%) | Dawson Creek 2009 - 2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of check | Fort St. John 2009 - 2010 Avg. (%) | Fort St. John 2009 - 2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2009-2010 Avg. (%) | B.C. Peace 2009-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brigade | CWD | 33 | ab | 97 | 99 | [2] | 21 | c | 97 | 103 | [2] | 97 | 101 | [4] |
| CDC Verona | CWD | 32 | b | 92 | 96 | [2] | 25 | a | 113 | 113 | [2] | 102 | 104 | [4] |
| Enterprise | CWD | 38 | a | 111 | 105 | [2] | 24 | ab | 110 | 107 | [2] | 111 | 106 | [4] |
| Eurostar | CWD | 35 | ab | 102 | 100 | [2] | 22 | c | 98 | 106 | [2] | 100 | 103 | [4] |
| **Strongfield** | **CWD** | 35 | ab | 100 | 100 | [2] | 22 | c | 100 | 100 | [2] | 100 | 100 | [4] |
| *Transcend* * | CWD | 31 | b | 89 | 89 | [1] | 23 | bc | 104 | 104 | [1] | 96 | 96 | [2] |
| LSD (P=.05) = | | 3.73 | | | | | 1.56 | | | | | | | |
| CV value (%) = | | 7.26 | | | | | 4.56 | | | | | | | |

* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

## Durum Wheat — Regional Variety Performance 2010




Δ denotes materials not registered, very limited data available

## Durum Wheat — Variety Descriptions

B.C. Peace Averages 2009-2010 | Data from Alberta Agdex 100/32

| Variety | Type | Maturity in days +/- check | Height cm | Bushel Weight lbs/bu | Kernel Protein % +/- check | | Resistance to: Lodging | Shatter | Loose Smut | Common Bunt | Stripe Rust | Tolerance to: Leaf Spot | Sprouting | FHB | Distributor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ Brigade | CWD | 0 | 64 | 63 | 0 | [4] | G | XX | P | G | G | F | F | P | Viterra |
| ■ CDC Verona | CWD | -1 | 62 | 63 | -1 | [4] | G | XX | P | G | XX | P | F | P | Alliance Seed Corp. |
| ■ Enterprise | CWD | -2 | 61 | 64 | -1 | [4] | F | XX | P | G | XX | G | F | P | Canterra Seeds |
| ■ Eurostar | CWD | 2 | 66 | 64 | 0 | [4] | F | XX | P | VG | G | F | F | P | SeCan |
| ■ Strongfield | CWD | 0 | 60 | 63 | 0 | [4] | F | VG | VP | G | G | P | F | VP | SeCan |
| ■ *Transcend* * | CWD | 0 | 61 | 63 | 1 | [2] | | | | | | | | | FP-Genetics |

* first year tested, very limited data available

**Strongfield - check variety**

■ Protected by Plant Breeders' Rights

Overall average maturity for **Strongfield** is **103** days.

Overall average protein for **Strongfield** is **15.1%**

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

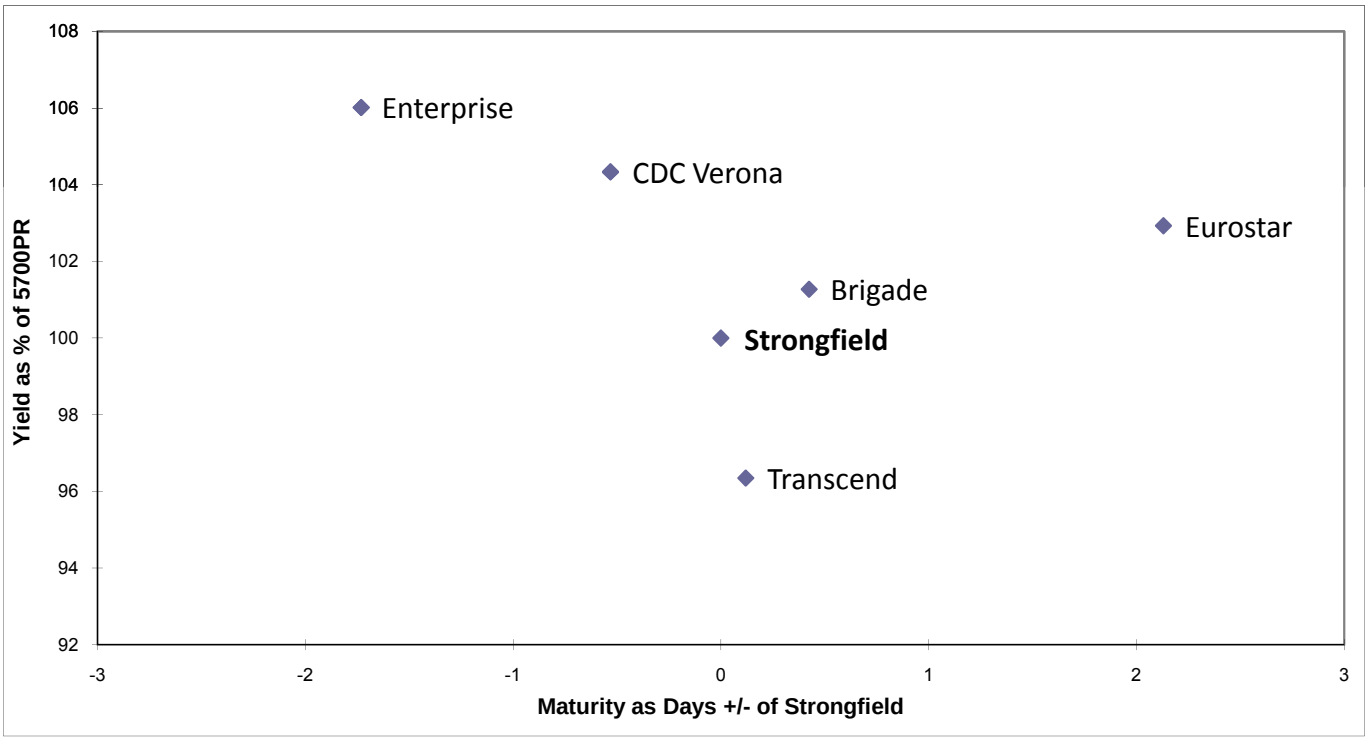
XX = insufficient data

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

Δ denotes materials not registered, very limited data available

Numbers in square brackets [ ] is number of station years collected for protein

## Durum Wheat — Regional Variety Performance — 2009-2010



# Barley

## Six Row Barley

**Yield as % of AC Metcalfe**

| Variety | Type | Dawson Creek 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of check | Dawson Creek 2006 - 2010 Avg. (%) | Dawson Creek 2006 - 2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of check | Fort St. John 2006-2010 Avg. (%) | Fort St. John 2006-2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC Albright | Feed | 42 | a | 85 | 88 | [4] | 69 | b | 94 | 101 | [5] | 89 | 94 | [9] |
| AC Lacombe | Feed | 49 | a | 99 | 100 | [4] | 76 | ab | 104 | 109 | [5] | 101 | 105 | [9] |
| **AC Metcalfe** | Malt | 50 | a | 100 | 100 | [4] | 73 | ab | 100 | 100 | [5] | 100 | 100 | [9] |
| CDC Kamsack | Malt | 42 | a | 84 | 87 | [3] | 66 | b | 90 | 84 | [3] | 87 | 86 | [6] |
| CDC Mayfair | Malt | 46 | a | 92 | 93 | [3] | 68 | b | 93 | 102 | [3] | 93 | 97 | [6] |
| *Celebration* * | Malt | 53 | a | 106 | 92 | [1] | 66 | b | 90 | 106 | [1] | 98 | 99 | [2] |
| Chigwell | Feed | 45 | a | 91 | 99 | [3] | 73 | ab | 100 | 99 | [3] | 96 | 99 | [6] |
| Stellar-ND | Malt | 50 | a | 100 | 77 | [3] | 63 | b | 86 | 104 | [4] | 93 | 90 | [7] |
| Sundre *** | Feed | 45 | a | 91 | 110 | [4] | 86 | a | 118 | 113 | [5] | 105 | 111 | [9] |
| Tradition | Malt | 39 | a | 79 | 93 | [4] | 65 | b | 89 | 102 | [5] | 84 | 97 | [9] |
| Trochu | Feed | 51 | a | 103 | 102 | [4] | 79 | ab | 108 | 118 | [5] | 105 | 110 | [9] |
| Vivar ** | Feed | 44 | a | 89 | 102 | [4] | 76 | ab | 104 | 113 | [5] | 97 | 108 | [9] |
| LSD (P=.05) = | | 11.66 | | | | | 9.37 | | | | | | | |
| CV value (%) = | | 14.83 | | | | | 9.06 | | | | | | | |

## Two Row Barley

**Yield as % of AC Metcalfe**

| Variety | Type | Dawson Creek 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of check | Dawson Creek 2006 - 2010 Avg. (%) | Dawson Creek 2006 - 2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of check | Fort St. John 2006-2010 Avg. (%) | Fort St. John 2006-2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC Metcalfe** | Malt | 37 | bcd | 100 | 100 | [5] | 61 | a-d | 100 | 100 | [5] | 100 | 100 | [10] |
| Bentley | Malt | 40 | bcd | 108 | 108 | [3] | 61 | a-d | 101 | 101 | [3] | 104 | 105 | [6] |
| Busby | Feed | 42 | bcd | 112 | 103 | [3] | 60 | a-d | 99 | 103 | [3] | 106 | 103 | [6] |
| CDC Austenson | Feed | 39 | bcd | 105 | 105 | [3] | 66 | a | 109 | 105 | [3] | 107 | 105 | [6] |
| CDC Carter ¶ | Feed | 27 | bcd | 91 | 94 | [2] | 50 | a-d | 103 | 97 | [2] | 97 | 96 | [4] |
| CDC Coalition | Feed | 45 | bc | 120 | 107 | [4] | 54 | a-d | 89 | 103 | [4] | 105 | 105 | [8] |
| CDC Cowboy | Feed, Forage | 34 | bcd | 92 | 108 | [4] | 52 | a-d | 86 | 89 | [4] | 89 | 99 | [8] |
| *CDC ExPlus* ¶ | Malt | 25 | d | 83 | 83 | [1] | 37 | cd | 79 | 79 | [1] | 81 | 81 | [2] |
| CDC Meredith | Malt | 39 | bcd | 106 | 107 | [3] | 60 | a-d | 100 | 106 | [3] | 103 | 106 | [6] |
| CDC Reserve | Malt | 37 | bcd | 101 | 109 | [3] | 61 | a-d | 101 | 104 | [3] | 101 | 106 | [6] |
| Cerveza | Malt | 44 | bcd | 118 | 116 | [2] | 65 | ab | 108 | 107 | [2] | 113 | 112 | [4] |
| Champion | Feed | 55 | a | 148 | 139 | [5] | 65 | ab | 107 | 106 | [5] | 128 | 123 | [10] |
| CONLON | Feed | 40 | bcd | 109 | 112 | [5] | 47 | d | 78 | 82 | [5] | 93 | 97 | [10] |
| *Gadsby* * | Feed | 41 | bcd | 110 | 110 | [1] | 63 | abc | 104 | 104 | [1] | 107 | 107 | [2] |
| Major | Malt | 33 | cd | 88 | 100 | [2] | 54 | a-d | 90 | 95 | [2] | 89 | 98 | [4] |
| Merit 57 | Malt | 44 | bcd | 119 | 116 | [4] | 63 | abc | 104 | 105 | [4] | 111 | 110 | [8] |
| Newdale | Malt | 42 | bcd | 114 | 109 | [5] | 64 | ab | 106 | 104 | [5] | 110 | 107 | [10] |
| Norman | Malt | 39 | bcd | 104 | 110 | [2] | 52 | a-d | 86 | 87 | [2] | 95 | 98 | [4] |
| Ponoka | Feed | 43 | bcd | 115 | 105 | [5] | 65 | ab | 108 | 106 | [5] | 111 | 106 | [10] |
| TR05671 | Feed | 38 | bcd | 102 | 100 | [3] | 59 | a-d | 97 | 101 | [3] | 100 | 101 | [6] |
| *TR07114* Δ | Malt | 44 | bcd | 118 | 118 | [1] | 59 | a-d | 98 | 98 | [1] | 108 | 108 | [2] |
| *TR07728* Δ | Feed | 46 | b | 124 | 118 | [2] | 58 | a-d | 96 | 100 | [2] | 110 | 109 | [4] |
| *TR08732* Δ | Feed | 41 | bcd | 111 | 111 | [1] | 57 | a-d | 93 | 93 | [1] | 102 | 102 | [2] |
| XENA | Feed | 45 | bc | 121 | 124 | [5] | 50 | bcd | 83 | 96 | [5] | 102 | 110 | [10] |
| LSD (P=.05) = | | 7.28 | | | | | 8.42 | | | | | | | |
| CV value (%) = | | 12.71 | | | | | 10.14 | | | | | | | |

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

**AC Metcalfe - check variety for 2 row**
**AC Metcalfe - check variety for 6 row**

* first year tested, very limited data available

** semi-dwarf type

*** smooth-awned type

¶ denotes hulless seed types (bu/ac adjusted for hulless)

Δ denotes materials not registered, very limited data available

## Feed Barley — Variety Descriptions

| | Variety | Type | B.C. Peace Averages 2006-2010: Days to Maturity +/- check | Height cm | Bushel Weight lbs/bu | Kernel Protein % +/- check | | Alberta Agdex 100/32 info: Resistance to Lodging | Loose Smut | False & Cv Smut | Root Rot | Scald | FHB Tolerance | Distributor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eligible for General Purpose Grades Only | | | | | | | | | | | | | |
| | AC Albright | 6 row | -7 | 67 | 51 | 1 | [10] | XX | P | P | P | F | XX | SeCan |
| ■ | AC Lacombe | 6 row | -2 | 64 | 49 | -1 | [10] | G | P | G | P | P | VP | SeCan |
| ■ | Busby | 2 row | -1 | 56 | 54 | 0 | [6] | G | VP | G | VP | F | F | Mastin Seeds, AB |
| ■ | CDC Austenson | 2 row | 4 | 53 | 55 | 0 | [6] | G | VP | VG | F | VP | F | SeCan |
| ■ | CDC Coalition | 2 row | 5 | 58 | 54 | 0 | [8] | G | VG | VG | F | VP | F | Canterra Seeds |
| ■ | CDC Cowboy | 2 row | 4 | 77 | 55 | 0 | [8] | G | P | G | F | P | G | SeCan |
| ■ | Champion | 2 row | 4 | 60 | 55 | -1 | [10] | G | VP | VG | XX | VP | F | Viterra |
| ■ | Chigwell | 6 row | 3 | 57 | 51 | 0 | [6] | G | P | G | P | G | VP | SeCan |
| ■ | CONLON | 2 row | -4 | 61 | 54 | 0 | [10] | G | F | F | G | VP | G | Seed Depot Corp. |
| ■ | *Gadsby* * | 2 row | 4 | 57 | 54 | 0 | [2] | F | VG | VG | F | VG | F | SeCan |
| ■ | Ponoka | 2 row | 6 | 60 | 55 | -1 | [10] | G | VG | VG | F | G | F | SeCan |
| ■ | Sundre *** | 6 row | 5 | 70 | 53 | -1 | [10] | G | P | VG | P | VG | VP | Mastin Seeds, AB |
| ■ | TR05671 | 2 row | 5 | 52 | 53 | 0 | [6] | G | VP | VG | G | F | G | AARD Lacombe |
| ■ | TR07728 Δ | 2 row | 2 | 59 | 56 | 0 | [4] | XX | P | VG | G | P | F | Viterra |
| | *TR08732* Δ | 2 row | 2 | 51 | 55 | 1 | [2] | | | | | | | Viterra |
| ■ | Trochu | 6 row | -5 | 63 | 52 | -1 | [10] | G | P | G | G | F | F | SeCan |
| ■ | XENA | 2 row | 2 | 60 | 54 | 0 | [10] | G | P | P | G | VP | G | Viterra |
| | Semi-dwarf varieties | | | | | | | | | | | | | |
| ■ | Vivar | 6 row | -2 | 60 | 51 | -1 | [10] | VG | F | VG | G | F | VP | SeCan |
| | Hulless Feed varieties | | | | | | | | | | | | | |
| ■ | CDC Carter | 2 row | -3 | 57 | 62 | 0 | [4] | VG | VG | VG | VP | P | F | SeCan |

## Malt Barley — Variety Descriptions

| | Variety | Type | B.C. Peace Averages 2006-2010: Days to Maturity +/- check | Height cm | Bushel Weight lbs/bu | Kernel Protein % +/- check | | Alberta Agdex 100/32 info: Resistance to Lodging | Loose Smut | False & Cv Smut | Root Rot | Scald | FHB Tolerance | Distributor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ | AC Metcalfe | 2 row | 0 | 62 | 55 | 0 | [20] | F | VG | F | F | VP | F | SeCan |
| ■ | Bentley | 2 row | -1 | 57 | 52 | 0 | [6] | G | P | G | G | VP | P | Canterra Seeds |
| ■ | CDC Kamsack | 6 row | -3 | 52 | 52 | 0 | [6] | G | F | G | F | P | VP | Canterra Seeds |
| ■ | CDC Mayfair | 6 row | -6 | 55 | 50 | 0 | [6] | G | VP | G | F | VP | P | Canterra Seeds |
| ■ | CDC Meredith | 2 row | 2 | 54 | 53 | -1 | [6] | F | VG | G | G | VP | F | SeCan |
| ■ | CDC Reserve | 2 row | -4 | 56 | 54 | 0 | [6] | F | VP | P | F | P | P | SeCan |
| ■ | *Celebration* * | 6 row | -6 | 64 | 52 | 2 | [2] | VG | VG | VG | P | VP | P | Canterra Seeds |
| ■ | Cerveza | 2 row | 1 | 60 | 53 | 0 | [4] | XX | VG | VG | F | VP | F | Mastin Seeds, AB |
| ■ | Major | 2 row | 1 | 56 | 53 | 0 | [4] | XX | VG | G | F | P | F | Viterra |
| ■ | Merit 57 | 2 row | 5 | 58 | 54 | -1 | [8] | F | P | VP | F | P | G | Canterra Seeds |
| ■ | Newdale | 2 row | 0 | 60 | 53 | 0 | [10] | F | VP | G | G | P | F | FP Genetics |
| ■ | Norman | 2 row | -6 | 45 | 53 | 2 | [4] | G | VP | VP | P | VP | G | FP Genetics |
| ■ | Stellar-ND | 6 row | -7 | 62 | 51 | 0 | [8] | XX | G | G | F | P | F | Canterra Seeds |
| | *TR07114* Δ | 2 row | -6 | 58 | 55 | 1 | [2] | | | | | | | SeCan |
| ■ | Tradition | 6 row | -5 | 67 | 52 | 0 | [10] | G | VP | G | G | VP | VP | Viterra |
| | Hulless Malt varieties | | | | | | | | | | | | | |
| ■ | *CDC ExPlus* * | 2 row | -2 | 58 | 61 | 0 | [2] | VG | P | P | VP | VP | G | U of S |

* first year tested, very limited data available

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

*** smooth-awned type

XX = insufficient data

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

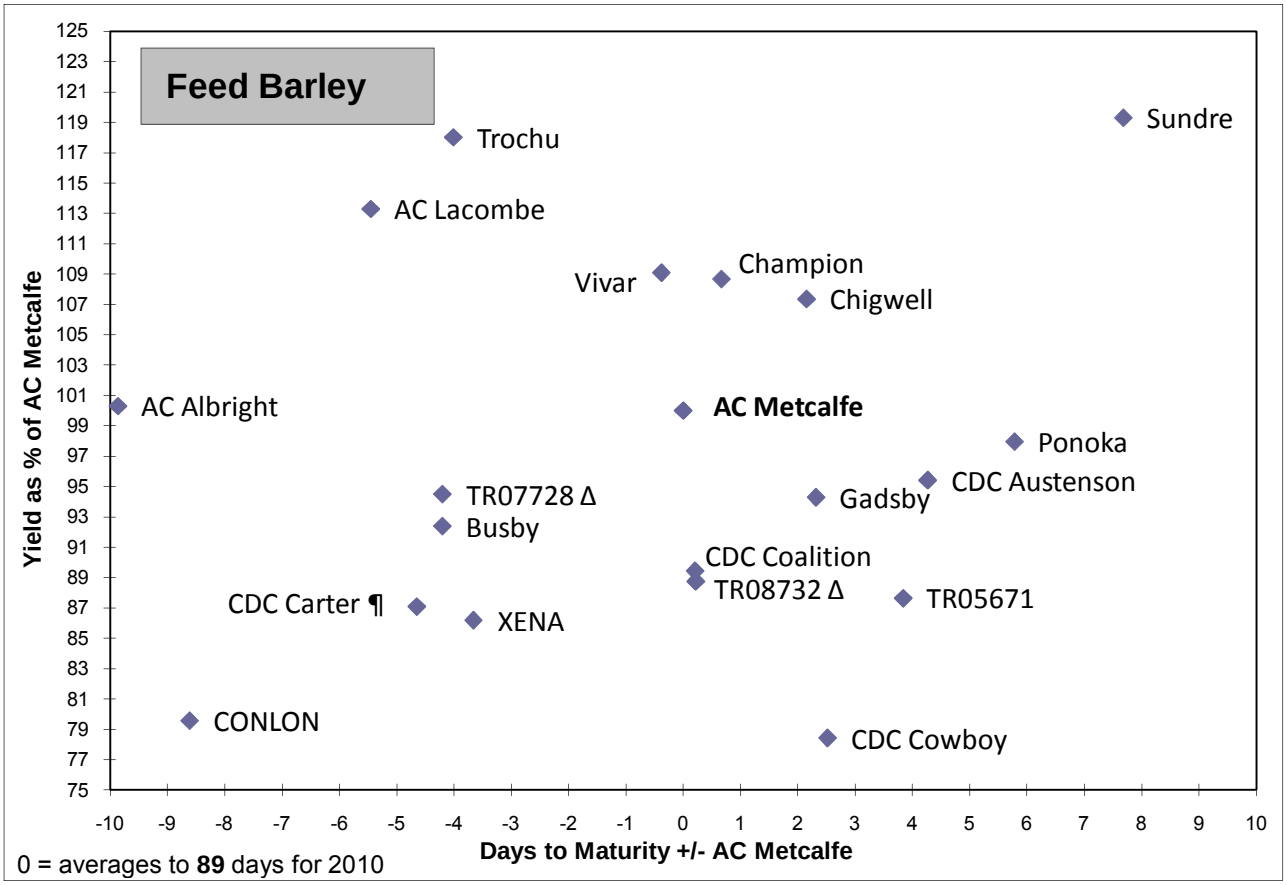
Δ denotes materials not registered, very limited data available

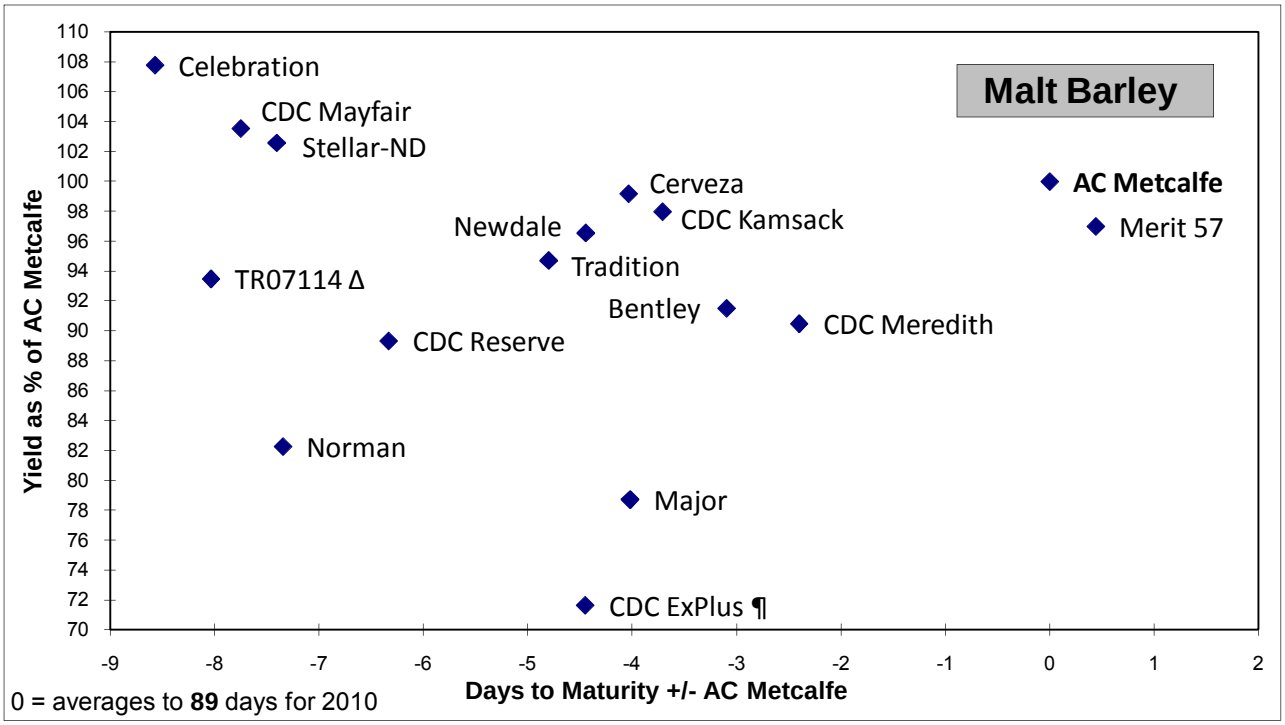
**AC Metcalfe - check variety**

Overall average maturity for **AC Metcalfe** is **90 days**

Overall average protein for **AC Metcalfe** is **14.2%**

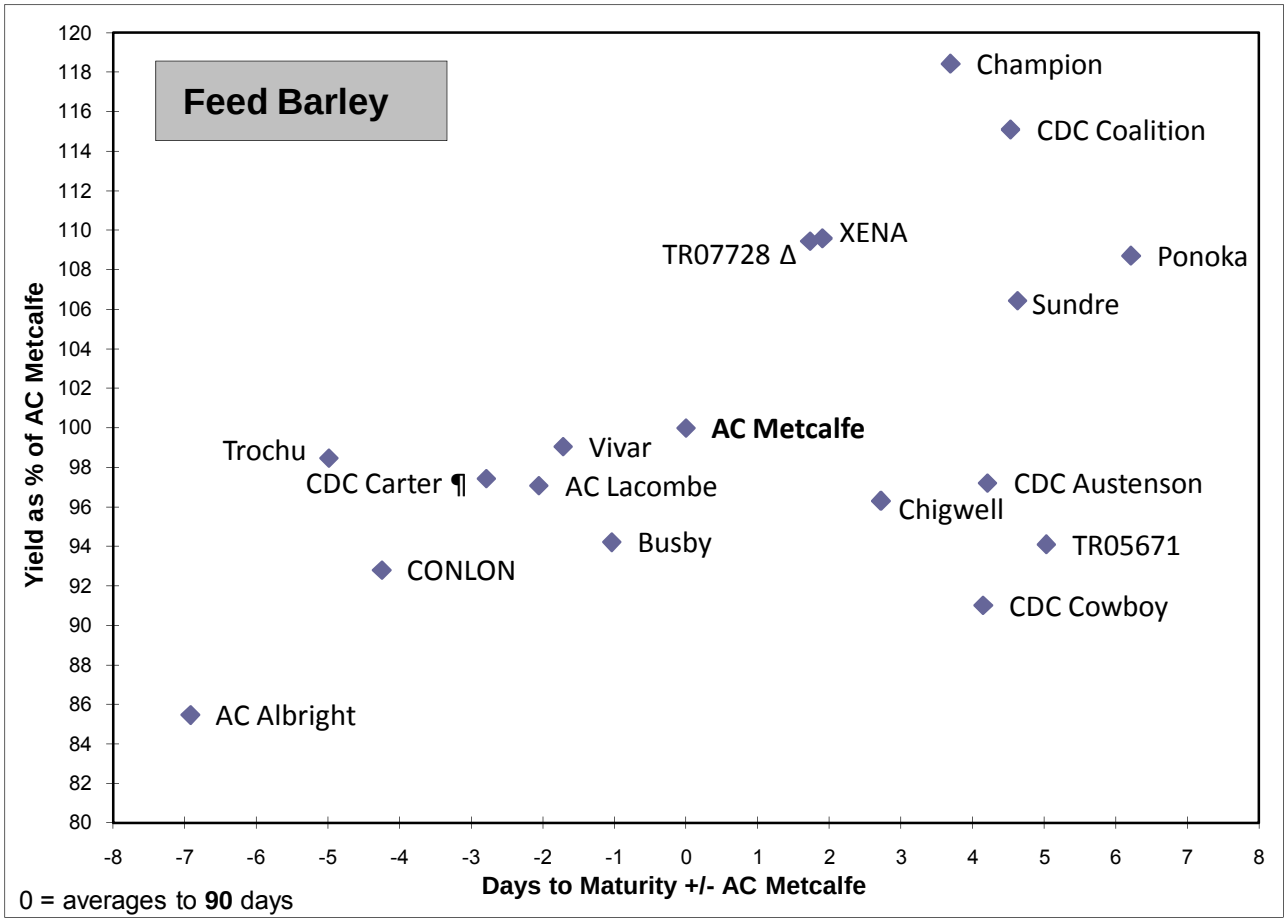
Numbers in square brackets [ ] is number of station years collected for protein

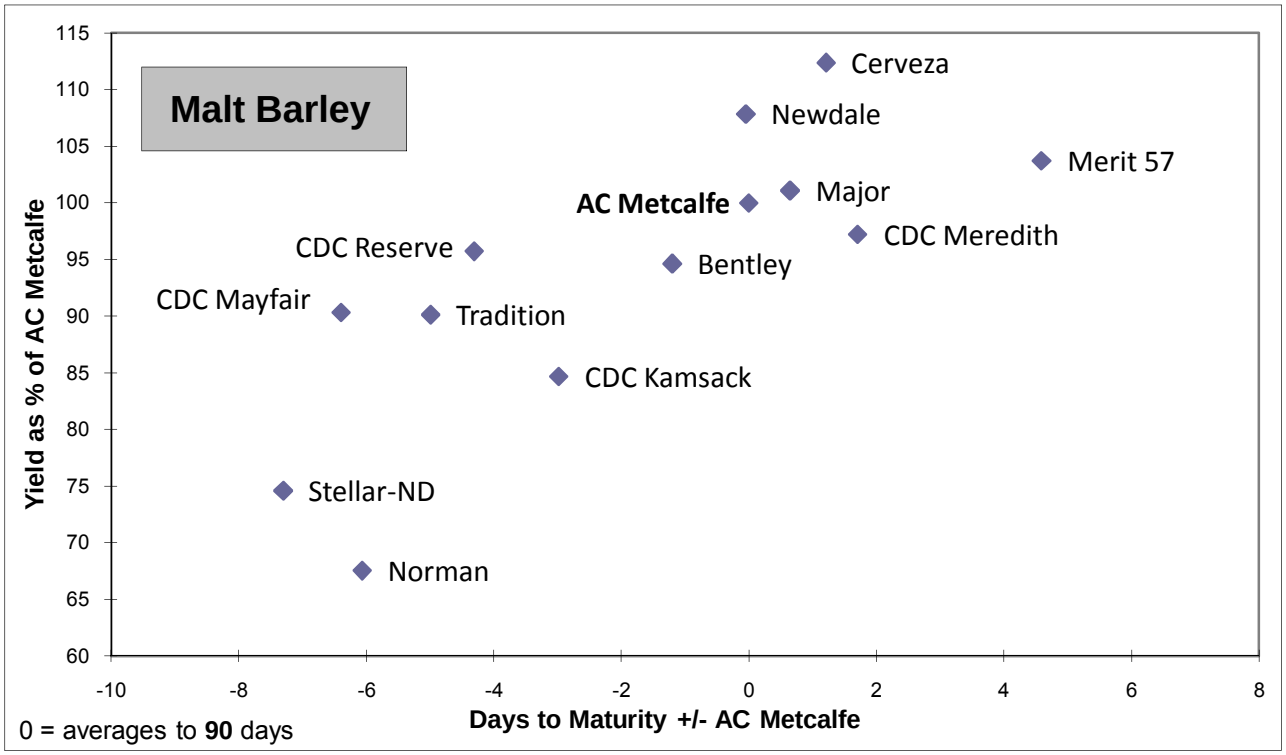



Δ denotes materials not registered

¶ denotes hulless seed types (bu/ac adjusted for hulless)




Δ denotes materials not registered

¶ denotes hulless seed types (bu/ac adjusted for hulless)

# OATS

Oats are usually a feed crop but some varieties are also suitable for higher value feed and food markets. The milling industry prefers higher protein varieties with plump kernels and lower hull content, while the horse industry prefers white hulled varieties. Hulless oat varieties have excellent feed and food value but need to be stored drier than normal varieties ( <12% moisture ) and do not flow as well in the bin due to their pubescence (hairs), which seem to "lock together". Yield values for hulless oat varieties are expressed after hull removal, which reduces the seed weight by 20-25% compared to the normal varieties. Keep in mind while comparing hulless to hulled, however currently (in this report) no hulless lines are being tested. (See earlier reports to obtain hulless oat information).

## Oats — Yield as % of CDC Dancer

| Variety | Colour | Dawson Creek 2010 Yield bus / acre | Dawson Creek 2010 Yield % of check | Dawson Creek 2006-2010 Avg. (%) | Dawson Creek 2006-2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | Fort St. John 2010 Yield % of check | Fort St. John 2006-2010 Avg. (%) | Fort St. John 2006-2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC Mustang | White | 81 a | 108 | 115 | [5] | 118 a | 116 | 116 | [5] | 112 | 116 | [10] |
| Bradley | White | 73 ab | 98 | 94 | [2] | 115 a | 114 | 104 | [2] | 106 | 99 | [4] |
| **CDC Dancer** | White | 75 ab | 100 | 100 | [5] | 102 a | 100 | 100 | [5] | 100 | 100 | [10] |
| CDC Minstrel | White | 62 cd | 82 | 94 | [4] | 99 a | 97 | 100 | [4] | 90 | 97 | [8] |
| CDC Orrin | White | 76 ab | 101 | 115 | [5] | 111 a | 109 | 114 | [5] | 105 | 115 | [10] |
| *CDC SO-I* * | | 62 cd | 83 | 83 | [1] | 103 a | 102 | 102 | [1] | 92 | 92 | [2] |
| Jordan | White | 69 bc | 93 | 110 | [5] | 116 a | 114 | 112 | [5] | 103 | 111 | [10] |
| Lu | White | 63 cd | 84 | 98 | [5] | 94 a | 93 | 96 | [5] | 89 | 97 | [10] |
| *OT3037* Δ | | 68 bc | 91 | 91 | [1] | 109 a | 107 | 107 | [1] | 99 | 99 | [2] |
| *OT3039* Δ | | 71 abc | 95 | 95 | [1] | 112 a | 110 | 110 | [1] | 103 | 103 | [2] |
| *OT3044* Δ | | 57 d | 77 | 77 | [1] | 85 a | 84 | 84 | [1] | 80 | 80 | [2] |
| Triactor | White | 62 cd | 83 | 115 | [4] | 105 a | 103 | 106 | [4] | 93 | 110 | [8] |
| LSD (P=.05) = | | 6.85 | | | | 19.52 | | | | | | |
| CV value (%) = | | 6.95 | | | | 12.79 | | | | | | |

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

* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

**Health Benefits Of Oats**

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

## Oats — Variety Descriptions

| Variety | Type | BC Peace Averages 2006 - 2010 Maturity as days +/- check | Height cm | Bushel Weight lbs/bu | Alberta Agdex 100/32 info Tolerance to: Lodging | Smuts | Distributor |
|---|---|---|---|---|---|---|---|
| ■ AC Mustang | Feed/Forage | 3 | 79 | 43 | G | F | Viterra |
| ■ Bradley | Milling | 1 | 69 | 38 | VG | VG | SeCan |
| ■ **CDC Dancer** | Milling | 0 | 74 | 41 | G | VG | FP Genetics |
| ■ CDC Minstrel | Milling | 3 | 70 | 42 | VG | VG | FP Genetics |
| ■ CDC Orrin | Milling | 4 | 75 | 42 | G | VG | FP Genetics |
| ■ *CDC SO-I* * | Feed | -4 | 69 | 39 | | | FP-Genetics |
| ■ Jordan | Milling | 8 | 76 | 40 | G | VG | SeCan |
| ■ Lu | Feed | -3 | 71 | 40 | G | VG | SeCan |
| *OT3037* Δ | Milling | 3 | 74 | 41 | | | U of S |
| *OT3039* Δ | Feed | 5 | 74 | 39 | | | U of S |
| *OT3044* Δ | Milling | 0 | 65 | 40 | | | U of S |
| ■ Triactor | Milling/Feed | 2 | 73 | 39 | G | P | Canterra Seeds |

**CDC Dancer - check variety**

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XX = insufficient data

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

Check has changed in **2010** from **Cascade** previuosly

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

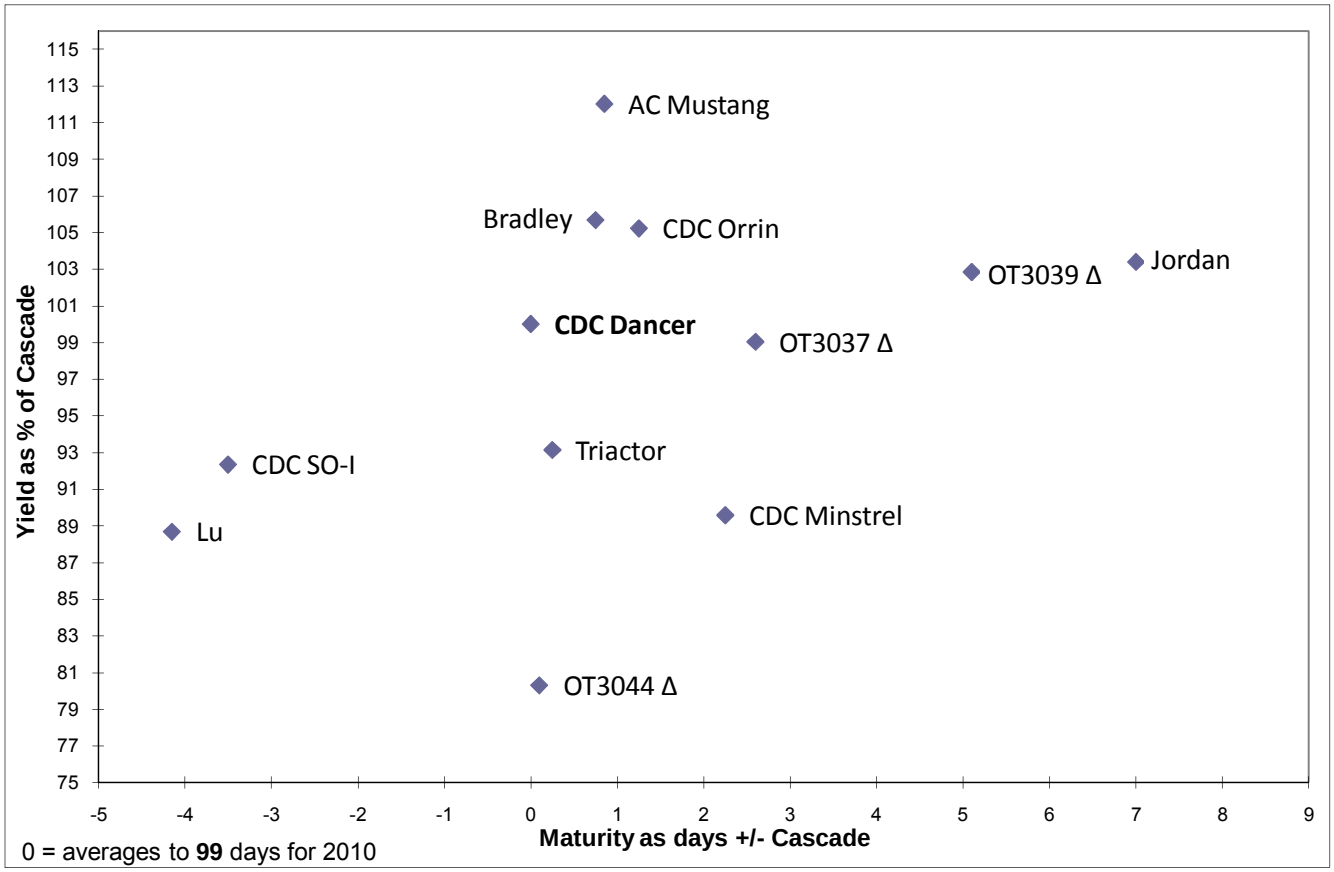
XX = insufficient data

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

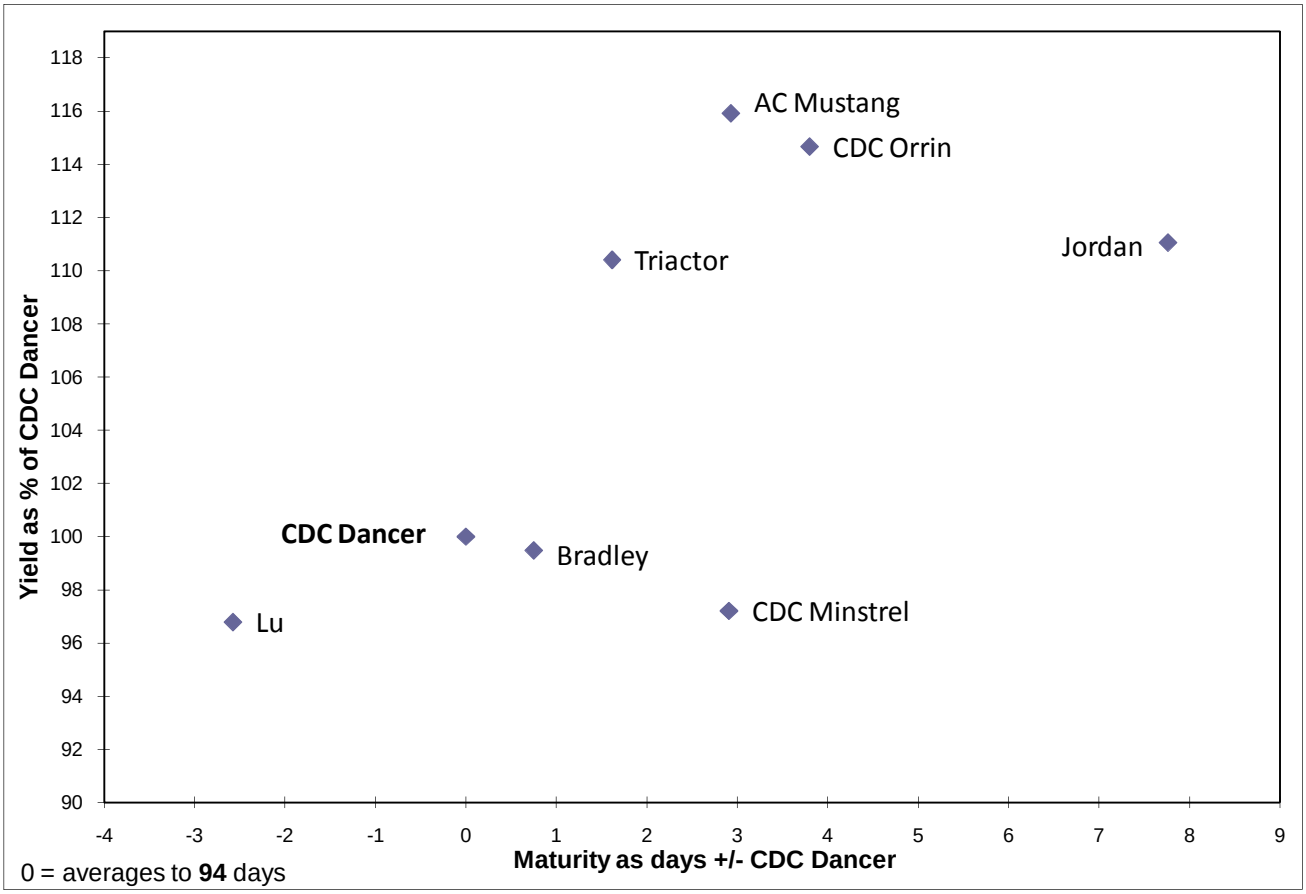
* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

## Oats — Regional Variety Performance — 2010




0 = averages to **99** days for 2010




**Oats for Feed**

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

**Forage Oats**

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

**Other Comments**

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

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

## SPRING TRITICALE

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

### Spring Triticale — Yield as % of Pronghorn

| Variety | Dawson Creek 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of check | Dawson Creek 2006-2010 Avg. (%) | Dawson Creek 2006-2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of check | Fort St. John 2006-2010 Avg. (%) | Fort St. John 2006-2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC Alta | 50 | a | 92 | 99 | [4] | 46 | c | 99 | 107 | [4] | 95 | 103 | [8] |
| AC Ultima | 47 | a | 85 | 107 | [5] | 42 | d | 89 | 91 | [5] | 87 | 99 | [10] |
| Bumper | 55 | a | 100 | 106 | [2] | 51 | a | 109 | 104 | [2] | 105 | 105 | [4] |
| **Pronghorn** | 55 | a | 100 | 100 | [5] | 47 | bc | 100 | 100 | [5] | 100 | 100 | [10] |
| *T204* Δ | 51 | a | 93 | 93 | [1] | 49 | ab | 105 | 105 | [1] | 99 | 99 | [2] |
| *Taza* * | 55 | a | 100 | 100 | [1] | 45 | c | 98 | 98 | [1] | 99 | 99 | [2] |
| Tyndal | 52 | a | 94 | 118 | [5] | 48 | bc | 102 | 101 | [5] | 98 | 110 | [10] |
| LSD (P=.05) = | 5.90 | | | | | 2.09 | | | | | | | |
| CV value (%) = | 7.64 | | | | | 3.01 | | | | | | | |

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

* first year tested, very limited data available

Δ denotes materials not registered, very limited data available

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

**Pronghorn - check variety**

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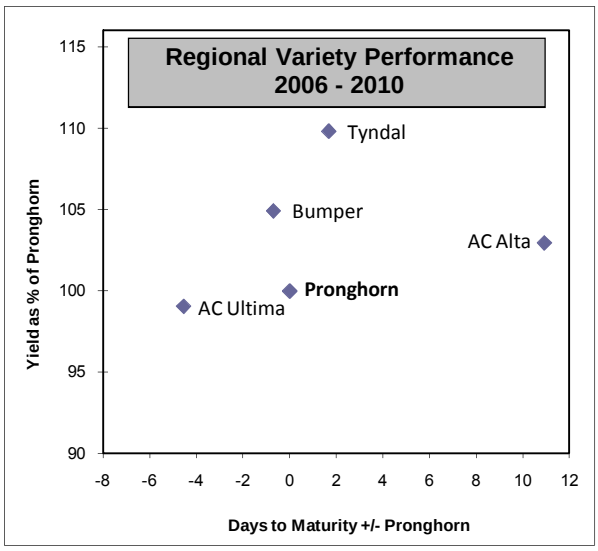
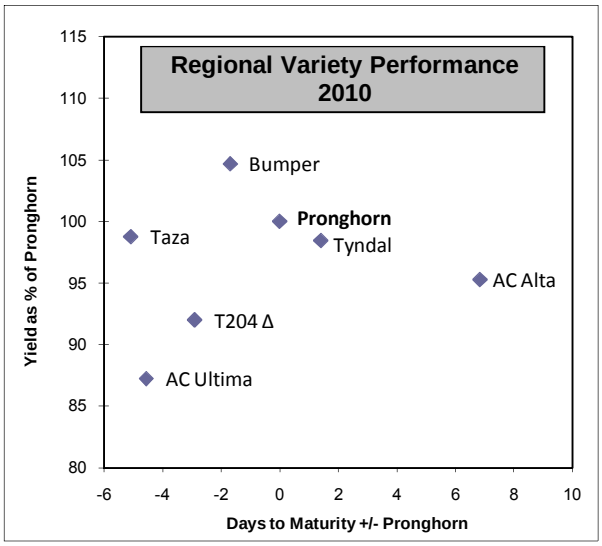
### Spring Triticale — Variety Descriptions

| | Variety | Maturity as days +/- check | Height (cm) | Bushel Weight (lbs/bus) | TKW (g / 1000) | AB Agdex 100/32 Resistance to: Lodging | Distributor |
|---|---|---|---|---|---|---|---|
| | AC Alta | 11 | 74 | 55 | 49 | XX | Progressive Seeds |
| | AC Ultima | -5 | 77 | 57 | 43 | G | FP Genetics |
| ■ | Bumper | -1 | 68 | 60 | 43 | VG | SeCan |
| | **Pronghorn** | 0 | 78 | 56 | 41 | G | Progressive Seeds |
| | *T204* Δ | -3 | 70 | 57 | 42 | | AAFC Lethbridge |
| ■ | *Taza* * | -5 | 79 | 57 | 41 | | AAFD Lacombe |
| ■ | Tyndal | 2 | 79 | 57 | 41 | G | SeCan |




Average long-term maturity for **Pronghorn** is **109** days.

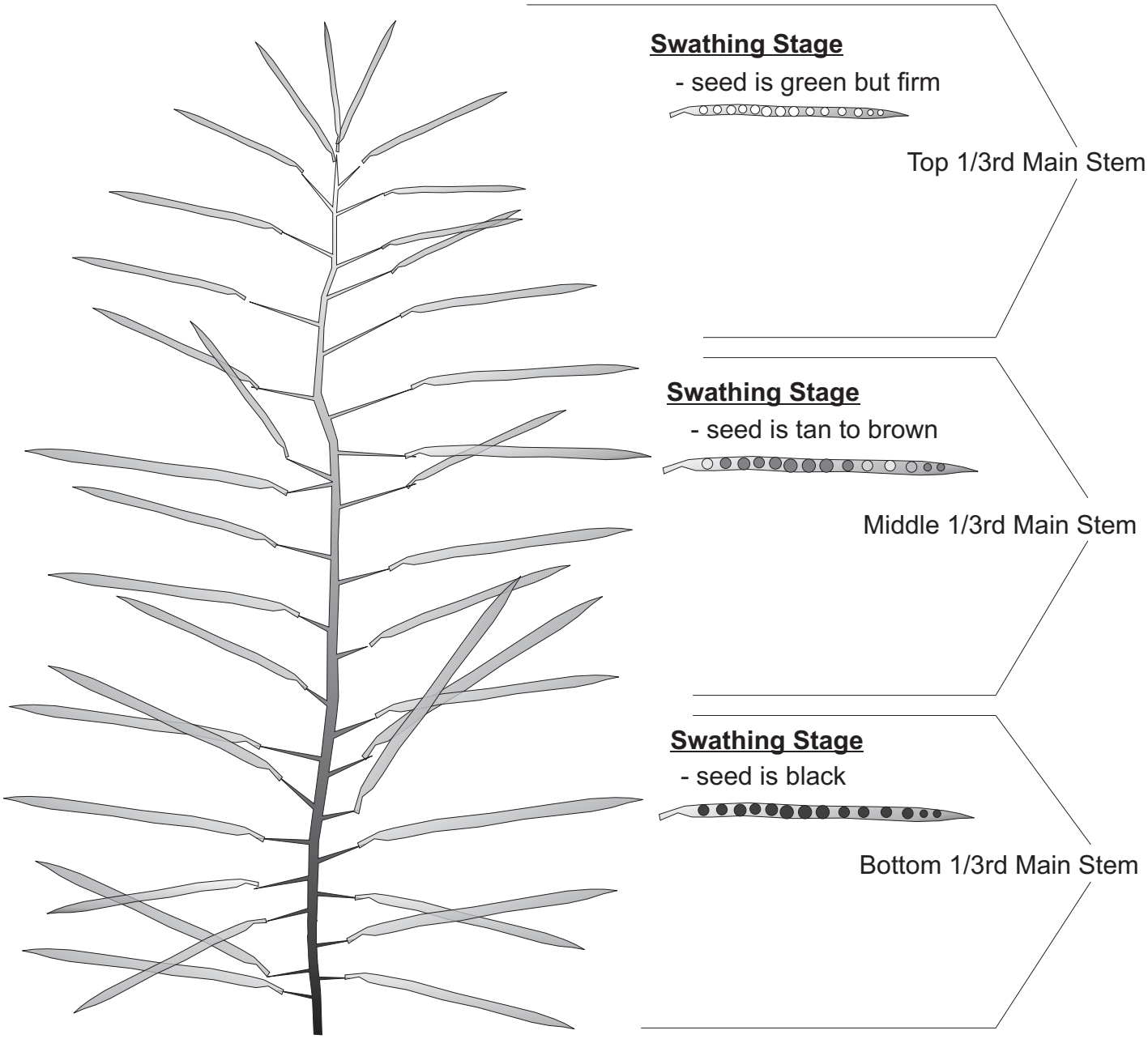



2010 maturity for **Pronghorn** is **107** days.

# Definition of Canola Maturity Used In This Report

Please check with the *Canola Council of Canada* for complete definition of “swathing maturity”. It is this “ready for swathing” time period that is used here to describe “maturity”.

It is very important to split pods and check the seed inside as outer pod colour does not reflect the true maturity of the plant. Often the outer pod colour can still be green while seed inside has turned to black. Other times the pod colour could be pale yellow while green seed is within. One field inspection is not enough, one must visit a particular field several times to catch a progression in maturity so as not to miss the safe swathing period. Cool wet weather periods can slow or even temporarily halt the progression of maturity, especially prior to swathing. Several portions of the same field per variety must be checked as well because often minor field variations can change maturity across a given field.



## Pests of Peace River Region Canola

Continuing Good News from 2010 is that clubroot of canola has NOT been found in the BC Peace. Soil samples from August 2009 were examined using the sensitive PCR test (for DNA) at the BC MAL Plant Diagnostic lab. There is no indication that BC canola fields have been contaminated. In spite of progress in plant breeding of a variety with some resistance to the disease, it is still far better to not have the fungus in the soil in the region. Clubroot is a canola disease that could seriously reduce the ability of BC Peace region farms to grow the crop. It is present in hundreds of fields in Alberta. The closest known infested fields are in the Edmonton area, but clubroot could easily be transferred from there to here, with a little bit of soil. It may be a good idea for you as a landowner having energy or construction equipment visiting (perhaps for pipeline work), to get an agreement that the equipment be cleaned prior to it coming on to your property.
Check out the problem on the Internet: Alberta Clubroot Management Plan
http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/agdex11519

Also see links at the bottom of that document, to a disease fact sheet, Best Management Practices and an equipment cleaning protocol developed to disinfect machinery and equipment to prevent the spread of clubroot.

Another big threat (also not a bug) to BC Peace agriculture is a group of weed species that until recently were absent, and will still not often be seen: the hawkweeds. They have flowers and seeds like dandelions, but they are also perennial and displace other vegetation by creeping along the soil surface. Orange hawkweed is most distinctive, but there are also yellow species that at a glance may look like relatively harmless Hawksbeard. Get more information at http://www.invasiveplantcouncilbc.ca/publications/TIPS/Invasive_Hawkweeds_TIPS.pdf or ask for a poster at the BC MAL office. The NorthEast Invasive Plant Committee NEIPC with your help is working hard to keep these and other species out of the region.

The BC Peace region may not usually be an especially bad place for insect damage to canola crops, but since insecticide treatments can make the difference between a positive and a negative financial margin, and untreated insect pests in a particular year can be even more costly, it is worth knowing the players and the risks. Further information is available from agriculture service suppliers (id. booklets), and on websites such as Canola Council's "canola watch"
http://www.canola-council.org/canola_watch.aspx
For brief discussions of five insect pest species that have caused significant damage in the past: see "Pest" article in this spot in the 2008 BCGPA Variety Trials book, or the web version at http://www.bcgrain.com/Variety2008.htm

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

**Due to 2010 severe drought - no new 2010 data**

## Argentine Canola

**Yield as % of 45H21**

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

**45H21 - check variety**

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

Δ = not currently registered

** specialty oil

*** Club-root Resistance

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 in with "conventional" Argentine varieties (actually as three napus trials with a common check) and thus, conventional herbicides are used for weed control. (See page 6 for herbicides used). However, combining the three trials to produce the chart above means statistical analysis cannot be shown for the entire group. Coefficient of Variance (CV) values of the napus trials for 2009 were as follows: DC = 8.57, 9.94, 6.47 FSJ = 7.55, 6.85, 8.98

# Argentine Canola

## Variety Descriptions

**Due to 2010 severe drought…**
**…no new 2010 data**

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

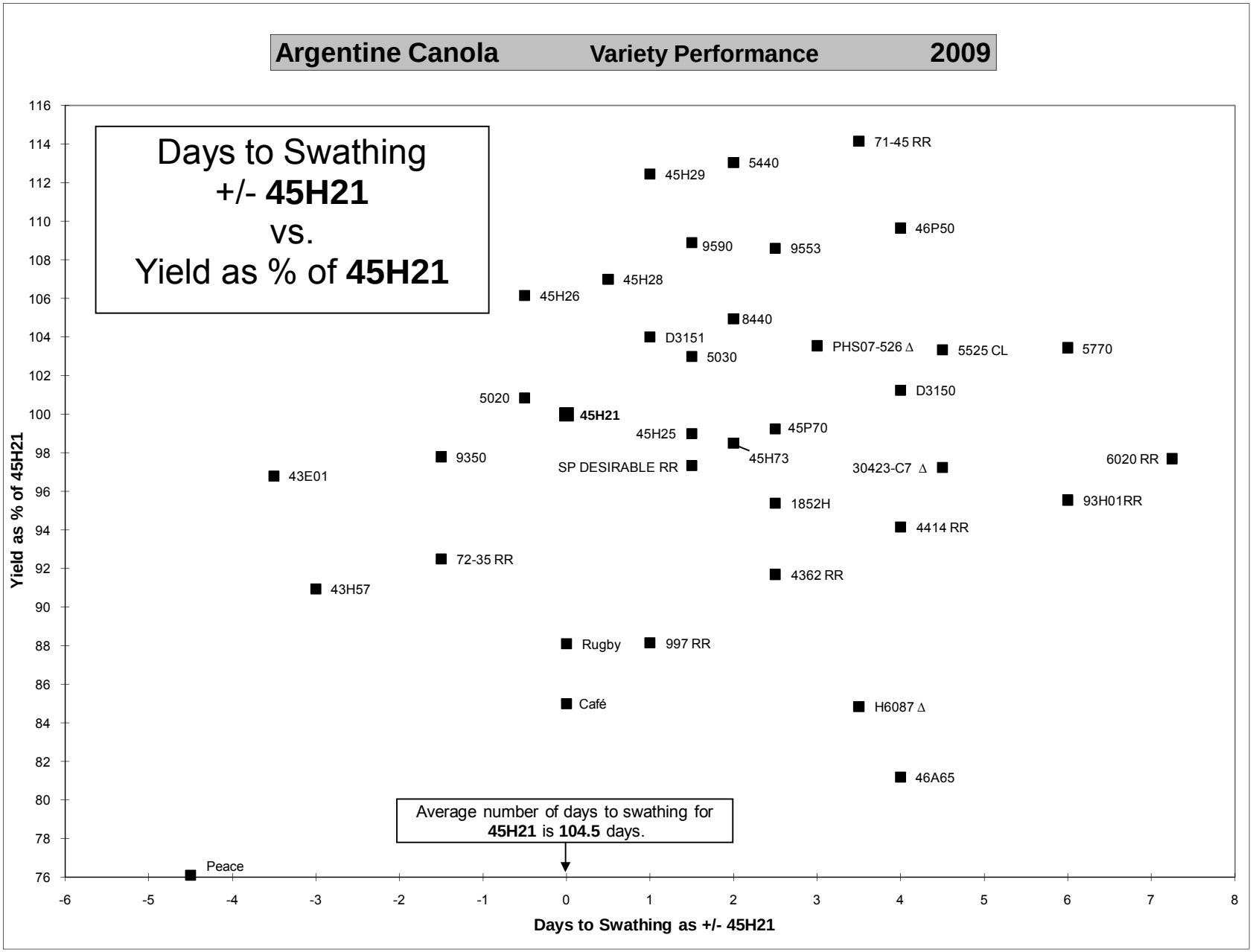
■ Protection by Plant Breeders' Rights

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

Roundup Ready® is a registered trademark of Monsanto Canada Inc.
LibertyLink® is a registered trademark of Bayer CropScience
Clearfield® is a registered trademark of BASF

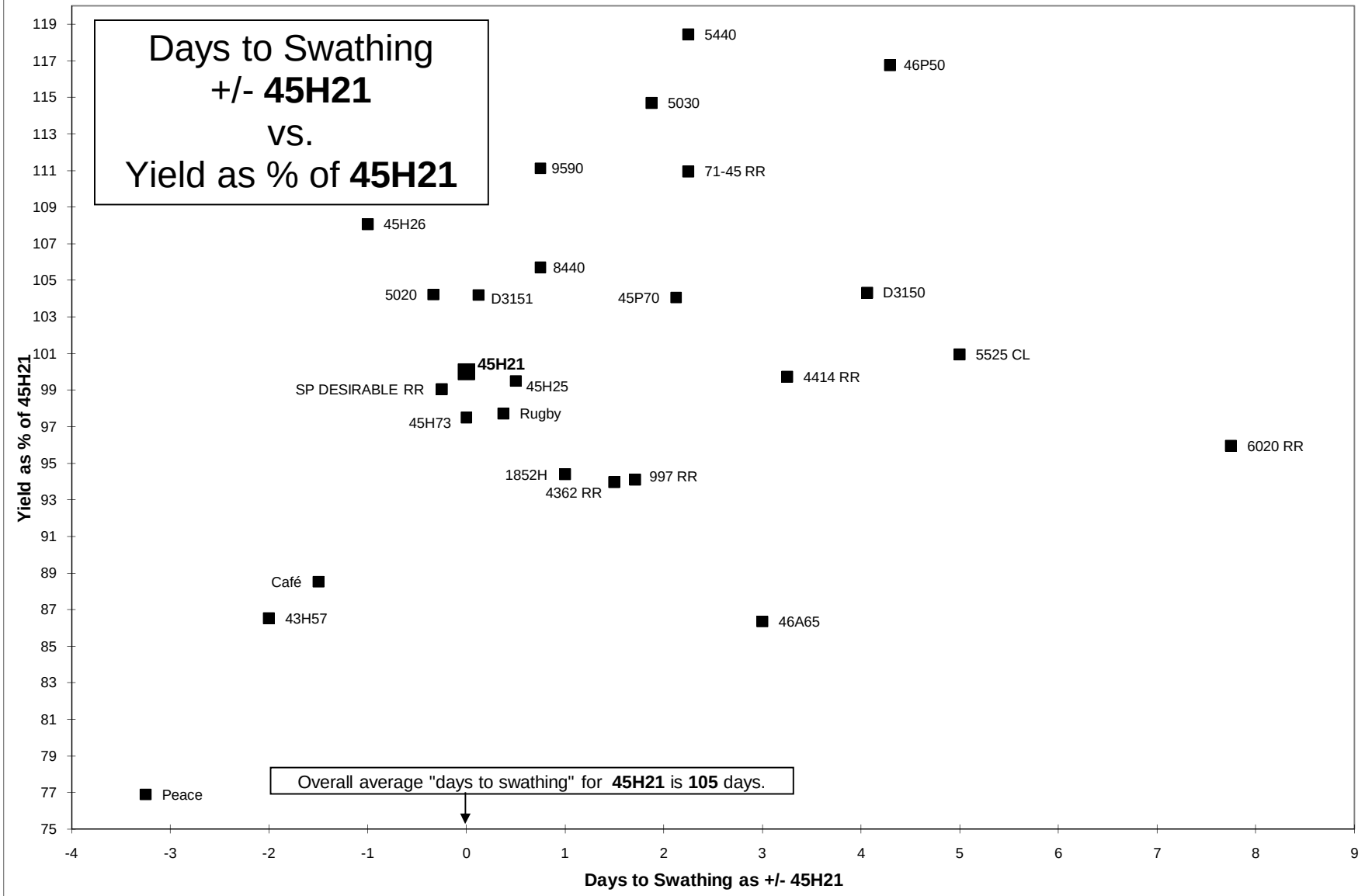
Overall average "days to *swathing*"[1] for **45H21** is **105** days.

**R** = Resistant, **MR** = Moderately Resistant, **MS** = Moderately Susceptible
**OP** = open pollinated, **SYN** = synthetic, **HYB** = hybrid
[1] For full description of "*Days to swathing*" see page 21.
* caution, first year tested and or very limited data available
Δ = not currently registered
** specialty oil
*** Club-root Resistance




**Due to 2010 severe drought - no new 2010 data**

# Argentine Canola Variety Performance 2006-2009




**Due to 2010 severe drought - no new 2010 data**

## *ARGENTINE CANOLA (* Brassica napus)

This *historical variety data* is derived from the *Western Canada Canola/Rapeseed Recommending Committee* (WCC/RRC) for registration purposes, coordinated by the *Canola Council of Canada*. It has been supplied here in its entirety from *Alberta Factsheet Agdex 100/32*.

**Variety Description**

| Herbicide tolerance | | | WCC/RRC Registration Data | | | | | |
|---|---|---|---|---|---|---|---|---|
| Variety | Type | Yield (% of checks) | Years Tested | Maturity (+/- days) | Height (+/-cm) | Blackleg Resistance | Clubroot Resistance | Distributor |
| **CHECKS** | | | | | | | | |
| 46A65 and Q2 | OP | 100 | | 0 | 0 | | | |
| **Clearfield** | | | | | | | | |
| 1651 H | H | 120 | 2005-06 | 0 | 6 | R | | CANTERRA SEEDS |
| 45H73 | H | 122 | 2004-05 | -2 | 2 | R | | Pioneer Hi-Bred |
| 45H74 | H | 126 | 2008-09 | -1 | 1 | R | | Pioneer Hi-Bred |
| 45P70 | H | 119 | 2004-05 | -1 | 5 | R | | Viterra |
| 5525 CL | H | 126 | 2007-08 | 1 | 11 | R | | BrettYoung |
| 5535 CL | H | 127 | 2008-09 | -2 | 4 | R | | BrettYoung |
| 71-40 CL | H | 117 | 2006-07 | 0 | 7 | R | | DEKALB |
| NX4-205 CL * | OP | 108 | 2008-09 | 0 | 7 | R | | Dow AgroSciences |
| **Liberty Link** | | | | | | | | |
| 5020 | H | 125 | 2001-02 | 0 | 2 | R | | Bayer CropScience |
| 5030 | H | 131 | 2001-02 | 0 | 20 | R | | Bayer CropScience |
| 5440 | H | 135 | 2004-05 | 0 | 7 | R | | Bayer CropScience |
| 5770 | H | 135 | 2007-08 | 3 | 8 | R | | Bayer CropScience |
| 8440 | H | 132 | 2004-05 | -1 | 0 | R | | Bayer CropScience |
| 1141 * | H | 120 | 2005-06 | -2 | 3 | MR | | Bayer CropScience |
| L130 | H | 136 | 2008-09 | 0 | 4 | R | | Bayer CropScience |
| L150 | H | 143 | 2008-09 | 1 | 9 | R | | Bayer CropScience |
| 3303 LL | Syn | 115 | 2004-05 | -1 | -2 | MR | | BrettYoung |
| 1145 * | H | 133 | 2007-08 | 1 | 9 | R | | Cargill |
| 9590 | H | 130 | 2003-04 | 0 | 4 | R | | Viterra |
| **Roundup Ready** | | | | | | | | |
| 4414 RR | H | 113 | 2004-05 | 0 | 3 | R | | BrettYoung |
| 4424 RR | H | 112 | 2006-07 | 1 | 11 | MR | | BrettYoung |
| 4434 RR | H | 111 | 2006-07 | 0 | 4 | MR | | BrettYoung |
| 6020 RR | H | 119 | 2007-08 | 1 | 0 | MR | | BrettYoung |
| 6040 RR | H | 121 | 2007-08 | 1 | 9 | R | | BrettYoung |
| 6060 RR | H | 134 | 2008-09 | 2 | 10 | R | | BrettYoung |
| 6130 RR | Syn | 118 | 2007-08 | -1 | 0 | R | | BrettYoung |
| 997 RR | OP | 105 | 2004-05 | -1 | -3 | R | | BrettYoung |
| 1818 | OP | 106 | 2002-03 | 1 | -8 | R | | CANTERRA SEEDS |
| 1841 | H | 114 | 2000-01 | 2 | 6 | R | | CANTERRA SEEDS |
| 1896 | H | 106 | 2002-03 | -1 | 2 | R | | CANTERRA SEEDS |
| 1918 | OP | 115 | 2007-08 | 0 | 1 | MR | | CANTERRA SEEDS |
| 1950 | H | 123 | 2007-08 | 0 | 5 | MR | | CANTERRA SEEDS |
| 1956 | Syn | 119 | 2007-08 | 0 | 4 | R | | CANTERRA SEEDS |
| 1970 | H | 128 | 2008-09 | 2 | 7 | R | | CANTERRA SEEDS |
| 1852H | H | 108 | 2004-05 | -1 | 3 | R | | CANTERRA SEEDS |
| 1855H | H | 110 | 2004-05 | -1 | 0 | R | | CANTERRA SEEDS |
| 1960 ** | H | 121 | 2009 | 2 | | R | R | CANTERRA SEEDS |
| v1037 * | H | 114 | 2005-06 | -1 | 8 | R | | Cargill - VICTORY Hybrid Canola |
| v1040 * | H | 123 | 2008-09 | 1 | 4 | R | | Cargill - VICTORY Hybrid Canola |
| v2035 * | H | 118 | 2008-09 | -1 | 2 | R | | Cargill - VICTORY Hybrid Canola |
| 32-75 | OP | 107 | 2002-03 | -3 | -6 | R | | DEKALB |
| 34-65 | OP | 104 | 2003-04 | 1 | 5 | R | | DEKALB |
| 71-45 RR | H | 125 | 2003-04 | -1 | 3 | MR | | DEKALB |
| 72-35 RR | H | 116 | 2005-06 | -3 | -6 | MR | | DEKALB |
| 72-55 RR | H | 121 | 2006-07 | -1 | -4 | MR | | DEKALB |
| 72-65 RR | H | 117 | 2007-08 | 1 | 0 | R | | DEKALB |
| 73-35 RR | H | 122 | 2008-09 | -2 | -6 | R | | DEKALB |
| 73-45 RR | H | 126 | 2008-09 | -3 | -5 | R | | DEKALB |
| 73-55 RR | H | 129 | 2008-09 | -1 | -2 | R | | DEKALB |
| 73-65 RR | H | 126 | 2008-09 | -1 | 1 | R | | DEKALB |
| 73-67 RR ** | H | 113 | 2009 | -1 | | R | R | DEKALB |
| 73-77 RR ** | H | 114 | 2009 | 0 | | R | R | DEKALB |
| NX4-105 RR * | OP | 109 | 2007-08 | 2 | 3 | R | | Dow AgroSciences |
| NX4-106 RR * | OP | 106 | 2008-09 | 1 | 6 | R | | Dow AgroSciences |
| D3150 | H | 117 | 2006-07 | -1 | 10 | MR | | DuPont |
| D3151 | H | 118 | 2006-07 | -1 | 6 | MR | | DuPont |
| D3152 | H | 126 | 2008-09 | -2 | 4 | R | R | DuPont |
| 83S01 RR | Syn | 117 | 2005-06 | -2 | 6 | MR | | FP Genetics |
| 93H01 RR | H | 118 | 2005-06 | 0 | 7 | MR | | FP Genetics |
| 45H26 | H | 119 | 2004-05 | -1 | 0 | R | | Pioneer Hi-Bred |
| 45H28 | H | 122 | 2006-07 | -1 | 2 | R | | Pioneer Hi-Bred |
| 45H29 | H | 131 | 2008-09 | -1 | 10 | R | R | Pioneer Hi-Bred |
| 45S51 | H | 115 | 2006-07 | 0 | 0 | R | | Pioneer Hi-Bred |
| 45S52 | H | 119 | 2008-09 | -1 | 5 | MR | | Pioneer Hi-Bred |
| Café | OP | 104 | 2004-05 | -5 | -5 | R | | Secan |
| RUGBY | OP | 106 | 2005-06 | 0 | 1 | R | | Secan |
| 9553 | H | 121 | 2006-07 | -1 | 3 | R | | Viterra |
| 46P50 | H | 119 | 2004-05 | 1 | 3 | R | | Viterra |
| 9557S | H | 125 | 2008-09 | -2 | 5 | R | | Viterra |
| 9558C | H | 124 | 2008-09 | -1 | 9 | R | R | Viterra |
| VT 500 | H | 117 | 2008-09 | 0 | 4 | R | | Viterra |
| VT Barrier | OP | 111 | 2006-07 | -1 | 1 | R | | Viterra |
| VT Remarkable | Syn | 120 | 2007-08 | 1 | 9 | R | | Viterra |

Type: H - hybrid; Syn - synthetic or composite hybrid; OP - open-pollinated

* Indicates varieties with Specialty oil profiles

** Indicates varieties with three year interim registration as of 2010

**Canola Variety Information for 2011**

With the absence of the Prairie Canola Variety Trials (PCVT) in 2010, the only other independent, full prairie-wide source of canola variety performance data is registration data. The BC Grain Producers Association did design and conducted its own independent canola performance trials at both Dawson Creek and Fort St. John, BC in 2010 however both sites were too adversely affected by severe drought to produce strong reliable data. The registration data as presented here on page 29 is accepted by the Western Canadian Canola/Rapeseed Recommending Committee (WCC/RRC) and used to register varieties with the Canadian Food Inspection Agency (CFIA) Variety Registration office. The historical data presented in the table on page 29 includes most commercial varieties with seed available for 2011 planting, but does not include new 2010 prairie-wide data.

The following explanation about the data on page 29 is taken directly from Alberta Factsheet Agdex 100/32.

The WCC/RRC trial data is a two year data set, where the 1st year "private" data is from trials conducted only by the breeding organization, and the 2nd year "co-op" data is from sites publicly organized through WCC/RRC. The varieties are tested at twenty-five or more locations over the two years and compared to standard check varieties. Trial design was small plot replicated trials, with weed control managed through conventional herbicides (not by herbicide tolerance specific products). Trial protocols aim for minimal weed competition in order to only show the genetic (yield, height, maturity, lodging, quality) differences between the varieties under various conditions. Contact Raymond Gadoua with the Canola Council of Canada for a complete summary of canola registration data from 1998 – 2009 (gadouar@canolacouncil.org or 306 683-2403).

Note that data shown is from different years and all varieties are NOT tested within the same year and location. The table indicates which years the variety data is derived from. Although the numbers are an average of performance at all locations, an individual variety may perform unpredictably different at specific location / years. Industry variety performance data from individual seed companies can be used to complement the registration data for variety purchase decisions.

**Blackleg rating**
The blackleg rating represents disease tolerance relative to the highly susceptible variety Westar. Varieties with a resistant (R) or moderately resistant (MR) rating for blackleg have shown the greatest ability to suppress blackleg incidence and severity, but can still develop some lesions or cankers. Newer pathotypes of blackleg have been confirmed and not all varieties will have resistance in all fields. As a result, individual field performance may vary from performance in the registration trials. Lengthening rotation to improve blackleg control may be needed in fields where newer blackleg pathotypes have been confirmed, or where fall field scouting shows higher than expected levels of blackleg, or where there is a history of tight rotation canola.

**Clubroot rating**
The clubroot rating identifies varieties with resistance that greatly reduced root galls in Alberta field nurseries relative to susceptible varieties. Clubroot-resistant varieties should be grown on fields infested by this disease, but not more frequently than once every 4 years to delay resistance breakdown.

**Early maturing canola**
Canola growers in short season zones, or in areas with adverse spring conditions that greatly delay seeding have several options of varieties with shorter maturity. There are several varieties that were tested in special early napus trials, where maturity targets were about 1 week earlier than normal Argentine (*B. napus)* canola. Three early napus varieties currently available are **43E01**, **43H57** (Pioneer Hi-Bred) and **9350** (Viterra); all are early Roundup Ready hybrids with similar to slightly higher yield than normal open-pollinated canola varieties, and about 50% higher yield than Polish types. Another option is to grow Polish types of canola, which mature approximately 2 weeks earlier than normal Argentine canola. Although seed sources of Polish canola have greatly diminished over the past decade, there are several varieties available: **AC Sunbeam** (Secan); **Early One** (Mastin Seeds). Polish types of canola only have tolerance to conventional herbicides, and are susceptible to blackleg and clubroot.

**Canola Quality Juncea**
Canola quality *Brassica juncea* is a relatively new class that is slightly better adapted to areas with periods of hot, dry conditions. Juncea canola has very good blackleg resistance, and similar shattering resistance as Polish canola. Production is through contract system only. Viterra has several juncea canola varieties available: XCEED brands VT Oasis CL, and 8571. XCEED varieties are Clearfield tolerant.

**Do not grow de-registered canola varieties**
De-registered varieties can be detected at very low levels and will result in rejected export shipments and increased monitoring of Canadian canola. If you have canola seed of these de-registered varieties, please contact your grain company before you deliver.
Bromoxynil tolerant - 295BX, Cartier BX, Zodiac BX, Renegade BX
Roundup Ready - Polish (B. rapa) canola: Hysyn 101RR
Liberty tolerant - Exceed, 2631 LL, Swallow, SW Legion LL, SW Flare LL, LBD 2393 LL, Innovator, Independence, HCN 14, Phoenix, Liberty Link hybrids 3850, 2153, 3640, 3880, 2163, 2273

## FIELD PEAS

### Field Pea (Green Seed) — Yield as % of Cooper

| Variety | **Designated Powdery Mildew Resistant | Dawson Creek 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of check | Dawson Creek 2006-2010 Avg. (%) | Dawson Creek 2006-2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of check | Fort St. John 2006-2010 Avg. (%) | Fort St. John 2006-2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Camry | VG | 33 | b | 88 | 87 | [5] | 14 | a | 76 | 97 | [5] | 84 | 92 | [10] |
| *CDC 1932-201* Δ | VG | 39 | a | 105 | 105 | [1] | 15 | a | 85 | 85 | [1] | 98 | 95 | [2] |
| CDC Patrick | VG | 39 | a | 104 | 96 | [3] | 19 | a | 108 | 104 | [3] | 106 | 100 | [6] |
| CDC Striker | P | 33 | b | 87 | 81 | [5] | 18 | a | 101 | 101 | [5] | 91 | 91 | [10] |
| **Cooper** | VG | 38 | ab | 100 | 100 | [5] | 18 | a | 100 | 100 | [5] | 100 | 100 | [10] |
| Cutlass | VG | 40 | a | 106 | 96 | [3] | 20 | a | 115 | 107 | [3] | 109 | 101 | [6] |
| Mendel | VG | 33 | b | 88 | 89 | [3] | 16 | a | 90 | 96 | [3] | 89 | 93 | [6] |
| *MP1867* Δ | VG | 33 | b | 89 | 89 | [1] | 17 | a | 95 | 95 | [1] | 91 | 92 | [2] |
| Nitouche | P | 34 | b | 91 | 91 | [5] | 19 | a | 108 | 100 | [5] | 97 | 95 | [10] |
| LSD (P=.05) = | | 3.58 | | | | | 4.51 | | | | | | | |
| CV value (%) = | | 6.84 | | | | | 15.02 | | | | | | | |

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

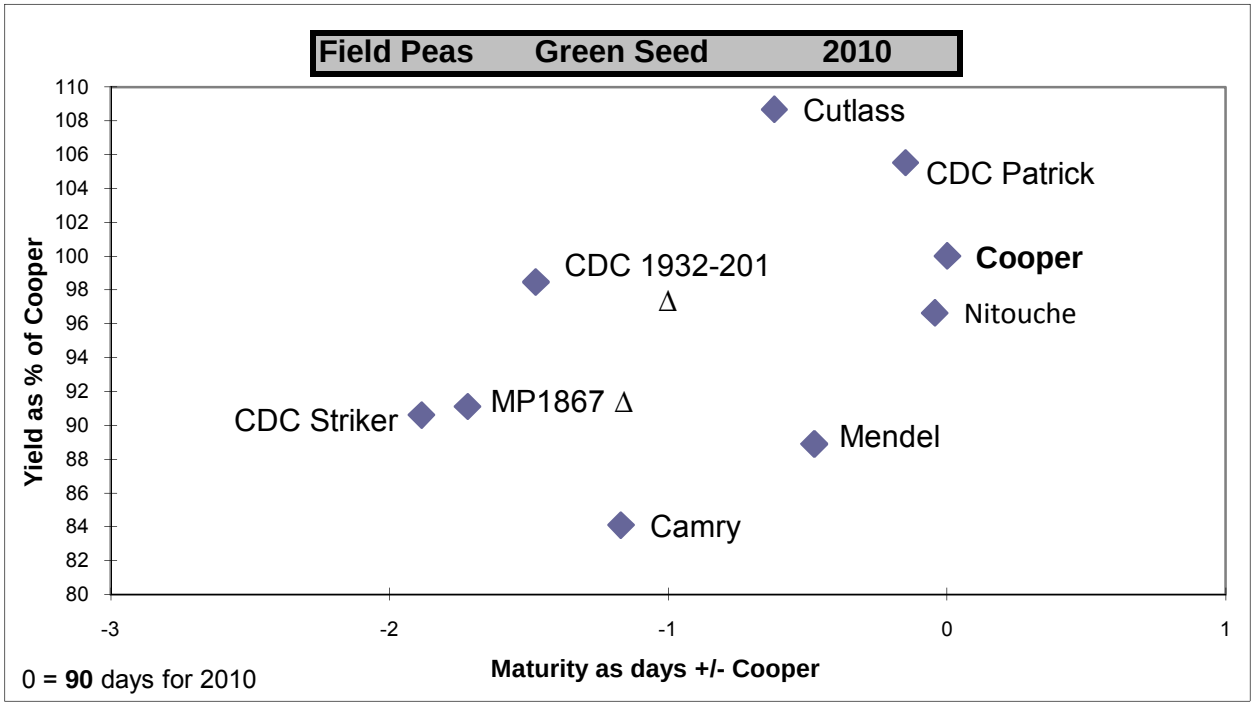
**Powdery Mildew resistance **VG**=Very Good, **F**=Fair, **P**=Poor (data: Alberta Agdex 100/32)

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available

**Cooper - check variety**

Note: **Cooper** replaces **Nitouche** as the check from 2010 onward



# Field Pea (Yellow Seed)

**Yield as % of Cutlass**

| Variety | **Designated Powdery Mildew Resistant | Dawson Creek 2010 Yield bus / acre | | Dawson Creek 2010 Yield % of check | Dawson Creek 2006-2010 Avg. (%) | Dawson Creek 2006-2010 Stn. Yrs. | Fort St. John 2010 Yield bus / acre | | Fort St. John 2010 Yield % of check | Fort St. John 2006-2010 Avg. (%) | Fort St. John 2006-2010 Stn. Yrs. | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | B.C. Peace 2006-2010 Stn. Yrs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agassiz | VG | 42 | a | 113 | 109 | [3] | 23 | a-d | 126 | 105 | [4] | 120 | 107 | [7] |
| APCM97107 | VG | 38 | a | 104 | 99 | [2] | 22 | a-d | 122 | 104 | [2] | 113 | 102 | [4] |
| *Argus* * | VG | 37 | a | 101 | 101 | [1] | 25 | abc | 136 | 136 | [1] | 118 | 118 | [2] |
| Canstar | VG | 39 | a | 104 | 107 | [4] | 25 | abc | 135 | 100 | [5] | 120 | 104 | [9] |
| CDC 1749-8 Δ | VG | 37 | a | 99 | 108 | [2] | 20 | a-e | 110 | 108 | [2] | 105 | 108 | [4] |
| *CDC 1897-14* Δ | VG | 35 | a | 95 | 95 | [1] | 16 | cde | 85 | 85 | [1] | 90 | 90 | [2] |
| CDC Centennial | VG | 36 | a | 96 | 100 | [4] | 12 | e | 67 | 89 | [5] | 82 | 95 | [9] |
| CDC Golden | VG | 38 | a | 102 | 96 | [4] | 18 | b-e | 98 | 96 | [5] | 100 | 96 | [9] |
| CDC Meadow | VG | 41 | a | 112 | 108 | [4] | 22 | a-d | 122 | 103 | [5] | 117 | 105 | [9] |
| CDC Prosper | VG | 38 | a | 104 | 101 | [2] | 20 | a-e | 109 | 100 | [3] | 106 | 101 | [5] |
| CDC Treasure | VG | 39 | a | 107 | 101 | [2] | 20 | a-e | 110 | 102 | [3] | 108 | 101 | [5] |
| **Cutlass** | VG | 37 | a | 100 | 100 | [4] | 18 | a-e | 100 | 100 | [5] | 100 | 100 | [9] |
| Hugo | VG | 34 | a | 93 | 104 | [2] | 14 | de | 78 | 98 | [3] | 86 | 101 | [5] |
| *MP1861* Δ | VG | 31 | a | 85 | 85 | [1] | 17 | b-e | 95 | 95 | [1] | 90 | 90 | [2] |
| *MP1864* Δ | VG | 38 | a | 104 | 104 | [1] | 27 | a | 149 | 149 | [1] | 126 | 126 | [2] |
| Polstead | VG | 38 | a | 103 | 105 | [4] | 26 | ab | 140 | 105 | [5] | 121 | 105 | [9] |
| *Stella* Δ | VG | 19 | b | 51 | 51 | [1] | 21 | a-e | 113 | 113 | [1] | 82 | 82 | [2] |
| SW MIDAS | VG | 31 | a | 84 | 97 | [4] | 16 | b-e | 90 | 87 | [5] | 87 | 92 | [9] |
| LSD (P=.05) = | | 6.83 | | | | | 5.17 | | | | | | | |
| CV value (%) = | | 13.41 | | | | | 15.33 | | | | | | | |

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

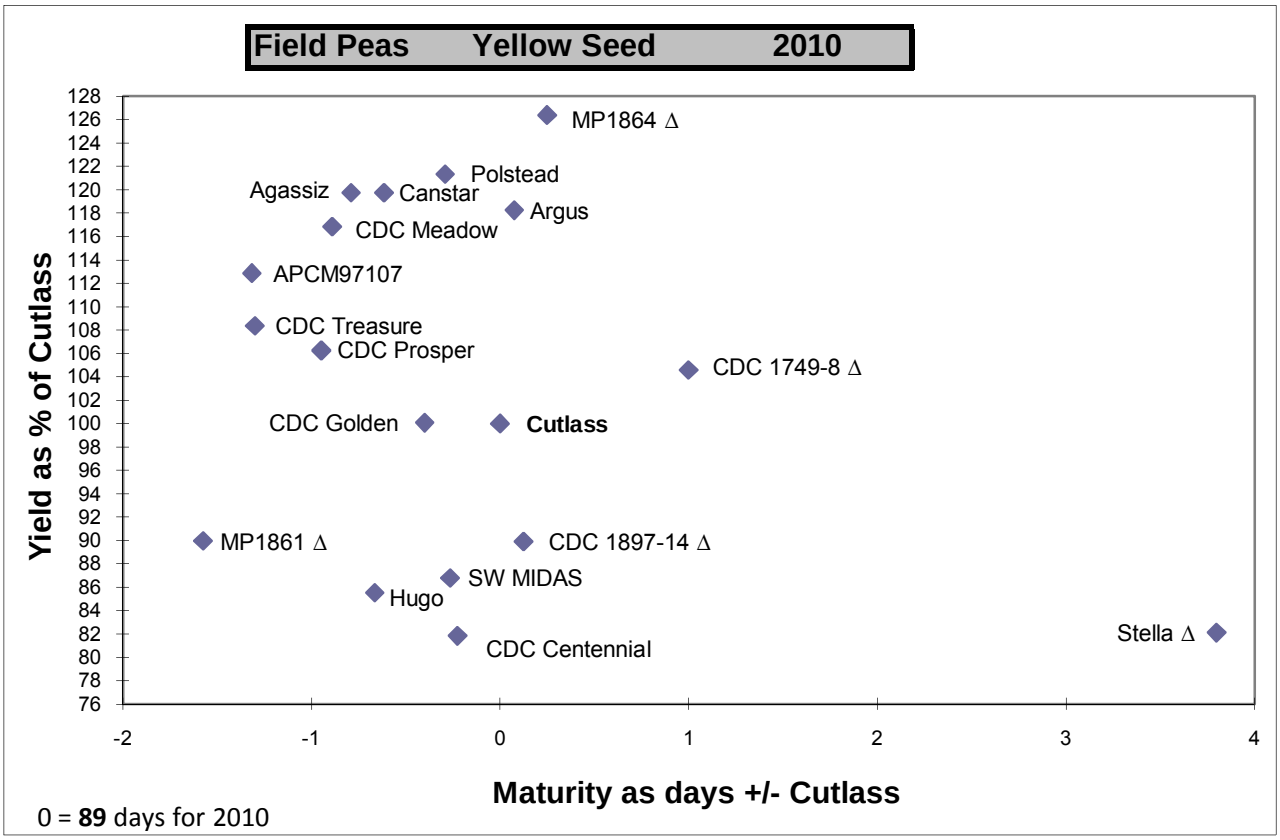
* first year tested, very limited data available.

**Powdery Mildew resistance: VG=Very Good, F=Fair, P=Poor (data: Alberta Agdex 100/32)

Δ denotes materials not registered, very limited data available

* first year tested, very limited data available

**Cutlass - check variety**



# Field Peas — Variety Descriptions

| Variety | Maturity as days +/- check | Vine Length cm | Lodging 1-9** | 1000 k grams | Distributor |
|---|---|---|---|---|---|
| | BC Peace Averages 2006-2010 | | | | |
| **Yellow Seed** | | | | | |
| ■ Agassiz | 0 | 61 | 2 | 244 | Canterra Seeds |
| APCM97107 | -4 | 56 | 9 | 248 | DL Seeds |
| ■ *Argus* * | 0 | 42 | 0 | 214 | SeCan |
| ■ Canstar | 0 | 59 | 2 | 259 | Canseed (Canada) Ltd. |
| CDC 1749-8 Δ | 2 | 55 | 1 | 232 | Sask Pulse Growers |
| *CDC 1897-14* Δ | 0 | 35 | 0 | 210 | Sask Pulse Growers |
| CDC Centennial | 1 | 44 | 4 | 279 | Sask Pulse Growers |
| CDC Golden | -2 | 55 | 1 | 229 | Sask Pulse Growers |
| CDC Meadow | -1 | 62 | 2 | 219 | Sask Pulse Growers |
| CDC Prosper | -2 | 50 | 1 | 159 | Sask Pulse Growers |
| CDC Treasure | -2 | 57 | 1 | 223 | Sask Pulse Growers |
| **Cutlass** | 0 | 55 | 3 | 240 | Sask Pulse Growers |
| ■ Hugo | 1 | 39 | 2 | 238 | Alliance Seed Corp. |
| *MP1861* Δ | -2 | 32 | 0 | 254 | AAFC-Lacombe |
| *MP1864* Δ | 0 | 47 | 0 | 217 | AAFC-Lacombe |
| ■ Polstead | 2 | 47 | 2 | 273 | FP Genetics |
| ■ *Stella* Δ | 4 | 50 | 0 | 239 | Alliance Seed Corp. |
| ■ SW MIDAS | -1 | 54 | 2 | 217 | FP Genetics |
| **Green Seed** | | | | | |
| ■ Camry | -8 | 43 | 1 | 257 | FP Genetics |
| *CDC 1932-201* Δ | -1 | 33 | 0 | 193 | Sask Pulse Growers |
| CDC Patrick | -3 | 58 | 1 | 198 | Sask Pulse Growers |
| CDC Striker | -9 | 58 | 1 | 238 | Sask Pulse Growers |
| ■ **Cooper** | 0 | 60 | 2 | 287 | Canterra Seeds |
| Cutlass | -6 | 49 | 2 | 232 | Sask Pulse Growers |
| ■ Mendel | -4 | 63 | 1 | 235 | Alliance Seed Corp. |
| *MP1867* Δ | -2 | 46 | 0 | 230 | AAFC-Lacombe |
| ■ Nitouche | -7 | 62 | 2 | 274 | FP Genetics |

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

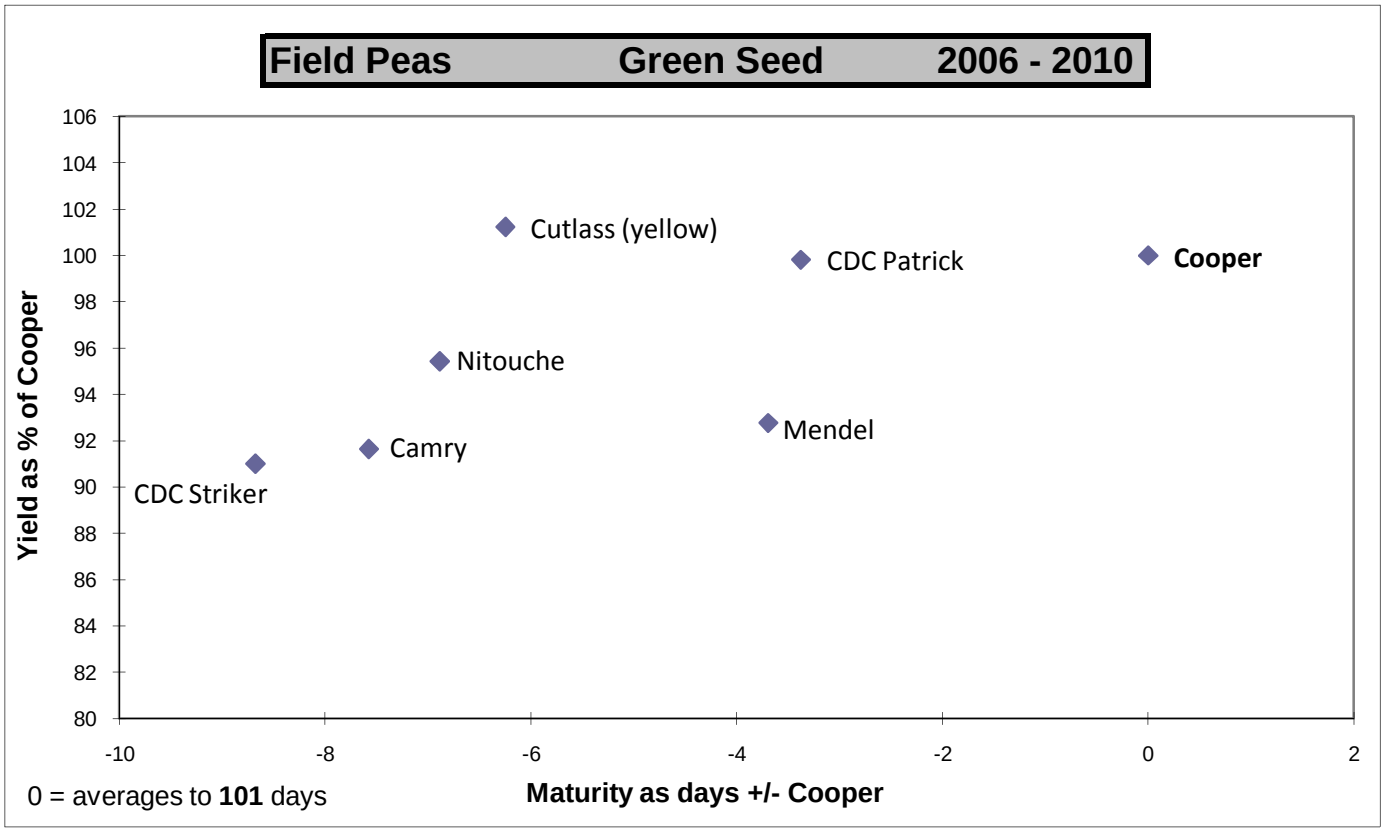
Lodging data is becoming important criteria when selecting peas for our area, as peas still standing at harvest stand a better chance of escaping ecretia contamination from large wildlife, especially if harvested as direct-cut. Note that due to variability of lodging, numbers averaged tend to be lower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

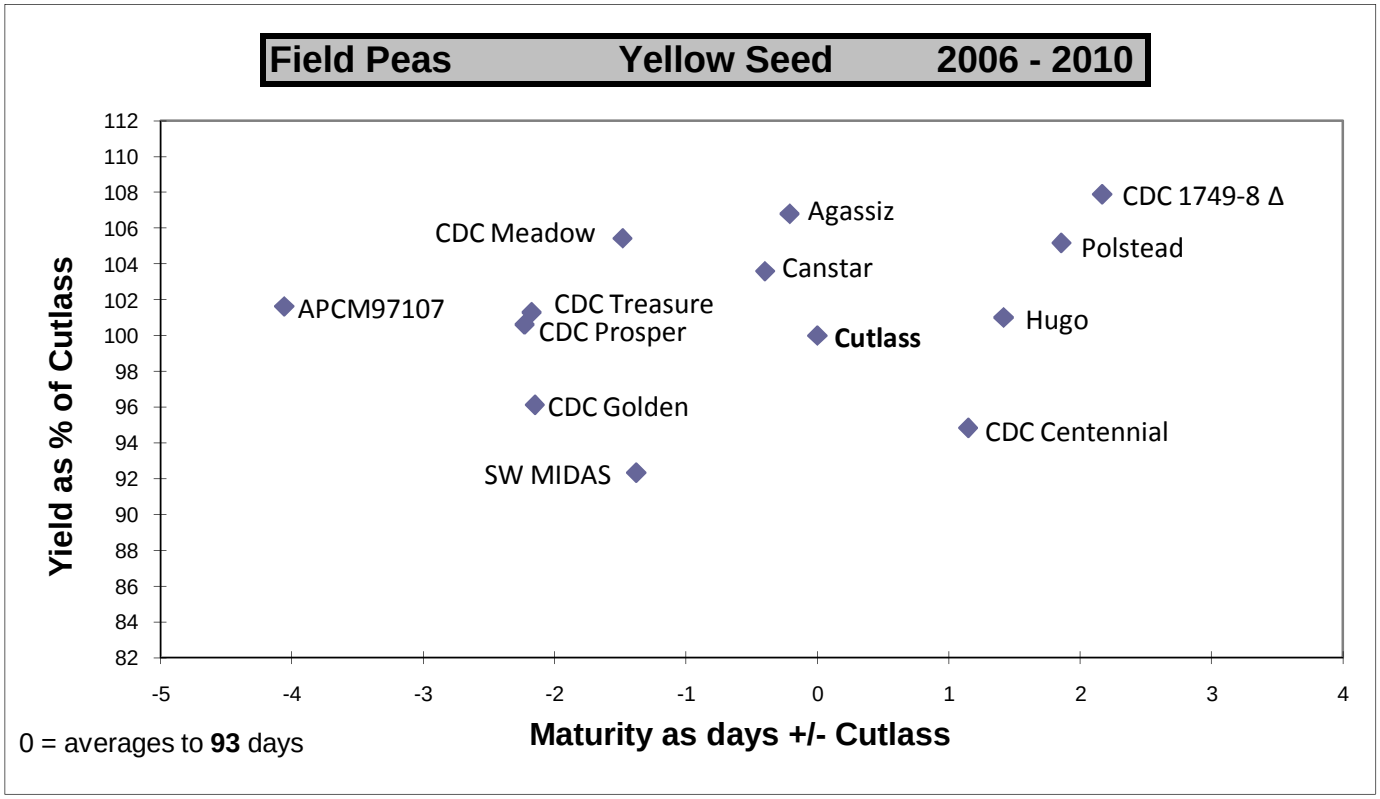
Overall average maturity for **Cutlass** is **93** days, and **101** days for **Cooper**

■ Protected by Plant Breeders' Rights

Δ denotes materials not registered, very limited data available
* first year tested, very limited data available

** 1 - 9 scale; 1 = none, 9 = 100% affected


Field Peas Green Seed 2006 - 2010
Yield as % of Cooper
106
104
102
100
98
96
94
92
90
88
86
84
82
80
-10
-8
-6
-4
-2
0
2
Cutlass (yellow)
CDC Patrick
Cooper
Nitouche
Mendel
Camry
CDC Striker
0 = averages to 101 days
Maturity as days +/- Cooper


Field Peas Yellow Seed 2006 - 2010
Yield as % of Cutlass
112
110
108
106
104
102
100
98
96
94
92
90
88
86
84
82
-5
-4
-3
-2
-1
0
1
2
3
4
CDC 1749-8 Δ
Agassiz
CDC Meadow
Polstead
Canstar
APCM97107
CDC Treasure
CDC Prosper
Hugo
Cutlass
CDC Golden
CDC Centennial
SW MIDAS
0 = averages to 93 days
Maturity as days +/- Cutlass

# FLAX

Fields of flax have been successfully grown in our region for many years, however growing flax in the B.C. Peace River region is still at present a risky venture. Large acreage should be discouraged until further breeding programs have resulted in earlier maturing varieties. The B.C. Grain Producers Association is looking into the development of earlier maturing varieties as well as frost-tolerant lines that can be planted earlier than traditionally. For this reason this information is being provided here. It has become apparent that it is **very important to plant flax as early as possible** (as advised by Dr. Paul Dribnenki, Viterra flax breeder)**.** This seems to prevent flower abortion in heat and reduces reflowering in August. In the end this helps to delivers a more consistant and earlier maturation of the seed.

## Flax — Yield as % of NorLin

| Variety | Dawson Creek 2010 Yield bus / acre | | % of Check | Dawson Creek 2006-2010 Avg. (%) | stn yrs | Fort St. John 2010 Yield bus / acre | % of Check | Fort St. John 2006-2009 Avg. (%) | stn yrs | B.C. Peace 2010 Avg. (%) | B.C. Peace 2006-2010 Avg. (%) | stn yrs | Variety Descriptions Maturity days +/- check | Height (cm) | Distributor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ CDC Bethune | 14 | b | 96 | 100 | [4] | | | 90 | [3] | 96 | 95 | [7] | 4 | 49 | SeCan |
| ■ CDC Sanctuary | 17 | a | 119 | 122 | [2] | | | 110 | [1] | 119 | 116 | [3] | 5 | 51 | SeCan |
| Flanders | 14 | b | 96 | 97 | [4] | | | 92 | [3] | 96 | 95 | [7] | 6 | 46 | SeCan |
| ■ *FP2214* * | 13 | b | 88 | 88 | [1] | | | 0 | [0] | 87.9 | 0 | [1] | 0 | 47 | Alliance Seed Corp. |
| ■ Hanley | 13 | b | 92 | 93 | [4] | | | 92 | [3] | 91.6 | 93 | [7] | 6 | 45 | SeCan |
| NorLin | 14 | b | 100 | 100 | [4] | | | 100 | [3] | 100 | 100 | [7] | 0 | 48 | SeCan |
| ■ Prairie Blue | 15 | b | 103 | 108 | [2] | | | 100 | [1] | 103 | 104 | [3] | 3 | 50 | SeCan |
| ■ Prairie Grande | 15 | b | 102 | 103 | [4] | | | 102 | [3] | 102 | 102 | [7] | 0 | 44 | SeCan |
| ■ Prairie Thunder | 14 | b | 100 | 103 | [4] | | | 107 | [3] | 99.6 | 105 | [7] | -1 | 44 | Canterra Seeds |
| LSD (P=.05) = | 1.69 | | | | | | | | | | | | | | |
| CV value (%) = | 8.14 | | | | | | | | | | | | | | |

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

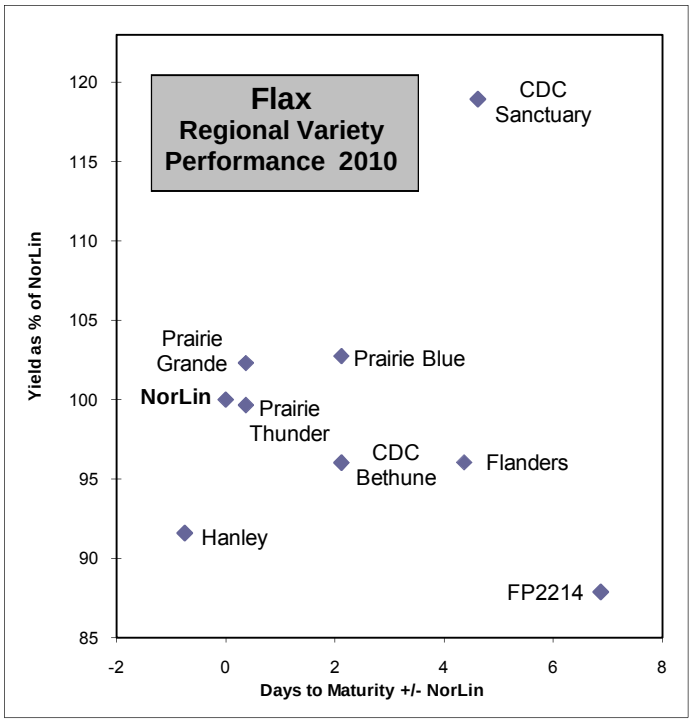
**NorLin - check variety**

Δ denotes materials not registered, very limited data available

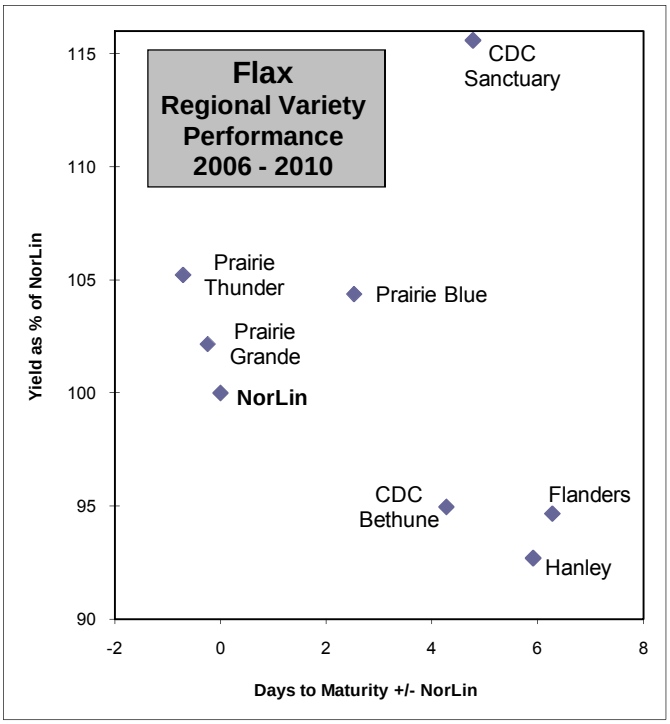
■ Protected by Plant Breeders' Rights

* first year tested, very limited data available

Trial at FSJ site 2010 failed statistically due to drought so not included




2010 maturity for **NorLin** is **107** days.




Overall average maturity for **NorLin** is **112** days.

## Summary of 2010 Trials

Data used directly for the production of this report…

| Regional Variety Trials | Site | Varieties | Replicates | Plots | Source |
|---|---|---|---|---|---|
| Regional 2 Row Barley | DC | 24 | 4 | 96 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional 6 Row Barley | DC | 12 | 4 | 48 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Oats | DC | 12 | 4 | 48 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional CWRS Wheat (HRSW) | DC | 30 | 4 | 120 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional CPS / CWES Wheat | DC | 15 | 4 | 60 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Durum Wheat | DC | 6 | 4 | 24 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Triticale | DC | 7 | 4 | 28 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| BCGPA Napus NS1 Comparison | DC | 21 | 4 | 84 | BCGPA Research Department ** |
| BCGPA Napus NS2 Comparison | DC | 21 | 4 | 84 | BCGPA Research Department ** |
| Regional Flax | DC | 9 | 4 | 36 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Green Field Pea | DC | 9 | 4 | 36 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Yellow Field Pea | DC | 18 | 4 | 72 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| | | | | | |
| Regional 2 Row Barley | FSJ | 24 | 4 | 96 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional 6 Row Barley | FSJ | 12 | 4 | 48 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Oats | FSJ | 12 | 4 | 48 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional CWRS Wheat (HRSW) | FSJ | 30 | 4 | 120 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional CPS / CWES Wheat | FSJ | 15 | 4 | 60 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Durum Wheat | FSJ | 6 | 4 | 24 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Triticale | FSJ | 7 | 4 | 28 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| BCGPA Napus NS1 Comparison | FSJ | 13 | 4 | 52 | BCGPA Research Department ** |
| BCGPA Napus NS2 Comparison | FSJ | 13 | 4 | 52 | BCGPA Research Department ** |
| Regional Flax | FSJ | 9 | 4 | 36 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Green Field Pea | FSJ | 9 | 4 | 36 | Gayah Sieusahai - ARECA - Edmonton, AB * |
| Regional Yellow Field Pea | FSJ | 18 | 4 | 72 | Gayah Sieusahai - ARECA - Edmonton, AB * |

* some entries sourced by BCGPA directly ** all entries sourced by BCGPA directly or their inclusion requested by local agri-business

Data used for *plant breeding* and *variety registration* support, thus support for future new materials for future reports…

| Varietal Development | Site | Varieties | Replicates | Plots | Source |
|---|---|---|---|---|---|
| Ag Canada - Rapa Combined Co-op (Pub&Priv) | DC | 11 | 4 | 44 | Dr. Kevin Falk, AAFC - Saskatoon |
| Ag Canada - Rapa Combined Co-op (Pub&Priv) | FSJ | 11 | 4 | 44 | Dr. Kevin Falk, AAFC - Saskatoon |
| B-Y51 Barley Grain Pre-Co-op (Pat) | DC | 25 | 3 | 75 | Dr. Joseph M Nyachiro / Dr. Patricia Juskiw |
| B-S51 Barley Silage Pre-Co-op (Pat) | DC | 25 | 3 | 75 | AAFRD Lacombe |
| Barley 2-Row Western Co-op | DC | 26 | 3 | 78 | Dr. Aaron Beattie - U of S Malt Barley Program |
| Barley 6-row Western Co-op | DC | 26 | 3 | 78 | Dr. Mario Therrien - AAFC Brandon |
| BayerCropS. Flea-Beatle Foliar Treatment | DC | 10 | 4 | 40 | Bayer CropScience |
| BayerCropS. Flea-Beatle Seed Tretatment | DC | 11 | 4 | 44 | Bayer CropScience |
| BayerCropS. Flea-Beatle Foliar Treatment | FSJ | 10 | 4 | 40 | Bayer CropScience |
| BayerCropS. Flea-Beatle Seed Tretatment | FSJ | 11 | 4 | 44 | Bayer CropScience |
| Canola Council of Canada Napus NS1 Co-op | DC | 30 | 4 | 120 | Raymond Gadoua - Canola Council of Can. |
| Canola Council of Canada Napus NS2 Co-op | DC | 30 | 4 | 120 | Raymond Gadoua - Canola Council of Can. |
| Canola Council of Canada Napus NS3 Co-op | DC | 26 | 3 | 78 | Raymond Gadoua - Canola Council of Can. |
| Camelina 502 Co-op | DC | 15 | 4 | 60 | Dr. Kevin Falk/Ryan Vetter, AAFC-Saskatoon |
| Camelina 502 Co-op | FSJ | 15 | 4 | 60 | Dr. Kevin Falk/Ryan Vetter, AAFC-Saskatoon |
| Cereal Rust plots (individual plots) | DC | 3 | 1 | 3 | Dr. Tom Fetch - Ag Canada, Winnipeg |
| Dry Bean Adaptation Demo | DC | 9 | 4 | 36 | Dr. Parthiba Balasubramanian - AAFC Lethr. |
| Dry Bean Adaptation Demo | FSJ | 9 | 4 | 36 | Dr. Parthiba Balasubramanian - AAFC Lethr. |
| Ag Canada/BCGPA Early Flax Co-op | DC | 36 | 3 | 108 | Dr. Scott Duguid - MRC Morden |
| Ag Canada/BCGPA Early Flax Co-op | FSJ | 36 | 3 | 108 | Dr. Scott Duguid - MRC Morden |
| Ag Canada Flax CFET-A Co-op | DC | 36 | 3 | 108 | Dr. Scott Duguid - MRC Morden |
| Ag Canada Flax Prelim-A Co-op | FSJ | 36 | 3 | 108 | Dr. Scott Duguid - MRC Morden |
| Ag Canada Flax Prelim-A Co-op | DC | 36 | 3 | 108 | Dr. Scott Duguid - MRC Morden |

…Varietal Development table continued next page

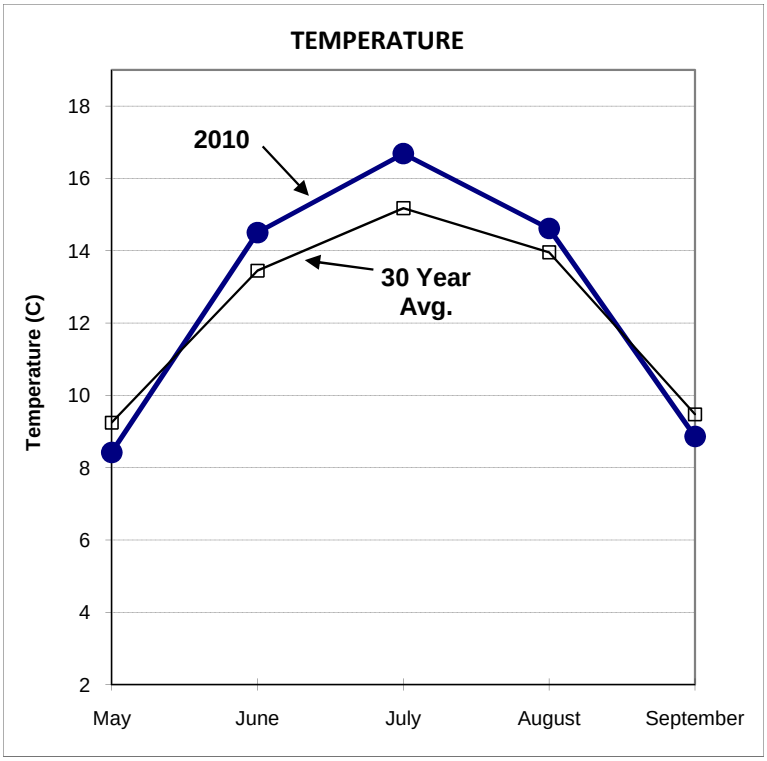
| Varietal Development *continued ...* | Site | Varieties | Replicates | Plots | Source |
|---|---|---|---|---|---|
| Early Wheat CBW-A2 (3m plots) | FSJ | 42 | 2 | 84 | Dr. Gavin Humphreys / Dr. Steven Fox - AAFC Winnipeg |
| Early Wheat Parkland 'A1' (3m plots) | FSJ | 81 | 2 | 162 | |
| Early Wheat Parkland 'A2' (3m plots) | FSJ | 90 | 2 | 180 | |
| Early Wheat PRDHF (3m plots) | FSJ | 144 | 1 | 144 | |
| Early Wheat PRDHFW (3m plots) | FSJ | 120 | 1 | 120 | |
| Early Wheat PRDH2 (3m plots) | FSJ | 100 | 1 | 100 | |
| Ethanol Feedstocks-B Private (BCGPA) | DC | 28 | 4 | 112 | BCGPA/Humphreys/Brown/Fox/Depauw |
| Ethanol Feedstocks-B Private (BCGPA) | FSJ | 28 | 4 | 112 | BCGPA/Humphreys/Brown/Fox/Depauw |
| Field Pea Co-op "A" | FSJ | 36 | 3 | 108 | Dr. Dengjin Bing - AAFC Lacombe |
| Field Pea Co-op "B" | FSJ | 36 | 3 | 108 | Dr. Dengjin Bing - AAFC Lacombe |
| Hard White Spring Wheat Co-op | DC | 25 | 3 | 75 | Dr. Ron DePauw - AAFC Swift Current |
| Hard White Spring Wheat Co-op | FSJ | 25 | 3 | 75 | Dr. Ron DePauw - AAFC Swift Current |
| IPNI - Avail® in-furrow Fertilizer Trial | DC | 9 | 4 | 36 | Tom Jensen - IPNI |
| IPNI - Nutrisphere® deep-band Fert | DC | 13 | 4 | 52 | Tom Jensen - IPNI |
| Oat Advantage® - Co-op B | DC | 24 | 2 | 48 | Jim Dyck- Advantage Seeds |
| Oat - F4YT- Private Co-op | DC | 30 | 2 | 60 | Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg |
| Oat - WCORT Co-op | DC | 28 | 3 | 84 | Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg |
| Oat - Regional Advanced Oat Co-op (RAT) | DC | 36 | 3 | 108 | Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg |
| Oat - Western Prairie Advanced Oat (WPAT) | DC | 36 | 3 | 108 | Dr. Jennifer Mitchell-Fetch - AAFC Winnipeg |
| Peace Region Field Pea (PYT01) Trial | FSJ | 36 | 2 | 72 | Dr. Dengjin Bing - AAFC Lacombe |
| Peace Region Field Pea (PYT02) Trial | FSJ | 36 | 2 | 72 | Dr. Dengjin Bing - AAFC Lacombe |
| Parkland 'C' Wheat Co-op | DC | 30 | 3 | 90 | Alanna Olson - AAFC Beaverlodge |
| Parkland 'C' Wheat Co-op | FSJ | 30 | 3 | 90 | Alanna Olson - AAFC Beaverlodge |
| Parkland 'B' Wheat Co-op | FSJ | 25 | 3 | 75 | Dr. Dean M. Spaner - U of Alberta |
| PRFSA - forage seed plots (S. Burton) | FSJ | 25 | 4 | 100 | Sandra Burton - PRFSA |
| T-Y51Triticale Grain Pre-Co-op | DC | 22 | 3 | 66 | Dr. Don Salmon - AAFRD Lacombe, AB |
| T-Y52 Triticale Grain Pre-Co-op | FSJ | 22 | 3 | 66 | Dr. Don Salmon - AAFRD Lacombe, AB |
| T-S51Triticale Silage | DC | 22 | 3 | 66 | Dr. Don Salmon - AAFRD Lacombe, AB |
| VITERRA Napus Herbicide Systems Trial | DC | 23 | 3 | 69 | Tim Ferguson - Viterra |
| VITERRA Wheat Marketing | DC | 23 | 3 | 69 | Jim Anderson - Viterra |
| VITERRA Oat Performance/Seed Increase | DC | 8 | 3 | 24 | Jim Anderson - Viterra |
| VITERRA Juncea (XCEED) Trial | DC | 6 | 3 | 18 | Tim Ferguson - Viterra |

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

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

**Sources:**
AAFRD = Alberta Agriculture, Food and Rural Development
AAFC = Agriculture and Agri-Food Canada
ARECA = Agricultural Research and Extension Council of Alberta
MRC = Morden Research Centre, Agriculture & Agrifood Canada, Morden, Manitoba
UofS = University of Saskatchewan, Saskatoon, Saskatchewan
BCGPA = British Columbia Grain Producers Association

# Dawson Creek Weather Information 2010




**TEMPERATURE**

| Month | Monthly Avg. Temp. (C) | Temp.* 30 year Avg. (C) |
|---|---|---|
| May | 8 | 9 |
| June | 15 | 13 |
| July | 17 | 15 |
| August | 15 | 14 |
| September | 9 | 9 |

**Frost Events:** **-3.2 May 11** -1.3 Sept 14
-1.4 May 14 **-4.0 Sept 16**

**Killing Frost (-2.2 C) Free Period: 128 days**
May 11 to Sept 16

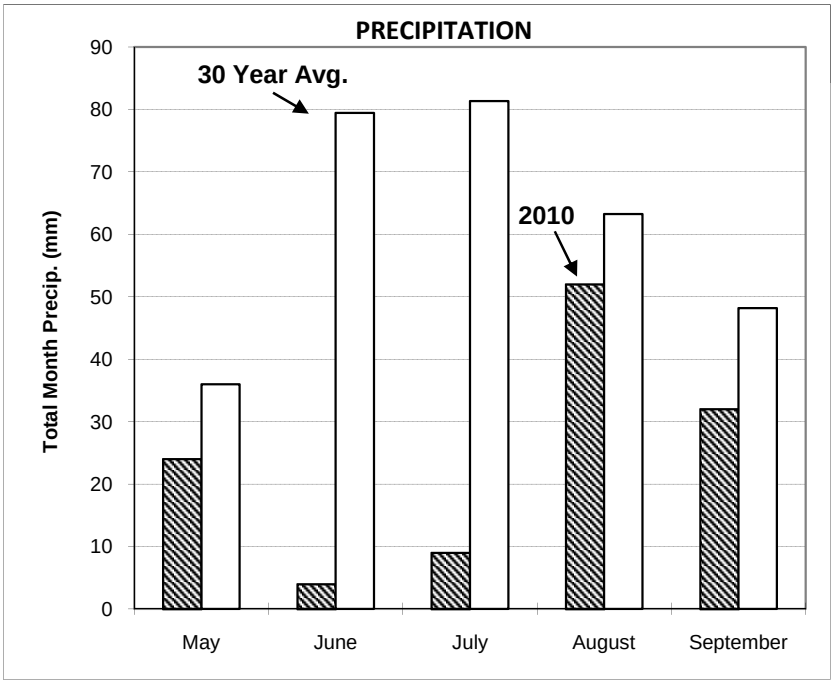
**Accumulated Growing Degree Days:**
**2010:** 1142
1994-2010 Average: 1165

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

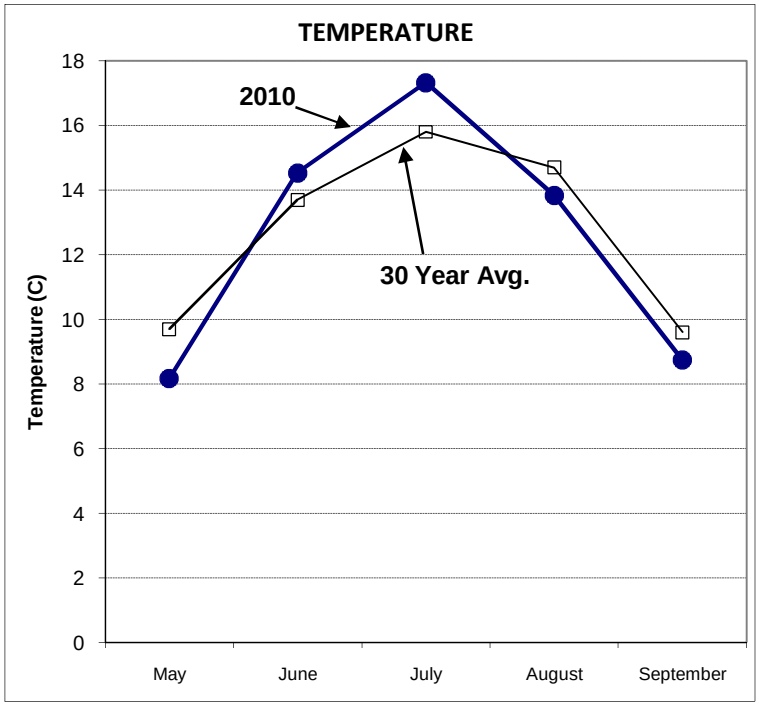
**PRECIPITATION**

| Month | Monthly Precipitation (mm) | Precipitation * 30 year Avg. (mm) |
|---|---|---|
| May | 24 | 36 |
| June | 4 | 79 |
| July | 9 | 81 |
| August | 52 | 63 |
| September | 32 | 48 |

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

# Fort St. John Weather Information 2010




**TEMPERATURE**

| Month | Monthly Avg. Temp. (C) | Temp.* 30 year Avg. (C) |
|---|---|---|
| May | 8 | 10 |
| June | 15 | 14 |
| July | 17 | 16 |
| August | 14 | 15 |
| September | 9 | 10 |

**Frost Events:** **-3.0 May 8** -1 Sept 14
-1.4 May 10 **-5.2 Sept 17**

**Killing Frost (-2.2 C) Free Period: 132**
May 8 to September 17

**Accumulated Growing Degree Days:**
**2010: 1124**
1994-2010 Average: 1152

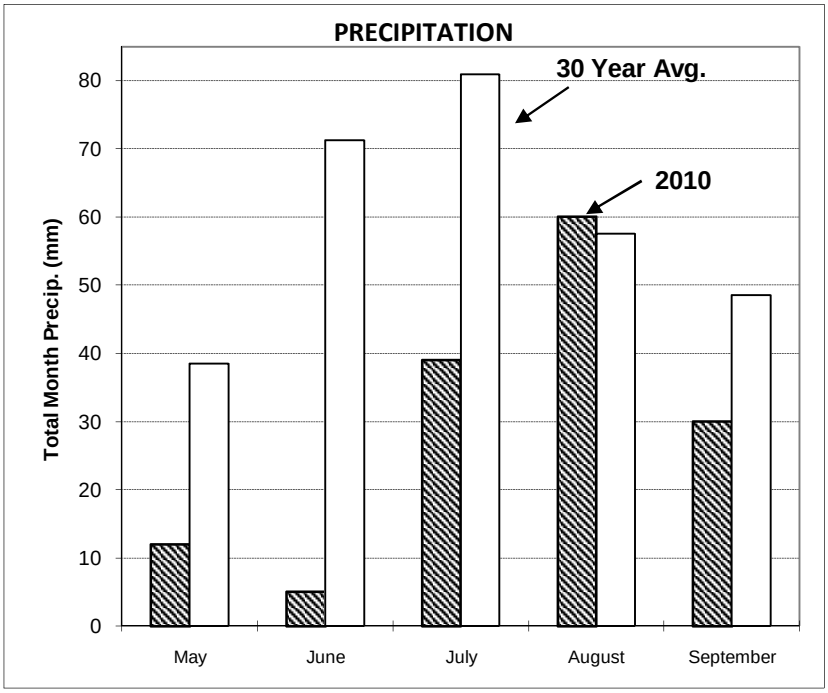
* 30 year average FSJ from 1968-1997
source: Environment CANADA

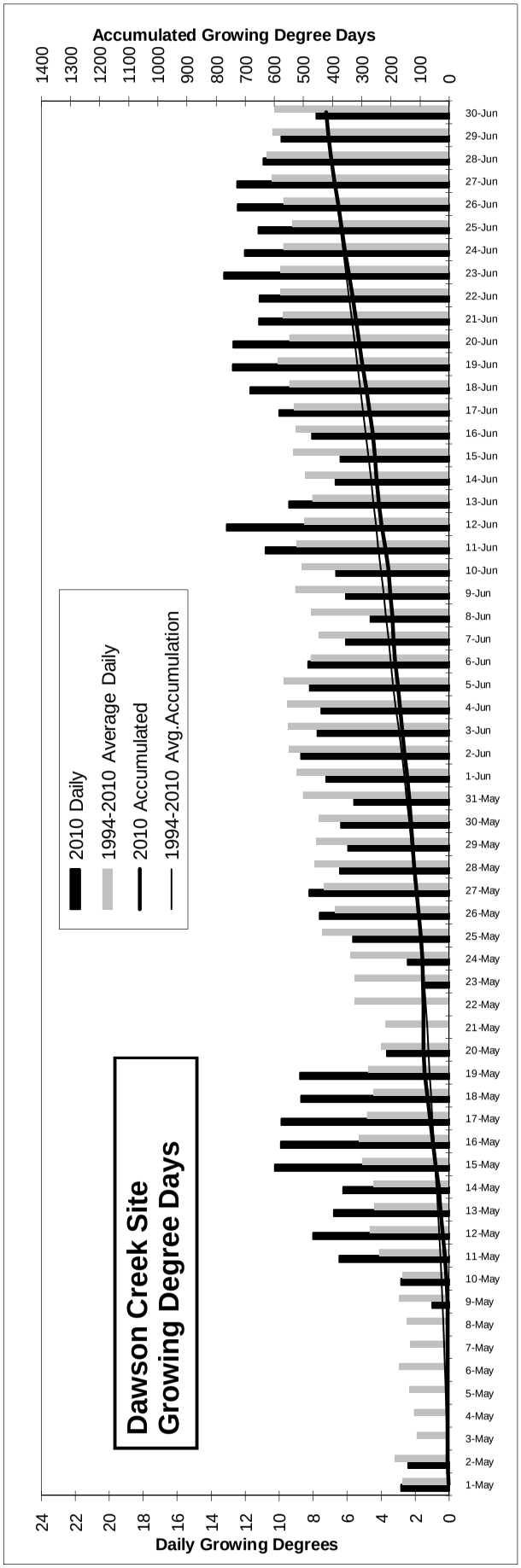
**PRECIPITATION**

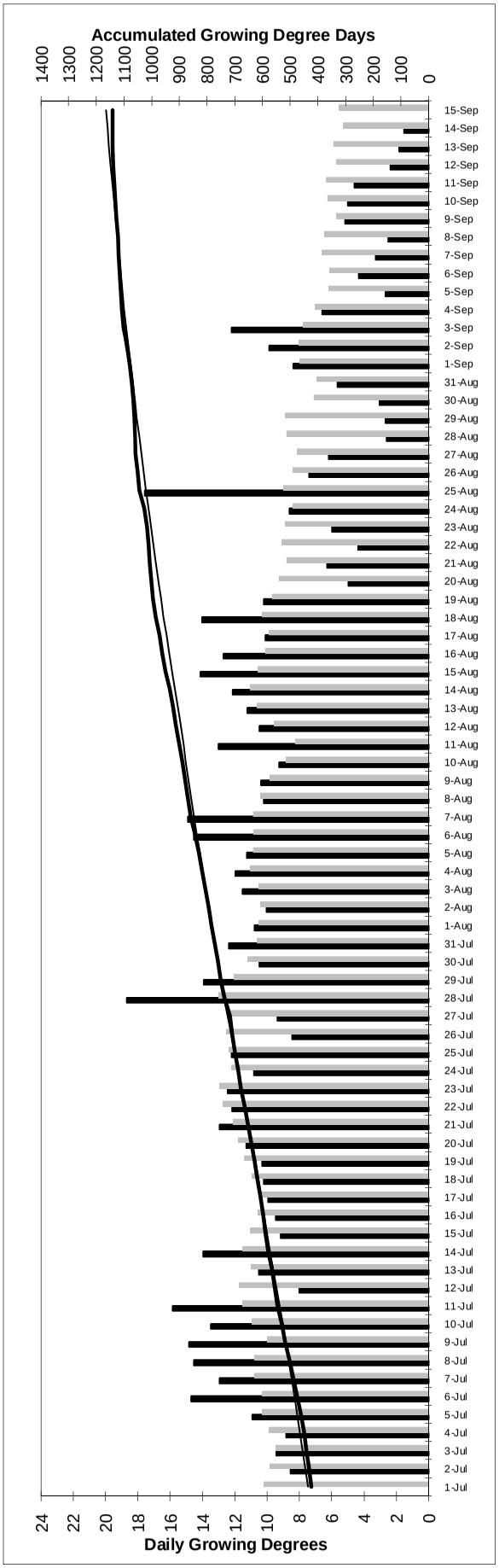
| Month | Monthly Precipitation (mm) | Precipitation * 30 year Avg. (mm) |
|---|---|---|
| May | 12 | 39 |
| June | 5 | 71 |
| July | 39 | 81 |
| August | 60 | 58 |
| September | 30 | 49 |

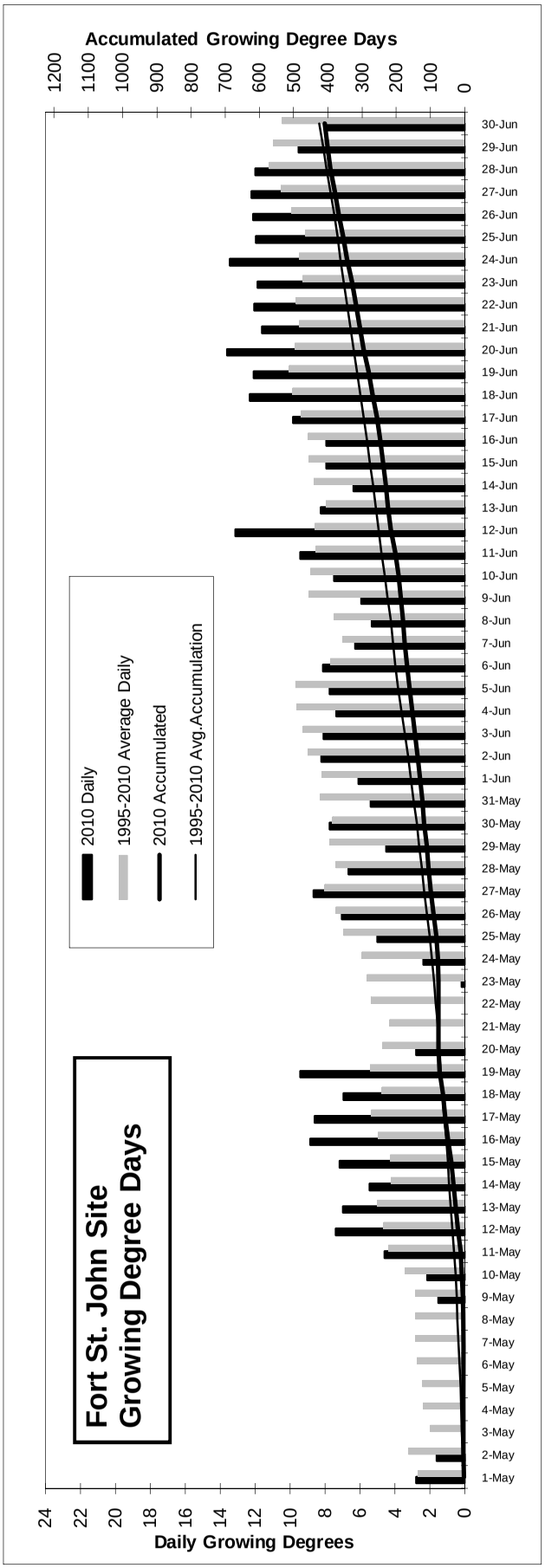
Data is provided by an on site weather station maintained by the Agriculture Risk Management Branch of the BC Ministry of Agriculture and Lands.

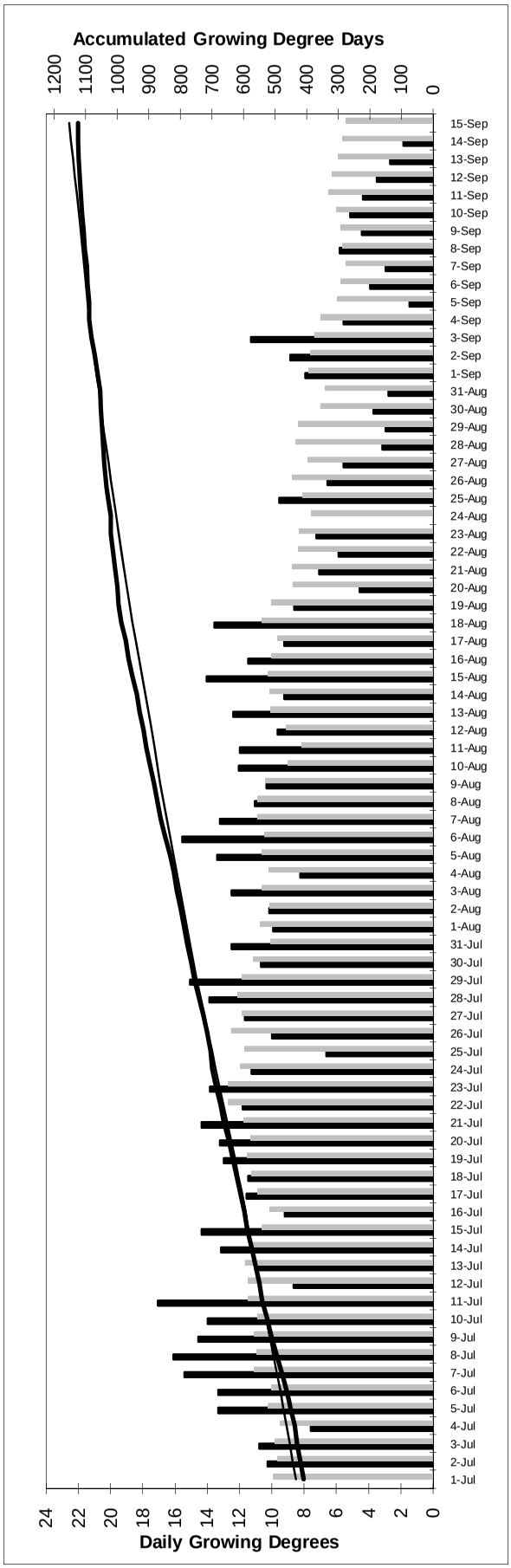
Production INSURANCE for British Columbia




Dawson Creek Site
Growing Degree Days
2010 Daily
1994-2010 Average Daily
2010 Accumulated
1994-2010 Avg.Accumulation
Accumulated Growing Degree Days
Daily Growing Degrees


Accumulated Growing Degree Days
Daily Growing Degrees


Accumulated Growing Degree Days
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
30-Jun
29-Jun
28-Jun
27-Jun
26-Jun
25-Jun
24-Jun
23-Jun
22-Jun
21-Jun
20-Jun
19-Jun
18-Jun
17-Jun
16-Jun
15-Jun
14-Jun
13-Jun
12-Jun
11-Jun
10-Jun
9-Jun
8-Jun
7-Jun
6-Jun
5-Jun
4-Jun
3-Jun
2-Jun
1-Jun
31-May
30-May
29-May
28-May
27-May
26-May
25-May
24-May
23-May
22-May
21-May
20-May
19-May
18-May
17-May
16-May
15-May
14-May
13-May
12-May
11-May
10-May
9-May
8-May
7-May
6-May
5-May
4-May
3-May
2-May
1-May
2010 Daily
1995-2010 Average Daily
2010 Accumulated
1995-2010 Avg.Accumulation
Fort St. John Site
Growing Degree Days
24
22
20
18
16
14
12
10
8
6
4
2
0
Daily Growing Degrees


Accumulated Growing Degree Days
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
15-Sep
14-Sep
13-Sep
12-Sep
11-Sep
10-Sep
9-Sep
8-Sep
7-Sep
6-Sep
5-Sep
4-Sep
3-Sep
2-Sep
1-Sep
31-Aug
30-Aug
29-Aug
28-Aug
27-Aug
26-Aug
25-Aug
24-Aug
23-Aug
22-Aug
21-Aug
20-Aug
19-Aug
18-Aug
17-Aug
16-Aug
15-Aug
14-Aug
13-Aug
12-Aug
11-Aug
10-Aug
9-Aug
8-Aug
7-Aug
6-Aug
5-Aug
4-Aug
3-Aug
2-Aug
1-Aug
31-Jul
30-Jul
29-Jul
28-Jul
27-Jul
26-Jul
25-Jul
24-Jul
23-Jul
22-Jul
21-Jul
20-Jul
19-Jul
18-Jul
17-Jul
16-Jul
15-Jul
14-Jul
13-Jul
12-Jul
11-Jul
10-Jul
9-Jul
8-Jul
7-Jul
6-Jul
5-Jul
4-Jul
3-Jul
2-Jul
1-Jul
24
22
20
18
16
14
12
10
8
6
4
2
0
Daily Growing Degrees

# List of Certified Seed Distributors

**Alliance Seed Corp.**
**c/o Parrish & Heimbecker** 2149 Imperial Access Rd.
Dawson Creek Toll-Free:1-800-315-6336
www.allianceseed.com
www.parrishandheimbecker.com

**Bayer CropScience Inc. Canada**
#100, 3131-114 Ave. SE Calgary, AB T2Z 3X2
Toll-Free :1(888) 283-6847
Phone:(403) 723-7400
www.bayercropscience.ca

**Brett - Young Seeds Ltd.**
P.O. Box 99, St. Norbert Postal Station,
Winnipeg, MB R3V 1L5
Toll-Free: 1(800) 665-5015
www.brettyoung.ca

**Canseed Ltd.**
R.R. #1, Box 1155 Stettler, AB T0C 2L0
Phone: (403)742-4091
Fax: (403)742-0621

**Canterra Seeds Ltd.**
201-1475 Chevier Blvd.
Winnipeg, MB R3T 1Y7
Phone: (204) 988-9750
Fax:(204) 487-7682
www.canterra.com

**Cargill Ltd.**
P.O. Box 5900 300-240 Graham Avenue
Winnipeg, MB R3C4C5
Phone:(204) 947-0141
Fax:(204) 947-6444
www.cargill.ca

**DEKALB (Monsanto Canada Inc.)**
900 - 1 Research Road
Winnipeg, MB Canada R3T 6E3
Toll Free: 1(800) 667-4944
www.dekalb.ca

**DL Seeds**
P.O. Box 2499 Morden, MB R6M 1C2
Phone: (204) 331-2361
Fax:(204) 325-8052
www.dlseeds.ca

**DuPont Canada**
Regional Sales & Marketing Business Development Center
1015 – 4th Street S.W. Calgary, AB T2R 1J4
Phone: (403) 698-8536
Fax: (403) 697-6230
www.dupont.com

**Faurschou Farms Ltd.**
S.E. 12-12-8 W1 Portage LaPrairie, MB R1N 3A4
Toll-Free: 1(888) 453-6530
Phone: (204) 274-2159

**FP Genetics**
426 McDonald Street
Regina, SK S4N 6E1
Toll Free: 1(877) 791-1045
Fax: 1(877) 791-1046
www.fpgenetics.ca

**Haney Farms Ltd.**
Box 280 Picture Butte, AB T0K 1V0
Toll Free: 1(877) 738-4517
Phone: (403) 738-4517
Email: office@haneyfarms.com

**Mastin Seeds**
RR #1 Sundre, AB T0M 0X0
Phone:(403) 556-2609
Fax: (403) 507-2609
www.mastinseeds.com

**Monsanto Canada Inc**
900 - 1 Research Road
Winnipeg, MB R3T 6E3
Toll-Free:1(800) 667-4944
Phone: (204) 985-1000
www.monsanto.ca

**Pioneer Hi-Bred Ltd.**
P.O. Box 730, 7398 Queen's Line
Chatham, ON N7M 5L1
Phone: (519)-352-6350
www.pioneer.com/canada

**Saskatchewan Pulse Growers**
104 - 411 Downey Road
Saskatoon, SK S7N 4L8
Phone: (306) 668-5556
Fax: (306) 668-5557
www.saskpulse.com

**SeCan Association**
501-300 March Road Kanata, ON K2K 2E2
Toll-Free:1(800) 764-5487
Phone: (613) 592-8600
www.secan.com

**Seed Depot Corp.**
P.O. Box 208 Pilot Mound, MB R0G 1P0
Phone: (204) 825-2000
www.seeddepot.ca

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

**Syngenta Seeds Canada Inc.**
15910 Medway Road,
RR 1 Arva, ON N0M 1C0
Toll-Free:1(800) 756-7333
www.nkseed.com
www.syngenta.ca

**Viterra**
CanWest Global Place
201 Portage Avenue P.O. Box 6600
Winnipeg, MB R3C 3A7
Toll Free:1-866-569-4411
Fax: 1-866-310-4156
Dawson Creek Phone:250-782-9264
Fort St.John Phone:250-785-3445
www.viterra.ca

**B.C. Grain Producers Association's new research facility**

The B.C. Grain Producers Association opened their new building for business in early November, 2009, and had its official Grand Opening on June 23rd, 2010 with local dignitaries and numerous guests from some the association's major funding agencies over the past twenty years of conducting field crop research. The structure is newly constructed with adaptability in mind, but with much forethought to meeting the needs of the Research Department and Directors alike.

The main floor contains the Research Department and the top floor contains a spacious and much needed conference room with an adjacent single large office. Besides a separate washroom, there is a food service area within the conference room. The main floor houses offices for the research staff, two labs, and a spacious warehouse for the research department's growing workload. One of the labs is designed specifically for seed handling in the spring, complete with proper vacuumed ventilation for working with treated seed over the precision scales. The other lab is designed for the proper handling of harvested materials, complete with double doors and unfinished floor for the movement of pallets to and from that particular lab room. "It has been a real joy to come to work and work in such a beautiful and well-planned facility. It has made getting the work done so much more efficient and it has increased the camaraderie within the work-force itself as staff no longer have to bump elbows to get their work done" says the current staff at the facility. Clearly this new building will help the B.C. Grain Producers Association maintain their tradition and reputation for high quality field research.

The conference room is available for rent by the agriculture industry. See www.bcgrain.com for more information and to download the rental agreement.