

# Varieties of grain crops 1998



Saskatchewan  
Agriculture  
and Food

## Crop Production Areas

The cropland of Saskatchewan has been divided into four areas based roughly on climate, vegetation and soil type. The relative yields of crop varieties tend to vary from area to area. In choosing a variety farmers will want to consider the yields in their area and special requirements such as early maturity, disease resistance or sawfly resistance.

**Area 1:** Drought is a definite hazard and high winds are common. Sawfly outbreaks often occur in this area. Cereal rust may be a problem in the southeastern section.

**Area 2:** Drought and sawflies may be problems in the western and central sections of the area. Cereal rust may be a problem in the southeastern section.

**Area 3:** Drought is not as likely to be a problem in this area, particularly in the east. Cereal rust may occur in the eastern portion. The frost-free period can be fairly short in the northwestern and northeastern sections.

**Area 4:** Rainfall is usually adequate for crop



production. However, early fall frosts and wet harvest weather are frequent problems.

Note About Dividing Lines:

The dividing lines do not represent dis-

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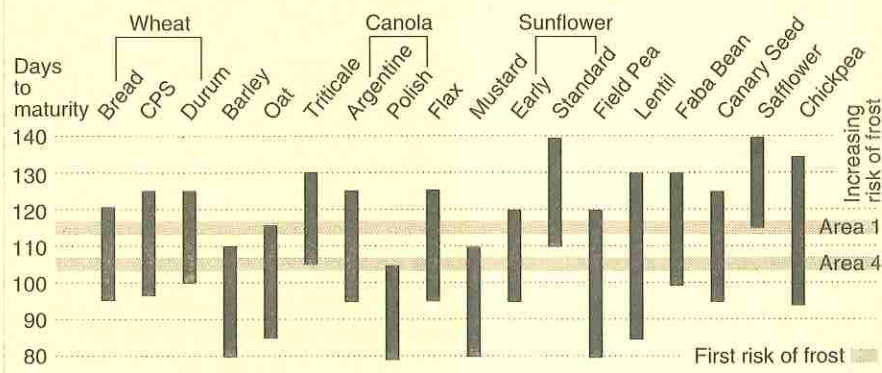
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## Relative Maturity Ratings

Relative maturity ratings are average number of days from seeding to swathing ripeness. The actual number of days to reach maturity depends on local climate and to some extent on management practices.

Some of the following tables express the relative maturity in days while others use a five category scale: **VE**, **E**, **M**, **L**, and **VL** (very early, early, medium, late, very late). Medium applies to the most widely grown check variety which appears at the top of each table. The limits for each category vary from crop to crop. In barley, for example, Harrington would be medium with **L** and **E** varieties + or -, 1-2 days and **VL** and **VE** varieties beyond these, e.g. **VL**-Seebe, **L**-Manley, **M**-Harrington, **E**-B1602, **VE**-CDC Fleet.

### Relative maturity ranges for spring crops grown in Saskatchewan



## Comparisons

The relative maturity of varieties of different crops is important when making plans for seeding. The above table compares the relative maturity ranges for crops grown in Saskatchewan.

Maturity is measured from seeding to

tinct changes over a short distance. The change from one area to another is gradual.

swathing ripeness. Within each crop there are early and late maturing varieties. Whether a crop matures before the first killing frost depends on seeding date, management practices and environment factors.

Not all crops have a wide area of adaptation.

# Cereal Crops

## Wheat

Main characteristics of varieties

Type & Variety	Area 1	Area 2	Area 3	Area 4	Irr	Relative maturity in days	Resistance to*										
							Lodg- Protein	Shat- ing	Sprout -ing	Stem rust	Leaf rust	Loose smut	Bunt	Leaf spot	Root rot	FHB	
<b>Bread Wheat</b>													Yield as % of Katepwa				
Katepwa	100	100	100	100	100	98	14.2	F	G	F	G	F	G	G	P	F	F
AC Barrie <sup>△</sup>	103	108	113	111	113	+2	+0.5	G	G	G	G	G	G	G	F	F	F
AC Cadillac	103	109	110	104	111	+1	+0.2	F	G	F	G	G	VG	VG	P	F	P
Columbus	99	101	102	96	92	+5	+0.2	F	F	VG	F	G	F	VG	P	F	P
AC Cora	101	103	103	102	103	0	+0.2	F	G	F	G	VG	G	G	P	F	F
AC Domain	95	96	100	97	98	0	+0.7	G	G	VG	G	VG	VG	F	VP	F	P**
AC Eatonia <sup>△</sup>	95	99	99	94	97	+2	+0.7	P	G	VG	G	F	F	G	P	F	--
AC Elsa <sup>△</sup>	106	111	113	100	108	+1	+0.4	F	G	F	G	G	G	G	F	F	VP
AC Intrepid	107	107	112	106	---	-1	0.0	G	G	F	G	G	F	G	P	F	--
Invader <sup>△</sup>	102	105	105	104	96	+3	+0.4	G	G	F	G	G	G	F	P	F	P
Laura	103	107	106	105	93	+3	+0.2	F	G	F	G	G	F	P	P	G	--
AC Majestic <sup>△</sup>	97	103	105	103	97	+4	+0.4	G	F	VG	G	G	F	VG	F	F	F
CDC Makwa	101	103	101	101	100	+1	0.0	F	G	F	G	F	G	F	P	F	--
McKenzie	105	110	112	---	---	0	0.0	F	G	VG	G	VG	VP	VG	P	F	F
AC Michael	102	103	99	100	98	+1	0.0	F	G	F	G	F	G	G	P	F	--
AC Minto <sup>++</sup>	99	102	101	100	94	+3	+0.3	F	G	F	G	G	VG	G	P	F	P
Pasqua	101	102	100	100	92	+2	+0.1	F	G	G	G	G	F	F	P	F	P
Roblin <sup>++</sup>	92	93	97	95	99	-1	+0.5	G	G	P	G	G	G	P	P	G	VP
AC Splendor <sup>△</sup>	91	98	102	92	99	-2	+0.7	F	G	P	G	VG	F	G	VP	F	P
CDC Teal	100	102	108	103	105	0	+0.4	G	G	P	G	G	G	F	P	F	VP
<b>Canada Prairie Spring Wheat</b>																	
<b>Red Seeded</b>																	
AC Crystal <sup>△</sup>	123	135	135	121	134	+5		VG	VG	P	G	G	F	G	F	F	VP**
Cutler <sup>++</sup>	93	100	101	96	---	+1		G	F	VP	G	P	F	VP	---	F	--
AC Foremost	123	131	131	125	123	+4		G	G	F	G	G	F	G	P	F	VP
AC Taber	121	131	131	123	131	+6		VG	VG	P	G	G	P	G	F	F	VP
<b>White Seeded</b>																	
Genesis <sup>++</sup>	125	130	130	123	129	+5		P	VG	VP	F	F	F	VP	F	F	F
AC Karma <sup>△</sup>	121	133	133	130	126	+4		G	G	P	G	G	F	G	P	F	P
AC Vista <sup>△</sup>	122	133	135	---	---	+3		G	G	F	G	G	G	G	P	F	VP
<b>Canada Western Extra Strong</b>																	
Bluesky <sup>++</sup>	96	93	95	99	---	+1		F	G	P	G	F	VG	F	P	G	--
Glenlea	95	105	108	110	---	+4		F	G	P	G	G	VG	F	P	G	P
Wildcat <sup>++</sup>	90	87	92	93	---	0		F	G	P	P	P	VG	VP	P	G	--
Laser <sup>△</sup>	98	108	117	114	---	+1		F	G	P	P	P	VG	VP	P	G	P
<b>Durum Wheat</b>													Yield as % of Kyle				
Kyle	100	100	100	100	100	+5	13.6	P	VG	F	VG	VG	P	VG	P	F	VP
AC Avonlea	103	103	112	-	-	+4	+0.2	F	VG	-	VG	VG	P	VG	P	F	--
AC Melita	95	95	100	---	111	+3	-0.2	F	VG	P	VG	VG	P	VG	VP	F	VP
Plenty	101	106	107	108	109	+4	-0.1	F	VG	P	VG	VG	P	VG	F	G	VP
Sceptre	97	97	99	100	112	+2	-0.6	G	VG	P	VG	VG	P	VG	P	G	VP

\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

\*\* Fusarium head blight resistance for these varieties has shown high variation between locations and years.

++ This variety might not be described in 1999.

--- No data available.

FHB Fusarium Head Blight



Progress through Research

AT TIME OF PRINTING:

**Protected by Breeders' Rights:** AC Barrie, AC Eatonia, Invader, AC Karma.

**Applied for Protection:** AC Elsa, Laser, AC Majestic, AC Crystal, AC Splendor, AC Vista

### Additional Information

Response of varieties to Fusarium head-blight has been added to the table. Durum wheat varieties are more susceptible than CWRS varieties and CPS varieties are intermediate.

Seed of varieties rated poor and very poor for bunt and loose smut should be treated. Please refer to the Seed Treatment section of this pamphlet or to the *Crop Protection Guide 1998*.

All of the varieties have been rated for their relative resistance to pre-harvest sprouting.

During wet harvest weather grades drop more rapidly due to sprouting in swathed than in standing crops.

### Canada Western Red Spring Wheat

Seed of the new varieties **AC Cadillac**, **AC Elsa**, **AC Intrepid** and

McKenzie will not be available in 1998.

AC Cadillac has a large seed size and heavy volume weight.

AC Eatonia is resistant to wheat stem sawfly.

AC Intrepid has much larger seed size than Katepwa.

McKenzie has an awned head and may produce a stem with a purplish color. It is a normal characteristic of this variety.

Invader and Laura are awned.

### Canada Prairie Spring Wheat

AC Karma, AC Vista, AC Crystal and AC Foremost have resistance to loose smut, except the new race T9. In order to prevent the spread of this new race, all Canada Prairie Spring seed produced in northeast Saskatchewan should be treated with a systemic fungicide. Please refer to the Seed Facts section or

to the *Crop Protection Guide 1998*.

Seed for AC Crystal and AC Vista will not be available in 1998.

AC Vista has higher protein content and stronger gluten than AC Karma. AC Vista has an interim registration to facilitate test-marketing.

AC Crystal has improved gluten strength compared to AC Foremost and AC Taber.

### Canada Western Amber Durum

All durum varieties are susceptible to two new races of loose smut. Seed can be treated to provide control. See the Seed Facts section for details.

Kyle receives better grades than other varieties even under adverse harvesting conditions.

AC Avonlea has improved pigment content and shorter, stronger straw than Kyle.

Under some conditions, the stems of Plenty break off near ground level.

### Soft White Spring Wheat

AC Reed and AC Phil have similar yield potential to Fielder and mature about two days earlier. AC Reed and AC Phil are moderately resistant to shattering, powdery mildew, and common root rot, moderately susceptible to leaf and stem rust, and susceptible to common bunt. AC Phil, generally, has less black point than AC Reed and Fielder. Seed of AC Phil will not be available in 1998.

### Canada Western Extra Strong

Laser has an interim registration. Seed will not be available in 1998.

Bluesky, Wildcat, and Laser may not have as strong a gluten as Glenlea.

## Winter Wheat

Main characteristics of varieties

Variety	Grain yield as % of CDC Kestrel				Resistance to*				
	Areas 1 & 2	Areas 3 & 4	Irrigation	Protein	Lodging	Winter kill	Stem rust	Leaf Rust	Bunt
CDC Kestrel	100	100	100	10.9	G	G	P	P	P
CDC Clair	102	102	100	11.7	G	G	P	P	P
CDC Osprey	101	102	94	11.7	G	G	P	P	P

\* Resistance rating: G = good; F = fair; P = poor.

## Triticale

Main characteristics of varieties

Variety	Yield as % of Frank					Resistance to*					
	Area 1	Area 2	Area 3	Area 4	Irr***	Maturity**	Lodging	Stem rust	Leaf rust	Bunt	Root rot
Frank	100	100	100	100	100	M (105 days)	G	VG	VG	VG	F
AC Alta	101	99	101	---	109	L	G	VG	VG	VG	G
Banjo	93	96	98	97	100	L	G	VG	VG	VG	G
AC Certa	99	96	102	---	101	M	G	VG	VG	VG	G
AC Copia	98	95	95	99	100	M	G	VG	VG	VG	G
Pronghorn	97	99	102	---	108	E	G	VG	VG	VG	G
Sandro	96	96	96	---	---	E	G	VG	VG	VG	G
Wapiti	97	102	97	90	106	L	G	VG	VG	VG	G

\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

\*\* Relative maturity: VE = very early; E = early; M = medium; L = late; VL = very late.

\*\*\* Relative yields under irrigation are based on limited data.

### Additional Information

Triticale matures 2-3 days later than AC Taber wheat, therefore, should be seeded as early as possible. Triticale matures very

late in Area 4. Test weight of AC Certa is superior to other varieties. The seeding rate for triticale must be increased at least 30 percent to have the same number of

plants per square foot as CWRS wheat. Limited seed of Sandro may be available in 1998.

## Other Crops

### Buckwheat

Buckwheat is sensitive to high temperatures and dry weather conditions in the blossom stage which can reduce seed set and yields. Pollination is required to maximize yield. Buckwheat is very susceptible to frost at all stages of growth. Delayed seeding is advisable to avoid spring frost.

### Caraway

Caraway is a biennial spice crop, producing seed in the second year and some in the third year. Seedlings are small, slow in developing and compete poorly with weeds. The crop is usually swathed because of its indeterminate growth habit and seed shattering.

### Fenugreek

Fenugreek is a leguminous spice crop adapted to dryland conditions in the Dark Brown and Brown soil zones. The crop should be seeded early to avoid yield and quality loss from fall frost. Contract production is advisable, as markets are extremely limited.

## Malting Barley

Main characteristics of varieties

Type & variety	—Yield as % of Harrington—							Resistance to**									
	2 or 6 row	Rough or smooth awns	Area				Relative maturity rating*	Straw††	Lodging	Shattering	Leaf spots		Loose smut	Other smuts	Root rot	Stem rust	
			Area 1	Area 2	Area 3	Area 4					Net blotch	Scald					
<b>Two Row</b>																	
Harrington	2	R	100	100	100	100	M	N	F	VG	VP	P	P	P	F	P	
AC Oxbow	2	R	96	98	102	105	M	N	VG	VG	F	P	VG	G	P	G	
B1215	2	R	103	105	108	110	L	N	G	G	VP	P	P	P	P	P	
Manley	2	R	105	111	111	112	L	N	G	VG	F	P	P	VG	F	G	
AC Metcalfe <sup>△</sup>	2	R	102	109	109	114	M	N	G	G	F	P	VG	F	F	G	
Stein	2	R	104	107	108	109	M	N	F	VG	F	P	P	G	P	G	
<b>Six Row</b>																	
B1602	6	R	90	101	99	100	E	N	G	P	F	P	P	G	VG	G	
Tankard	6	S	101	106	107	103	M	N	G	VP	F	P	P	P	G	G	
<i>Interim Registered</i>																	
<b>Two Row</b>																	
CDC Lager <sup>△</sup>	2	R	97	109	111	113	M	N	G	G	F	P	P	P	F	G	
CDC Stratus	2	R	101	112	114	114	M	N	G	G	F	P	F	F	F	G	
TR129	2	R	88	101	96	88	VE	SD	VG	G	F	G	F	F	F	G	
TR139 <sup>△</sup>	2	R	106	112	114	---	M	N	G	G	G	VP	P	P	G	G	
TR145	2	R	101	105	107	---	M	N	G	G	P	G	P	F	F	G	
<b>Six Row</b>																	
Excel	6	S	99	110	112	---	M	N	VG	F	F	P	P	G	G	G	
Foster <sup>△</sup>	6	S	---	---	---	---	M	N	VG	F	F	P	P	F	G	G	
Robust	6	S	86	102	101	108	M	N	G	F	F	P	P	P	G	G	
Stander <sup>△</sup>	6	S	99	116	114	---	M	N	VG	F	F	P	P	P	G	G	
BT941 <sup>△</sup>	6	R	92	107	105	105	M	N	G	F	P	P	P	G	G	G	
BT433 <sup>△</sup>	6	S	100	109	115	118	M	N	F	P	P	P	P	P	F	G	
BT435 <sup>△</sup>	6	S	99	102	114	114	M	N	G	P	F	P	P	P	F	G	

\* Relative maturity: The relative maturity of the check, Harrington is M (on average, 91 days from seeding to swathing ripeness).  
VE = very early; E = early; M = medium; L = late; VL = very late

\*\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

--- Limited data †† N = Normal; SD = Semidwarf



AT TIME OF PRINTING:

Protected by Breeders' Rights: Stander, CDC Lager

Applied for Protection: TR139, BT941, BT433, BT435, AC Metcalfe, Foster

### Lines under Interim Registration for Evaluation of Malting and Brewing Quality.

Small scale tests are a good measure of malting potential but are not sufficient to determine the commercial acceptability of malting varieties. Final acceptance is given only after two years of successful plant scale evaluation. Several carload lots of barley are malted and subsequently brewed. The beer is then given the ultimate test — a taste panel. This process will normally take a minimum of three years. A crop grown in 1998 will be

malted in January-February, 1999. It will be brewed in May-June, 1999, aged and tasted in October-November 1999. A crop grown in 1999 will be tasted in October-November, 2000.

To facilitate this testing, "Interim Registration" has been established as a special category. This registration is granted for up to three years. It allows seed increase and marketing in a normal manner but automatically expires if performance of the line is not satisfactory. If performance is satisfactory then a full registration is granted. Production of the

carload lots for evaluation is done by contract through the Canadian Wheat Board.

### Additional Information

Six-rowed white aleurone malting varieties cannot be distinguished from feed varieties. Therefore, they should be grown under contract to ensure purity and eligibility for malting consideration.

Growers are reminded that the industry is cautious about using new varieties.

Growers are cautioned that malting varieties, especially two rows, are very susceptible to sprouting.

## Rye

Main characteristics of varieties

Variety	—Yield as % of Musketeer—				Maturity**	Resistance to*			
	Area 1	Area 2	Area 3	Area 4		Winter killing	Shattering	Lodging	Stem rust
Musketeer	100	100	100	100	M	VG	F	G	G
Prima	107	108	105	108	M	VG	F	F	G
AC Rifle	128	103	96	---	M	VG	VG	VG	G

\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

\*\* Relative maturity ratings: VE = very early; E = early; M = medium; L = late; VL = very late.

### Additional Information

Gazelle and ROGO are the only registered varieties of spring rye. Danko and

Kodiak are very susceptible to winter killing in Saskatchewan and therefore should only be considered for production

using some form of conservation tillage. AC Rifle is a semidwarf. Certified seed of ROGO may not be available.

## Feed and Food Barley

Main characteristics of varieties

Type & variety	2 or 6 row	Rough or smooth awns	— Yield as % of Harrington —				Relative maturity rating**	Straw††	Lodging	Shattering	Resistance to*				Root rot	Stem rust
			Area 1	Area 2	Area 3	Area 4					Net blotch	Scald	Loose smut	Other smuts		
<b>Feed</b>																
Brier	6	S	112	114	116	116	M	N	F	F	G	F	P	VG	VP	G
Bronco	6	R	92	106	112	117	L	N	G	F	F	P	P	G	F	G
CDC Dolly	2	R	112	116	114	116	M	N	G	G	P	G	P	G	F	G
CDC Fleet	2	R	90	99	93	---	VE	N	VG	G	F	VG	P	VP	P	G
CDC Guardian	2	R	99	106	107	113	L	N	F	G	F	VG	P	VG	P	G
AC Harper <sup>△</sup>	6	S	106	105	113	---	M	N	G	F	F	G	P	F	F	G
AC Lacombe <sup>△</sup>	6	S	102	108	114	111	M	N	G	F	F	F	P	VG	F	G
Prospect	2	R	103	108	109	110	L	N	F	G	VP	P	P	F	F	P
AC Rosser	6	S	106	105	113	---	L	N	G	P	F	VP	P	VG	G	G
Seebe	2	R	98	105	108	114	VL	N	G	G	P	VG	P	VG	P	P
<b>Hulless</b>																
Condor	2	R	85	83	82	79	M	N	G	G	P	P	P	F	F	G
CDC Dawn	2	R	94	99	99	---	M	N	F	G	F	VG	P	F	F	G
Falcon <sup>△</sup>	6	S	72	91	86	89	M	SD	VG	P	F	VG	P	F	F	G
CDC Gainer	2	R	---	---	---	---	M	N	F	G	F	G	P	F	F	G
AC Hawkeye <sup>△</sup>	6	S	84	97	100	---	M	N	F	F	F	VG	P	P	F	G
Phoenix <sup>△</sup>	2	R	82	94	94	94	M	N	G	G	P	P	P	F	G	P
CDC Richard	2	R	84	94	93	90	E	N	P	F	P	VG	P	F	G	G
CDC Silky	6	S	85	100	98	102	M	SD	VG	F	F	VG	P	F	G	G
<b>Intensive Management</b>																
Duke	6	R	92	97	97	95	L	SD	VG	F	F	VG	P	VG	G	G
CDC Earl	6	R	99	112	111	114	L	SD	VG	F	G	VG	P	G	G	G
Kasota <sup>△</sup>	6	S	95	110	101	111	E	SD	G	F	F	G	P	G	P	G
Stetson	6	S	---	---	---	---	L	SD	VG	F	F	G	P	G	F	?
Tukwa	6	S	94	113	120	120	E	SD	G	F	G	G	P	VG	F	G

\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

\*\* Relative maturity: The relative maturity of the check, Harrington is M (on average, 91 days from seeding to swathing ripeness).

VE = very early; E = early; M = medium; L = late; VL = very late

--- Limited data.

†† N = Normal; SD = Semidwarf



AT TIME OF PRINTING:

**Protected by Breeders' Rights:** AC Lacombe, Falcon, Phoenix, Kasota.  
**Applied for Protection:** AC Harper, AC Hawkeye, HB803, Merlin.

### Additional Information

#### Hulless

In hulless varieties the hull is left in the field, therefore, comparable yields are 10-15 percent lower. Hulless seed is more susceptible to damage than hulled seed, so handling should be minimized.

#### Hulless Waxy

CDC Candle, HB803<sup>△</sup> and Merlin<sup>△</sup> are waxy starch varieties for specialty markets. These varieties have interim registration to permit market evaluation. For further information contact the Prairie Pools.

#### Irrigation

Under irrigation, disease resistance, straw strength and maturity are more critical.

Growers should select early, strong-strawed, disease resistant varieties and should consider semi-dwarf varieties.

#### General comments

A race of stem rust which attacks all of our previously resistant varieties has appeared in the eastern prairies and the northern great plains. It is not clear how persistent this race will be over time.

**Early sowing is the only practical mea-**

**sure which can be taken at this time.**

None of the current two-rowed varieties have good field resistance to all races of net blotch. Therefore, growers who must plant barley on barley stubble should select six-rowed varieties which are more tolerant.

Most of the available varieties are susceptible to one or more types of smut. Therefore, seed should be treated on a regular basis.

Harvesting grain over 16 percent moisture and then using aeration bins for drying can lead to sprouting and embryo death. Seed with reduced germination is undesirable for seeding or malting purposes.

## Seed Facts

### Damp and Frozen Seed

**Seed which is stored damp or tough may be low in germination.** Grain which is being saved for seed should be dried if necessary, soon after harvest. Drying temperature should be kept below 37°C for batchdriers, or 43°C for

recirculating and continuous driers. Frozen grain should never be sown without a laboratory germination test. Such grain will frequently produce a high percentage of abnormal seedlings.

### Production Notes

All wheat classes including durum and triticale are susceptible to wheat midge.

Farmers in infested areas should be prepared to spray fields with recommended insecticides if necessary. Refer to the *Orange Wheat Blossom Midge* publication.

Residue of infested crops may harbor disease agents. Seeding into stubble of the same crop kind will increase disease risk, particularly in the higher rainfall areas.

(See more Seed Facts on page v.r. 11.)

## Oat

Main characteristics of varieties

Variety	Yield as % of Calibre				Test wt. (kg/hl)	% Hull	% Plump	Maturity rating*	Resistance to**			
	Area 1	Area 2	Area 3	Area 4					Lodging	Stem rust	Leaf rust	Smut
Calibre	100	100	100	100	50.0	22.9	44	M <sup>(90 days)</sup>	G	VP	VP	P
AC Assiniboia	93	98	94	96	47.9	22.9	74	M	VG	VG	VG	VG
CDC Boyer	100	103	99	102	47.2	22.6	81	E	G	VG	F	P
Derby	101	101	102	103	50.1	22.2	74	M	G	VP	VP	P
ELVY <sup>‡</sup>	102	107	109	108	48.1	25.0	56	M	G	VP	VP	P
AC Juniper <sup>‡</sup>	103	105	100	105	48.7	23.9	60	E	G	VP	VP	P
AC Medallion <sup>‡</sup>	101	108	101	---	48.2	24.1	71	L	F	VG	VG	VG
AC Mustang <sup>‡</sup>	101	108	111	110	49.5	29.0	70	L	G	VP	VP	P
CDC Pacer	105	110	106	103	48.9	23.7	71	M	G	VP	VP	F
AC Preakness <sup>‡</sup>	97	105	101	101	48.8	22.6	66	L	G	VG	F	VG
Triple Crown <sup>‡</sup>	90	95	107	---	47.6	24.7	67	L	VG	VP	VG	P
#AC Belmont <sup>‡</sup>	74	78	78	77	52.0	n/a	n/a	M	G	VG	F	VG

\* Maturity rating: VE = very early; E = early; M = medium; L = late; VL = very late.

\*\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

# Hulless variety

Use of capital letters in variety names is as they are registered.



AT TIME OF PRINTING:

Applied for Protection: ELVY, AC Juniper, AC Medallion, AC Mustang, AC Belmont, AC Preakness, Triple Crown.

### Additional Information

While not as leaf rust resistant as **AC Assiniboia**, **AC Medallion** or **Triple Crown**, **CDC Boyer** may be considered for the oat rust area of south-east Saskatchewan, but should be planted early to

avoid late disease infection. All other varieties are susceptible to oat rusts and may be at risk if grown in the oat-rust area. **AC Assiniboia** has brown hulls. Seed supplies of **AC Medallion** and **Triple Crown** will be limited for 1998.

**Hulless Oat:** The hull is part of normal oat yield, thus hulless types yield less. They can be difficult to handle and should be stored at less than 12 percent moisture.

## Other Crops

### Canary Seed

The seed of annual canarygrass, more commonly called canary seed, is used as food for caged and wild birds. Three registered varieties are available. **Elias** and **Keet** are similar in yield, but **Keet** is earlier maturing and more resistant to lodging. A new hairless variety, **CDC Maria**, is available for 1998. Seeds and plants of **CDC Maria** do not have the small sharp hairs that cause irritation when canary seed is threshed and handled. The maturity requirements are equal to wheat. Canary seed plants have a dense shallow root system and thus growing the crop on sandy soils is not recommended. Summerfallow is generally used, but canary seed may be grown successfully on stubble, proving adequate moisture is available for rapid germination and emergence.

Sow at the same optimum date as spring wheat at 34 kg/ha (30 lb/a) (germination greater than 85 percent). Early seeding may lower yields in some cases.

Plant the seed 3.5 to 5 cm deep into a firm seedbed.

Fertilizer requirements are similar to those for cereal crops.

Canary seed is subject to damage by English grain aphid and bird cherry-oat aphid. Aphid populations build up rapidly on leaves, stems and head of the plant in August and may require an insecticide application to prevent yield loss. An application of Malathion or Cygon is recommended if aphid densities exceed 10-20 aphids per stem or head. The aphids often hide in the dense head of canary seed. Damage may occur at populations below these levels; data do not exist to support the suggested action threshold.

Canary seed leaf mottle is a foliar disease that can cause yield losses. Leaf mottle is caused by a fungus, *Seporia triseti*, that only affects canary seed. The disease is inconspicuous at early stages because there is little visual contrast between healthy and diseased leaf area. Stubble borne

inoculum is the source of infection, thus crop rotation is key in limiting the severity of leaf mottle.

Canary seed should not be seeded on land that was treated with trifluralin or ethalfluralin the previous year.

Canary seed is resistant to shattering. It may be straight-combined or swathed when fully matured.

### Safflower

Safflower is an annual oilseed or birdseed crop which can be grown successfully in the Brown soil zone. Safflower must be sown early (late April).

**Saffire** matures in about 120 days. Seed shallow but into a firm moist seedbed at about 30 kg/ha (27 lbs/A). **Saffire** has moderate resistance to *Sclerotinia* head rot and *Alternaria* leaf spot. Contract production is advisable.

**AC Stirling** has acceptable birdseed quality and higher oil content compared to **Saffire**. **AC Sunset** has the earliness of **Saffire** combined with higher oil content and resistance to *Sclerotinia* head rot.

# Oilseed Crops

## Argentine Canola

Main characteristics of varieties

Variety	Yield as a % of AC Excel			Average % Oil	Average maturity in days	Resistance to*	
	Area 2	Area 3	Area 4			Lodging	Blackleg**
AC Excel	100	100	100	45.7	99	F	F
220	118	118	118	45.6	100	VG	G
44A89	112	106	---	45.4	96	G	G
46A05 <sup>△</sup>	---	115	---	45.7	99	F	F
46A65 <sup>△</sup>	113	115	123	46.6	98	F	VG
BATTLEFORD	108	109	106	45.8	99	G	G
BEACON <sup>△</sup>	---	103	---	45.7	98	G	G
Bounty	112	111	108	44.8	99	P	P
BRIGADE <sup>△</sup>	---	112	---	45.5	100	VG	G
CHALLENGER <sup>△</sup>	114	115	---	46.7	100	G	G
CLAVET <sup>△</sup>	106	107	112	45.4	99	F	G
CORONET <sup>△</sup>	---	116	---	45.7	100	F	G
Crusher <sup>△</sup>	---	112	---	46.6	102	VG	F
DAKINI	108	96	---	46.4	101	F	F
DEFENDER <sup>△</sup>	---	---	---	44.6 <sup>††</sup>	98	VG	G
Delta	108	112	118	44.1	100	G	F
OAC Dynamite	114	114	---	45.5	98	G	VG
EAGLE <sup>△</sup>	114	114	---	45.6	97	G	G
Ebony <sup>△</sup>	101	103	---	46.5	100	VG	G
AC Elect	---	107	---	46.1	99	G	P
Garrison <sup>△</sup>	---	124	---	45.0	101	VG	G
Goliath	102	93	---	47.3	98	G	F
AC-H102 <sup>†</sup>	109	113	125	45.4	100	G	G
Hudson <sup>△</sup>	117	116	---	44.5	97	G	G
Hyola 401 <sup>†</sup>	102	121	---	44.1	99	G	P
Impact <sup>△</sup>	---	115	---	45.1	100	G	F
IMPULSE <sup>△</sup>	111	115	---	46.4	100	G	VG
Jewel <sup>△</sup>	106	105	104	45.1	100 <sup>***</sup>	G <sup>***</sup>	G
Legacy <sup>△</sup>	---	118	112	45.0	98	G	F
LG3220 <sup>△</sup>	110	104	---	45.2	97	VG	G
LG3260 <sup>△</sup>	106	106	---	47.8	97	F	P
LG3310 <sup>△</sup>	99	110	---	45.9	100	G	VG
LG3430 <sup>△</sup>	104	111	---	45.5	100	G	VG
LG3650 <sup>△</sup>	---	124	---	47.0	99	F	G
Magnum <sup>△</sup>	---	118	---	45.6	96	F	G
Mari	---	87	---	45.8	101	F	G
Optimum 500	110	106	---	46.3	99	F	G
Quantum <sup>△</sup>	---	121	---	44.2	99	G	VG
Sentry	97	101	94	44.3	99	F	VG
Seville <sup>△</sup>	---	115	---	45.0	102	G	F
OAC Springfield	100	110	---	45.8	96	VP	P
Sprint <sup>△</sup>	97	97	94	44.8	95	F	G
TRAILBLAZER <sup>△</sup>	109	111	---	46.5	101	G	G
Trojan <sup>△</sup>	---	117	---	44.7	101	VG	F
Vanguard	105	99	91	45.2	100	F	F
46A72 (HT) <sup>△</sup>	108	105	---	45.8	100	G	F
45A71 (HT) <sup>△</sup>	113	107	101	45.2	99	F	F
AC Tristar (HT)	75	79	67	43.8	98	P	VP
Independence (HT) <sup>△</sup>	105	98	---	45.6	97	F	F
Innovator (HT) <sup>△</sup>	102	97	90	45.3	97	F	F
Quest (HT) <sup>△</sup>	111	106	100	46.2	98	F	F
Stallion (HT)	73	80	---	42.8	100	F	F

HT Herbicide tolerant --- Limited data † Hybrid †† estimated

\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

\*\* A minimum of 3 years between canola crops (4 year rotation) is essential to reduce the incidence of blackleg.

\*\*\* Maturity and lodging data based on five tests in one year (1997).

Use of capital letters in variety names is as they were registered.

### AT TIME OF PRINTING:

**Protected by Breeders' Rights:** 46A65, 46A05, Crusher, DEFENDER, Ebony, Garrison, Impact, Jewel, Legacy, LG3310, Magnum, OAC Springfield, Quantum, Seville, Sprint, Trojan, 45A71, Innovator.

**Applied for Protection:** BEACON, BRIGADE, CHALLENGER, CLAVET, CORONET, EAGLE, Hudson, IMPULSE, LG3260, LG 3220, LG3430, LG3650, TRAILBLAZER, 46A72, Independence, Quest.



## Polish Canola

Main characteristics of varieties

Variety	Grain yield % AC Parkland			Average % Oil	Average maturity in days	Resistance to*	
	Area 2	Area 3	Area 4			Lodging	White rust
AC Parkland	100	100	100	44.1	84	F	VG
41P04	---	111	---	43.3	85	G	G
41P55	106	113	---	42.8	84	G	F
41P95 <sup>△</sup>	102	101	---	43.9	84	G	VG
AC Boreal	100	98	99	45.0	84	F	VG
CASH <sup>△</sup>	97	109	---	43.8	84	G	F
CHINOOK <sup>△</sup>	99	103	---	43.3	85	G	F
Eclipse	100	93	89	43.8	84	G	F
Eldorado	117	102	---	43.9	84	G	P
FAIRVIEW	104	107	---	44.2	85	G	G
FOOTHILLS	105	101	---	43.2	84	G	VG
Goldrush <sup>△</sup>	112	103	---	42.4	86	G	G
Horizon	106	102	98	43.2	84	G	VP
Hysyn 100	107	108	---	43.4	85	G	F
Hysyn 110	109	110	120	42.8	85	F	F
Hysyn 111	103	107	118	42.7	86	G	G
Hysyn 120 CS	101	104	---	43.8	85	G	G
Klondike <sup>△</sup>	---	110	---	42.8	87	VG	VP
MAVERICK <sup>△</sup>	---	111	---	44.7	84	G	F
NORWESTER	105	108	110	43.1	86	G	G
Reward	104	103	100	44.2	84	G	VG
AC Sunbeam	104	110	103	43.4	83	G	VG
AC Sunshine	102	108	98	44.0	84	F	VG
WESTWIN	105	109	---	44.4	85	G	G

\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

--- limited data

Use of capital letters in variety names is as they were registered.



AT TIME OF PRINTING:

Protected by Breeders' Rights: CHINOOK, Goldrush, Klondike  
Applied for Protection: 41P95, CASH, MAVERICK.

### Additional Information

The check varieties have been changed. AC Excel replaces Legend for Argentine varieties and AC Parkland replaces Tobin for Polish varieties. As a result of this change, where there is limited data comparing the variety to the check, a dash (---) is shown.

### Argentine Canola

Argentine varieties yield about 20 percent more than Polish varieties, mature 10 to 14 days later than Polish varieties and are therefore better suited to the longer season growing areas of Saskatchewan. Argentine varieties are black seeded and have very good resistance to white rust (staghead). Blackleg disease, which is widespread in Saskatchewan, can cause severe yield losses in varieties that have poor resistance. Argentine varieties are susceptible to seed shattering when left standing at full maturity. Later maturing varieties tend to produce higher levels of green seed under wet and cool conditions at harvest, which can cause substantial grade reductions. Late maturing varieties should be planted early to reduce green seed counts. All Argentine varieties are susceptible to Sclerotinia stem rot.

New Argentine varieties included in the table: 220, 44A89, BATTLEFORD, BEACON, DAKINI, LG3220, LG3430, OAC Dynamite, Optimum 500 and Goliath.

All Argentine varieties are compared to AC Excel.

### Polish Canola

Polish varieties are yellow-brown seeded and mature approximately two weeks earlier than Argentine varieties. All Polish varieties are susceptible to Sclerotinia stem rot and blackleg. Blackleg is less of a threat in Polish canola because of its early maturity which tends to reduce the impact of the disease on seed yields. Polish canola varieties are less likely to produce green seed owing to their early maturity, and may yield more than Argentine varieties under drought conditions or early fall frost. Polish varieties are more shatter resistant than Argentine varieties and are therefore well suited to straight combining. New Polish varieties included in the table: 41P04, 41P55, FOOTHILLS and Hysyn 120CS.

### Herbicide Tolerant (HT) Canola

The triazine tolerant varieties AC Tristar and Stallion are lower yielding than standard canola varieties. Quest is tolerant

to Roundup, 46A72 and 45A71 are tolerant to Pursuit/Odyssey, and Innovator and Independence are tolerant to Liberty. HT varieties should be considered when severe weed infestations are expected.

### Specialty Oil Rapeseed and Canola

High erucic acid oil is needed for special industrial oil markets. Argentine type, high erucic acid varieties have been developed for these markets. These varieties are typically lower yielding than standard canola varieties but have very good blackleg and lodging resistance. Low linolenic acid Argentine type canola varieties have been developed, and the oil is used as a premium vegetable oil for human consumption. Varieties of this type tend to be lower yielding and are susceptible to blackleg. Information on the contract production of these specialty oil rapeseed and canola varieties should be obtained from companies that contract such production.

### Irrigation

Argentine varieties respond well to irrigation. Only varieties which are highly resistant to lodging and blackleg should be grown under these conditions. Irrigation may delay maturity by one week or more under certain conditions.



## Sunflower (Oilseed)

Main characteristics of varieties

Type and Variety	Yield as % of IS 7000	Average maturity in days	Oil %
IS 7000	100	120	47.7
IS 6111	110	122	46.0
SF 128	109	127	44.4
SF 187	108	126	42.1
SF 270	112	123	47.1
6230	104	123	45.8
Cadet	101	121	48.9
Capri	88	124	48.6
Comet-C	94	126	48.5
Trisum 846*	96	128	44.4
EMSS			
P6150	2230 kg/ha**	116	45.3

\* high oleic

\*\* based on 16 station years

### Additional Information

Sunflower requires 125-130 days to mature, depending on the cultivar and the growing season. Oilseed sunflower has traditionally been grown in the Dark Brown and Black soil zones in southeastern Saskatchewan. Early maturing, short stature (EMSS) variety P6150 is adapted to production in all areas of Saskatchewan.

## Additional Information

Mustard is grown in the drier regions of Saskatchewan because of the better seed quality obtained under these conditions. Oriental and Brown mustards are usually swathed, but straight combining is also possible. Yellow mustard should be straight combined because of possible losses due to wind damage to the fluffy swath. Any mixtures of rapeseed or canola in mustard, due to volunteer plants in the field or to improper handling on the farm, cause substantial losses through grade reductions. All mustard varieties have very good resistance to blackleg. **AC Vulcan** and **Cutlass** are resistant to white rust while **Forge** and commercial **Brown** are highly susceptible.

Yellow mustard varieties are large seeded, and the seed is light yellow in color. The yield of yellow mustard is approximately 30 percent less than that of Oriental mustard. Differences in yield between the different types of

## Mustard

Main characteristics of varieties

Type & Variety	Yield as % of Cutlass	Average maturity in days
<b>Oriental</b>		
Cutlass	100	93
Forge	100	95
Lethbridge 22A	88	94
AC Vulcan	103	94
<b>Brown</b>		
commercial	90	95
Yield as % of Ochre		
<b>Yellow</b>		
Ochre	100	94
Gisilba	97	95
AC Pennant	106	95
Tilney	99	95
Viscount <sup>Ⓢ</sup>	98	96

mustard is normally compensated for by price. Mustard can be grown under contract.



**AT TIME OF PRINTING:  
Applied for Protection: Viscount**

## Flax

Main characteristics of varieties

Type & Variety	Yield as % of NorLin				Irr	Maturity <sup>1</sup>	Seed <sup>3</sup> size	Resistance to <sup>2</sup>		
	Area 1	Area 2	Area 3	Area 4				Rust	Wilt	Lodging
NorLin	100	100	100	100	100	M(101 days)	M	VG	G	G
AC Emerson	101	98	100	94	98	M	L	VG	VG	F
Flanders	101	102	101	100	108	L	S	VG	G	VG
AC Linora	91	94	100	95	102	L	M	VG	G	VG
AC McDuff <sup>Ⓢ</sup>	98	98	102	98	105	VL	M	VG	G	VG
CDC Normandy	98	101	107	107	113	M	M	VG	G	F
Somme	101	102	104	101	105	M	M	VG	G	F
CDC Triffid	87	101	96	---	---	M	M	VG	G	G
CDC Valour <sup>Ⓢ</sup>	104	106	100	---	---	E	M	VG	G	G
Vimy	110	104	104	101	95	M	L	VG	G	P
AC Watson <sup>Ⓢ</sup>	99	98	101	---	---	M	L	VG	G	G
<b>Solin</b>										
Linola <sup>TM</sup> 989 <sup>Ⓢ</sup>	100	94	100	99	96	L	M	VG	G	VG

1 Relative maturity: VE = very early; E = early; M = medium; L = late; VL = very late.

2 Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

3 S = small, M = medium, L = large.

--- Limited data.



**AT TIME OF PRINTING:  
Protected by Breeders' Rights: AC McDuff, Linola<sup>TM</sup>989.  
Applied for Protection: AC Watson, CDC Valour.**

### Additional Information

**CDC Valour** and **AC Watson** are newly registered varieties and no seed will be available in 1998.

**CDC Triffid** is a genetically engineered variety which can tolerate soil residues of sulfonylurea herbicides. Seed

of **CDC Triffid** will not be available in 1998.

**Solin** is defined as a type of flax with less than five percent linolenic acid in its oil and having a yellow seed coat. Solin varieties produce a food quality oil and, as such, cannot

be sold in traditional flax markets. **Linola<sup>TM</sup> 989** is available only for contract production.

Frozen flax should be analyzed by a feed testing laboratory to determine that it is free of prussic acid before using it as a livestock feed.

# Pulse Crops

## Lentil

Main characteristics of varieties

Variety	Yield as % of Laird	Height (cm)	Days to first flower	Relative maturity rating*	—Resistance to**—		Seed size	Seeding rates*** kg/ha (lb/a)
					Ascochyta blight	Anthrax-nose		
Laird	100	41	53	VL	P	VP	L	90-100 (80-90)
Eston	117	30	48	E	VP	VP	S	45-50 (40-45)
CDC Richlea	117	35	50	M	VP	VP	M	60-70 (53-62)
CDC Redwing†	105	30	48	E	VG	VP	S	45-50 (40-45)

\* Relative maturity ratings: VE = very early; E = early; M = medium; L = late; VL = very late.

\*\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

\*\*\* Equivalent to 12 seeds/foot<sup>2</sup> (132 seeds/m<sup>2</sup>)

† Red cotyledons, other varieties have yellow cotyledons.

### Additional Information

**Indianhead** lentil is a black-seeded

variety released for green manure use.

Detailed agronomic information may be

found in the *Pulse Production Manual* available from the Saskatchewan Pulse Growers.

## Dry Bean

Main characteristics of varieties

Variety	Type	—Yield as % of Othello—			Days to flower	Days to maturity	Pod clearance %	Seed weight (g/1000)	Growth habit**
		Irrigation	Area 2	Area 3					
Othello	pinto	100	100	100	52	98	51	323	III
AC Burrrito	pinto	101*	105*	109*	53	95	64	307	II
CDC Camino	pinto	89*	87*	100*	52	99	81	323	I
Earliray	pinto	73	90	90	50	94	65	349	I
Fargo	pinto	98	95	105	50	96	53	341	III
92021	pinto	102*	96*	108*	52	97	75	351	I
92235	pinto	98*	114*	117*	53	99	67	352	III
92802	pinto	91*	81*	99*	47	93	64	357	III
CDC Nordic	great northern	78*	84*	100*	52	99	62	319	I
92074	great northern	110*	89*	110*	52	98	69	365	I
US 1140	great northern	101	105	108	51	99	53	289	III
UI906	black	81	97	79	60	104	76	148	II
CDC Espresso	black	58	82	89	47	96	87	191	I
CDC Nighthawk	black	66	69	75	58	102	77	165	II
GTS 523	navy	71	90	87	51	95	75	147	I
OAC Seaforth	navy	62	77	76	56	103	73	182	I
AC Skipper	navy	68	69	80	54	102	77	206	I

\* Limited data

\*\* Growth habit: I = determinate bush, II = indeterminate bush, III = indeterminate vine

### Additional Information

Dry bean can be grown under irrigation in Saskatchewan in regions with a warm, long growing season (110 days from seeding after May 20). On dryland, yields are generally lower but maturity is usually earlier. Dry bean crops on dryland greatly benefit from rainfall in late July/early August. In Dark Brown soils (Area 2), the crop may do better on fallow in dry cycles. Early maturity is more critical in Area 3 where cooler weather may create quality problems due to fall frost damage. All data for yield, flowering, maturity, pod clearance and seed weight are based on direct comparisons with the check variety **Othello**. Varieties with higher ratings for pod clearance (percentage of pods completely clearing

the cutterbar at harvest) are easier to swath or direct harvest. Navy beans are more susceptible to cold soil injury. All beans are purchased on the basis of appearance, damage, and in many cases, cooking quality. Seed of **AC Burrrito**, **CDC Camino**, **CDC Nordic**, **92802**, **92235**, **92021** and **92074** will be limited in spring of 1998. **OAC Seaforth** is an older navybean variety used as a check.

The crop does not tolerate frost, flooding or salt-affected soils. Seed in late May when soil temperatures at seeding depth at 15°C or more at rates of 80-100 kg/ha (70-100 lb/a) pinto bean and 25 percent less for blacks and navy beans. Plant seed six centimeters deep in a firm, moist seedbed. Minimize seed damage by using

a hoe or press drill with a metering mechanism suitable for large seeds.

The plants are short and pods may hang to ground level, especially some pinto and most great northern varieties. The field should be smooth, level and rock-free to facilitate swathing or direct harvesting with a flex header equipped with an air reel. Field rolling must be done within four days of seeding. Row crop production (22 or 30 inch spacing) requires an undercutter and a windrower for harvest. Seed should be free of bacterial diseases such as halo and common blight. Color, size and condition of seeds are important quality characteristics affecting marketability.

For more details on production consult the *Pulse Production Manual* available from the Saskatchewan Pulse Growers.

## Faba Bean

### Main characteristics of varieties

Variety	Yield as % of Outlook		Maturity in days	Average seed size
	(Northeast) Dryland	(South-central) Irrigated		
Outlook	100	100	109	360
Aladin	104	110	112	400
CDC Blitz	101	105	109	410
CDC Fatima	100	104	105	520
Cresta	92	101	105	630
Orion	95	94	103	350
Pegasus	101	105	109	380
Scirocco	96	110	107	550

## Seed Facts

### Pedigreed Seed

Use certified seed regularly, and especially when changing to a different variety. This assures that the seed has high genetic purity, high germination and is relatively free from weeds and other crop seeds. Some pedigreed seed may be paid for by an over-quota delivery of commercial grain. Ask your elevator agent or seed dealer for details.

### Reuse of Hybrid Variety Seed

Seed grown from a hybrid variety (regardless of crop or variety) should not be reused since a 20 to 25 percent yield reduction can occur in the next generation. This reduction is due to loss of hybrid vigour and possible occurrence of male-sterile plants. Lack of uniformity for maturity and quality traits will also occur.

### Seed Cleaning

Seed should be carefully cleaned to remove weed seeds, trash, small or broken kernels, ergot and sclerotia. **Country grain elevators are not equipped to clean grain to seed standards and the risk of mixing varieties and types of grain is very high.**

### Seed Treatment

Smuts that attack wheat, barley, oat and rye can be controlled by chemical seed treatments. If bunt or smut was observed in a crop which is being used for seed, the seed should be treated. **If the presence of smut is uncertain, then varieties rated VERY POOR should be treated every year, POOR every second year and FAIR every third year.**

Only systemic fungicides will control true loose smut of barley, and wheat and stem smut of rye because the pathogens are present within the seed. The other types of smut (covered, false loose, oat, and bunt) are carried on the outside of the

seed and may be treated with non-systemic seed treatments containing maneb or formaldehyde. However, use of formaldehyde may reduce seed germination.

The virulent form of blackleg is widespread on canola in Saskatchewan. Treatment of seed with a recommended fungicide can reduce the risk of disease and the risk of introducing the disease into unaffected areas. Growers with carryover stocks of treated seed should have these tested for germination.

Coating of canola with the appropriate seed dressing is a convenient alternative to on-farm seed treatment.

Various fungicides have been registered for the control of seedling disease. Flax, canola, rye and winter wheat seed should be treated to promote good seedling growth.

Wireworms, which attack all grain crops, and flea beetles, which attack canola and mustard, can be controlled by seed treatment with insecticides.

### Seed-borne diseases of pulses

Lentil and chickpea growers should only plant seed that has been tested for seed-borne ascochyta disease and avoid planting next to the previous year's pulse residue. Consult the *Pulse Production Manual* (Saskatchewan Pulse Growers) for details of seed infection tolerances and seed treatment.

**Read the label carefully before using any seed treatment or insecticide. Information on their use and recommended rates are found in the provincial publication Crop Protection Guide 1998. Treated seed must not be delivered to an elevator or used for feed.**

### Ergot

Ergot attacks all varieties of rye, triticale, wheat and barley, as well as most common species of grass. Oat is rarely attacked and all broadleaved species are immune. Grain containing 0.1% ergot is

## Additional Information

Faba bean should be seeded early (late April to early May). It is best adapted to irrigated areas in the Dark Brown Soil Zone and that portion of the Black Soil Zone with the longest growing season.

Seed supplies of **CDC Blitz**, **Scirocco** and **Cresta** are limited.

Faba bean is a legume and thus is able to use nitrogen from the air provided the seed is inoculated with the proper bacteria prior to planting. Faba bean requires a special strain of inoculum which is different from other pulse crops.

considered poisonous and should not be used as food. Details of this disease are found in *Ergot of Grains and Grasses*, Publ. 1438.

### Seed Inoculation

Legume crops obtain much of their nitrogen (N) requirement from the atmosphere by forming a symbiotic association with soil bacteria called rhizobium. These bacteria colonize the roots to form structures called nodules where they fix nitrogen for the legume plant. In order for the nitrogen fixing process to occur, the legume crop seed must be inoculated immediately before seeding with the proper strain of bacteria specific to that crop. The use of a sticker such as a syrup or powdered milk solution will ensure the inoculant is properly adhered to the seed. Some inoculants are produced with self adhesives.

It is common to observe lower levels of nodule formation in fields with no previous history of inoculation of the same crop. Soil and weather conditions can also affect the level of successful colonization. Cool, dry soils are detrimental to the process. **Check expiry date and follow inoculant label directions.**

High soil nitrogen levels (over 60 kg N/ha) inhibit N fixation since the legume plant will preferentially use the soil nitrogen rather than fix nitrogen. If the specific legume (pea or lentil for example) has never been grown in a field before, and the soil test N level is less than 20 kg N/ha, the producer should apply 30 kg N/ha prior to seeding as a precaution against poor inoculation and low nitrogen fixation.

Rhizobium bacteria can live in the soil for a number of years. However, the most efficient nitrogen fixing bacteria may not be among those that survive. For this reason, experienced legume producers inoculate every year. Refer to the *Inoculation of Pulse Crops* publication.

## Field Pea

Main characteristics of varieties

Type & Variety	Yield as % of GRANDE			Relative maturity*	Vine length (cm)	Resistance to**			Lodging	Bleaching	Seed weight (g/1000)
	Areas 1, 2 & South 3	Areas 4 & North 3	Irrigation			Ascochyta blight	Powdery mildew	Seed coat breakage			
<b>Food Type Yellow-Seeded</b>											
GRANDE <sup>△</sup>	100	100	100	M	90	P	P	P	F		260
AC Tamor <sup>△</sup>	81	64	---	L	57	P	G	G	P		280
Alfetta (SL) <sup>△</sup>	107	110	107	M	72	P	P	P	F		290
Anno (SL)	73	85	115	E	63	P	P	P	F		250
Baroness (SL) <sup>△</sup>	89	90	101	E	71	P	P	F	F		290
Bohatyr	85	80	85	M	73	F	P	P	F		270
CANIS (SL) <sup>△</sup>	98	102*	---	E	80	P	P	P	F		270
Carneval (SL) <sup>△</sup>	91	92	119	E	72	F	P	P	G		250
Carrera (SL) <sup>△</sup>	105	108	113	E	55	VP	VP	P	P		270
CPB CONCORDE	101	101	108	E	57	P	P	P	P		280
CPB SPITFIRE	100	98	---	M	62	P	P	P	P		230
CDC Winfield	101	98	90	M	62	VP	VP	P	F		260
DISCOVERY	NR	NR	107	M	63	P	P	P	F		320
Eiffel (SL) <sup>△</sup>	100	111*	111*	E	67	VP	VP	P	F		290
ENDEAVOR	NR	NR	109	M	73	P	P	P	F		260
Exchequer (SL) <sup>△</sup>	94*	101*	---	E	73	P	P	P	F		220
Express	92	90	91	M	62	P	P	P	P		240
FLUO (SL) <sup>△</sup>	83	87	---	VE	85	P	P	F	F		320
Highlight (SL) <sup>△</sup>	90	92	104	E	66	P	G	P	F		210
Impala (SL) <sup>△</sup>	88	83	101	M	72	P	P	P	F		270
LG110 (SL) <sup>△</sup>	103	108	101	E	51	VP	VP	P	F		260
Mandy (SL) <sup>△</sup>	94	103	103	M	57	VP	VP	P	F		270
MARCO (SL)	85*	85*	---	E	62	VP	VP	P	F		260
MIKO(SL)	96	82	110	M	75	P	P	P	F		260
Montana (SL) <sup>△</sup>	89	96	106	E	55	P	P	G	P		300
MUSTANG(SL) <sup>△</sup>	94	86	105	E	60	P	P	F	P		210
PROFI(SL) <sup>△</sup>	96	94	102	E	72	P	P	P	F		270
Richmond <sup>△</sup>	91	91	89	M	67	F	P	P	P		210
Scorpio <sup>△</sup>	83	75	94	E	56	P	P	P	P		280
Spring D <sup>△</sup>	86	85	---	E	62	P	P	F	F		240
TENOR (SL) <sup>△</sup>	101	107	108	E	72	VP	VP	P	F		260
Topper <sup>△</sup>	82	74	---	M	102	P	P	P	P		290
Trapper	79	80	---	L	95	P	P	P	P		140
Victoria	86	85	---	M	84	P	P	P	P		190
VOYAGEUR (SL) <sup>△</sup>	NR	NR	109	M	62	P	P	P	F		190
YORKTON	98	97	97	M	72	P	P	P	F		270
<b>Food Type Green-Seeded</b>											
Ascona (SL)	81	71	124	M	50	P	P	P	F	P	300
CDC Peko	88	81	NR	L	65	F	P	F	P	F	220
CPBP-PHANTOM(SL) <sup>△</sup>	94	78	101	M	48	P	P	P	F	P	310
Clipper <sup>△</sup>	96	82	100	M	59	P	P	P	F	F	300
Danto (SL) <sup>△</sup>	73	56	100	M	52	P	P	F	F	F	290
Emerald <sup>△</sup>	80	84	97	M	75	P	P	F	F	F	250
Explorer (SL) <sup>△</sup>	91	98*	---	M	81	F	P	F	P	F	260
Keoma (SL)	90	86	100	M	53	P	P	P	F	G	240
Lantra (SL) <sup>△</sup>	81*	84*	---	M	57	P	P	P	F	F	340
MAJORET (SL) <sup>△</sup>	84	82	109	M	59	P	P	F	G	F	250
Obelisque (SL)	100	98*	---	E	62	VP	VP	P	F	F	310
Olivin <sup>△</sup>	93	101	95	M	64	VP	VP	F	P	F	270
ORB (SL) <sup>△</sup>	72	76	102	M	55	P	P	P	F	P	240
Princess	77	60	91	E	58	P	P	G	P	G	200
Radley (SL)	77	75	91	M	57	F	P	F	F	G	210
Ricardo	81	74	---	M	52	F	P	F	P	F	280
TOTEM	94	84	93	M	47	P	P	P	F	F	240
<b>Colored flower types</b>											
CDC April (SL)	88*	77*	---	L	53	F	P	G	F		140
CDC Vienna (SL)	92	89	---	L	61	F	P	G	F		170
Sirius	76	75	---	M	96	P	P	G	P		240
Whero	64	63	---	L	110	P	P	G	P		210

SL Semi-leafless variety

NR Not recommended \*Limited data

\* Relative maturing ratings compared to GRANDE: VE = very early; E = early; M = medium; L = late

\*\* Resistance ratings: VG = very good; G = good; F = fair; P = poor; VP = very poor.

Use of capital letters in variety names is as they were registered.



**AT TIME OF PRINTING:**

**Protected by Breeders' Rights:** GRANDE, AC Tamor, Alfetta, Baroness, Carneval, Carrera, FLUO, Highlight, Montana, Richmond, Topper, Emerald, MAJORET, ORB.  
**Applied for Protection:** CANIS, Eiffel, Exchequer, Explorer, Impala, LG110, Lantra, Mandy, MUSTANG, PROFI, Scorpio, Spring D, Tenor, VOYAGEUR, CPB PHANTOM, Clipper, Danto, Olivin.

**Additional Information**

Field pea is best adapted to the Black and Gray soil zones. Production in the Dark Brown soil zones is possible if moisture is not limiting and the crop is seeded early. Early seeding will usually result in late August maturity and increase the likelihood of harvesting high quality seed. Seed splitting may be reduced by harvesting tough and drying in an aeration bin. Seed weight and germination can vary from one seed lot to another. Producers should determine the seed weight and germination of their seed lot before calculating the proper seeding rate (see *Sask. Pulse Production Manual*). Choose varieties based on expectations for food markets or feed markets.

Under dry conditions, short vine types (<80 cm) and semi-leafless varieties may provide poor weed competition and may be difficult to harvest. On the other hand, the semi-leafless characteristic may facilitate harvest, as vines do not lay as flat on the ground if a good stand is achieved. Lodging in field pea can be caused by thin stands, early development of foliar and stem diseases such as ascochyta blight in the lower canopy, and strong winds and pounding rain prior to harvest. Long vine varieties are prone to early lodging.

Green-seeded varieties are generally lower-yielding than yellow-seeded varieties. Many green varieties will bleach if moist conditions before harvest are followed by warm sunny weather. Varieties differ in resistance to seed coat damage during threshing and cleaning. Damaged and uncleaned seed of all varieties is considered low quality and is only suitable for the feed market. If the target market is feed, select varieties with small seed size and high yield potential. If the target market is food, marketability will be affected by seed size, seed shape and seed color. These qualities can be discussed in more detail with food pea marketers prior to seeding.

Certified seed of **Exchequer** and **CDC Peko**, and some other recently registered varieties will not be available in large quantities for 1998 planting. **Promar**, a green-seeded marrowfat variety sold in specialty food pea markets, and **Whero**, a late-maturing long vine yellow-seeded maple type (brown, marbled seedcoat) sold in birdfeed markets, both yield about 60 percent of **GRANDE**.

Provided that adequate moisture is available, the field pea, like other legumes, offers considerable benefit when grown in rotation with other crops. Proper seed inoculation results in nitrogen fixation

which reduces input costs by supplying most of the nitrogen required by a productive pea crop. In addition, succeeding crops require less nitrogen fertilizer to attain high yields. Detailed agronomic information can be found in the *Pulse Production Manual* available from the Saskatchewan Pulse Growers.

Bleaching Data were recorded for green-seeded varieties from 15 dryland sites in 1997. Tolerance to bleaching from best to worst was **Keoma>CDC Peko>Explorer>Olivin>Lantra**. Green Seedcoat Data were recorded for yellow-seeded varieties from 15 dryland sites in 1997. Ratings from most green to least green were **CANIS>Mandy>CPB SPITFIRE>CPB CONCORDE>CDC Winfield>Exchequer>Grande>Tenor>LG110>Eiffel>Alfetta>Carrera**. Data for Percent Seed Dimpling were recorded in 1997. For yellows, dimpling percentage was low (0-5 percent) for **Grande** and **CPB SPITFIRE**; intermediate (6-20%) for **Eiffel, Carrera, Exchequer, Tenor, CPB CONCORDE, CANIS, CDC Winfield, Alfetta** and **Mandy**; high (over 20 percent) for **LG110**. For greens, dimpling percentage was intermediate (6-20%) for **Keoma, Olivin, CDC Peko** and **Lantra** high (over 20%) for **Explorer**.

**Chickpea**

Main characteristics of varieties

Variety	Type	—Yield as % Sanford—		Ascochyta blight resistance	Height (cm)	Days to flower	Days to* maturity	Seed weight (g/1000)
		Brown soil zone	Dark brown soil zone					
Sanford	kabuli	100	100	VG	49	56	106	424
Dwelley	kabuli	86	88	VG	45	57	110	490
B-90	kabuli	118	121	VG	46	55	104	265
CDC Yuma	kubuli	114	106	VG	45	53	105	410
Myles	desi	111	115	VG	41	50	100	200

VG very good

\* maturity will be delayed in areas with a cool moist August

**Additional Information**

Chickpea is best adapted to stubble production in the Brown and Dark Brown soil zones. **Ascochyta blight can COMPLETELY DESTROY the crop.** **Sanford** and **Dwelley** are ascochyta resistant kabuli (large-seeded) varieties but are late-maturing in Saskatchewan. **B-90** is an ascochyta resistant small-seeded kabuli with round seed shape. **Myles** is an ascochyta resistant small-seeded desi

(brown seedcoat) variety. **CDC Marengo, UC 27, and Cheston** are highly susceptible to ascochyta blight. Seed supplies of **CDC Yuma** will be limited in 1998.

Chickpea will tolerate light frosts in the spring. Desi types can be seeded in late April or early May. Kabuli types should be seeded between May 10 and May 20 into a warm seedbed, preferably 10°C or more. This means that kabuli types are often late maturing. Plant six centimeters

deep. The large kabuli types are highly susceptible to seed damage and should be handled gently at all times. Seeding rates are 90-110 kg/ha (80-100 lb/a) for desi and 160 kg/ha (140 lb/a) for kabuli.

The crop stands well and can be swathed or straight cut at maturity. Thresh kabuli types gently to avoid splitting damage. For more details consult the *Pulse Production Manual* published by the Saskatchewan Pulse Crop Growers.

# Breeding Institutions and Seed Distributors of Varieties Listed in this Publication

Crop kind, Class & Variety	Breeding Institution	Distributor	Crop kind, Class & Variety	Breeding Institution	Distributor
<b>Wheat</b>			<b>Excel</b>		
<b>Bread Wheat</b>			Foster	U of Minnesota	Proven Seed, Others
AC Barrie	AAFC (Swift Current)	SeCan Members	CDC Lager	NDSU/UGG	Proven Seed
AC Cadillac	AAFC (Swift Current)	Value Added Seeds	Harrington	U of S - CDC	Sask. Wheat Pool
Columbus	AAFC (Winnipeg)	SeCan Members	AC Metcalfe	U of S - CDC	SeCan Members
AC Cora	AAFC (Winnipeg)	SeCan Members	Manley	AAFC (Brandon)	SeCan Members
AC Domain	AAFC (Winnipeg)	SeCan Members	AC Oxbow	U of S - CDC	SeCan Members
AC Eatonia	AAFC (Swift Current)	Proven Seed	Robust	AAFC (Winnipeg, Brandon)	SeCan Members
AC Elsa	AAFC (Swift Current)	SeCan Members	Standar	U of Minnesota	Cargill Seed, Others
AC Intrepid	AAFC (Swift Current)	SeCan Members	Stein	U of Minnesota	Sask. Wheat Pool
Invader	Agripro Seeds Inc. & UGG	Canterra Seeds	CDC Stratus	U of S - CDC	Proven Seed
Katepwa	AAFC (Winnipeg)	Proven Seed	Tankard	U of S - CDC	Performance Seeds
Laura	AAFC (Swift Current)	SeCan Members	TR 129	U of S - CDC	SeCan Members
AC Majestic	AAFC (Winnipeg)	SeCan Members	TR 139	U of S - CDC	Value Added Seeds
CDC Makwa	U of S - CDC	Cargill Seed	TR145	U of S - CDC	SeCan Members
McKenzie	Saskatchewan Wheat Pool	SeCan Members	BT 941	U of S - CDC	Sask. Wheat Pool
AC Michael	AAFC (Lacombe)	Sask. Wheat Pool	BT 433	U of S - CDC	Sask. Wheat Pool
AC Minto	AAFC (Winnipeg)	SeCan Members	BT 435	U of S - CDC	Proven Seed
Pasqua	AAFC (Winnipeg)	SeCan Members			Proven Seed
Roblin	AAFC (Winnipeg)	SeCan Members			
AC Splendor	AAFC (Winnipeg)	Cargill Seed			
CDC Teal	U of S - CDC	Value Added Seeds			
<b>Canada Prairie Spring Wheat</b>			<b>Feed</b>		
AC Crystal	AAFC (Swift Current)	SeCan Members	Brier	U of S - CDC	SeCan Members
Cutler	University of Alberta		Bronco	W.G. Thompson & Sons Ltd.	Value Added Seeds
AC Foremost	AAFC (Lethbridge, Swift Current, Winnipeg)	SeCan Members	CDC Dolly	U of S - CDC	SeCan Members
Genesis	AAFC (Swift Current)	SeCan Members	CDC Fleet	U of S - CDC	Value Added Seeds
AC Karma	AAFC (Swift Current)	SeCan Members	CDC Guardian	U of S - CDC	SeCan Members
AC Taber	AAFC (Swift Current)	SeCan Members	AC Harper	AAFC (Lethbridge)	SeCan Members
AC Vista	AAFC (Swift Current)	Value Added Seeds	AC Lacombe	AAFC (Lacombe)	SeCan Members
<b>Canada Western Extra Strong</b>			Prospect	W.G. Thompson & Sons Ltd.	Value Added Seeds
Bluesky	AAFC (Beaverlodge)	SeCan Members	AC Rosser	AAFC (Brandon)	SeCan Members
Glenlea	University of Manitoba	Public	Seebe	FCDC (Lacombe)	SeCan Members
Laser	U of AB	Canterra Seeds			
Wildcat	AAFC (Beaverlodge)	SeCan Members			
<b>Durum</b>			<b>Hulless</b>		
AC Avonlea	AAFC (Swift Current)	Value Added Seeds	CDC Candle	U of S - CDC	Sask. Wheat Pool
Kyle	AAFC (Swift Current)	SeCan Members	Condor	FCDC (Lacombe)	SeCan Members
AC Melita	AAFC (Winnipeg)	SeCan Members	CDC Dawn	U of S - CDC	SeCan Members
Plenty	U of S - CDC	SeCan Members	Falcon	FCDC (Lacombe)	Progressive Seeds
Sceptre	U of S - CDC	SeCan Members	CDC Gainer	U of S - CDC	Value Added Seeds
<b>Soft White Spring Wheat</b>			AC Hawkeye	AAFC (Brandon)	Sask. Wheat Pool
Fielder	University of Idaho & USDA; AAFC (Lethbridge)	Public	Phoenix	FCDC (Lacombe)	Progressive Seeds
AC Phil	AAFC (Lethbridge)	Proven Seed	CDC Richard	U of S - CDC	Proven Seed
AC Reed	AAFC (Lethbridge)	SeCan Members	CDC Silky	U of S - CDC	Value Added Seeds
<b>Winter Wheat</b>			<b>Intensive Management</b>		
CDC Clair	U of S - CDC	SeCan Members	Duke	U of S - CDC	SeCan Members
CDC Kestrel	U of S - CDC	SeCan Members	CDC Earl	U of S - CDC	SeCan Members
CDC Osprey	U of S - CDC	Canterra Seeds	Kasota	FCDC (Lacombe)	SeCan Members
<b>Winter Rye</b>			Stetson	Western Plant Breeders	Sask. Wheat Pool
Danko		AB Wheat Pool	Tukwa	FCDC (Lacombe)	SeCan Members
Musketeer	AAFC (Swift Current)	SeCan Members			
Prima	AAFC (Swift Current)	SeCan Members			
AC Rifle	AAFC (Swift Current)	Proven Seed			
<b>Spring Rye</b>			<b>Oat</b>		
Gazelle	U of S	Public	AC Assiniboia	AAFC (Winnipeg)	Canterra Seeds, Proven Seed
ROGO	Svalöf Weibull AB	Agri-Tel Grain Beausjoir, Man.	AC Belmont	AAFC (Winnipeg)	SeCan Members
<b>Triticale</b>			CDC Boyer	U of S - CDC	SeCan Members
AC Alta	AAFC (Swift Current)	Progressive Seeds	Calibre	U of S - CDC	SeCan Members
Banjo	University of Manitoba	Value Added Seeds	Derby	U of S - CDC	Proven Seed
AC Certa	AAFC (Swift Current)	Progressive Seeds	ELVY	Svalöf Weibull AB	Sask. Wheat Pool
AC Copia	AAFC (Swift Current)	Value Added Seeds	AC Juniper	AAFC (Lacombe)	Cargill Seed
Frank	AAFC (Swift Current)	SeCan Members	AC Medallion	AAFC (Winnipeg)	Sask. Wheat Pool
Pronghorn	FCDC (AltaAg)		AC Mustang	AAFC (Lacombe)	Value Added Seeds
Sandro	Swiss Fed Ag Res	Newfield Seeds	CDC Pacer	U of S - CDC	Proven Seed
Wapiti	CIMMYT; Alta Ag	SeCan Members	AC Preakness	AAFC (Winnipeg)	Wheat City Seeds/ Canterra
<b>Barley</b>			Triple Crown	Svalöf Weibull AB	
<b>Malting</b>			<b>Canola</b>		
B1215	Busch Ag. Res. Inc.	Sask. Wheat Pool	<b>Argentine</b>		
B1602	Busch Ag. Res. Inc.	Sask. Wheat Pool	220	NPZ-Svalöf Weibull AB	Cargill Seed

AC	- as a prefix to variety names Agriculture Canada (Agriculture and Agri-Food Canada)
AAFC	- Agriculture and Agri-Food Canada
CDC	- Crop Development Centre
FCDC	- Field Crop Development Centre, Lacombe, Alta.
U	- University
U of S	- University of Saskatchewan, Saskatoon
USDA	- United States Department of Agriculture

Crop kind, Class & Variety	Breeding Institution	Distributor	Crop kind, Class & Variety	Breeding Institution	Distributor
44A89	Pioneer Hi-Bred	Proven Seed	Reward	U of Manitoba	SeCan Members
46A05	Pioneer Hi-Bred	Proven Seed	AC Sunbeam	AAFC (Beaverlodge)	SeCan Members
46A65	Pioneer Hi-Bred	Proven Seed	AC Sunshine	AAFC (Beaverlodge)	Western Grower Seed Corp.
BATTLEFORD	Svalöf Weibull	Sask. Wheat Pool	WESTWIN	Svalöf Weibull AB	Brett-Young Seeds
BEACON	Svalöf Weibull	Farmers Co-op Seed Plant, Rivers, Man.			
Bounty	Svalöf Weibull AB	Proven Seed	<b>Flax</b>		
BRIGADE	Svalöf Weibull AB	Sask. Wheat Pool	AC Emerson	AAFC (Morden)	SeCan Members
CHALLENGER	Svalöf Weibull AB	Newfield Seeds	U of S - CDC	U of S - CDC	SeCan Members
CLAVET	Svalöf Weibull AB	Cargill Seed	Linola™ 989	CSIRO/UGG	Proven Seed
CORONET	Svalöf Weibull AB	Newfield Seeds	AC Linora	AAFC (Morden)	SeCan Members
Crusher	Svalöf Weibull AB	Brett-Young Seeds	AC McDuff	AAFC (Morden)	Proven Seed
DAKINI	Danisco Seeds	Performance Seed	NorLin	AAFC (Morden)	SeCan Members
DEFENDER	Svalöf Weibull AB	Proven Seed	CDC Normandy	U of S - CDC	SeCan Members
Delta	Svalöf Weibull AB	Proven Seed	Somme	U of S - CDC	SeCan Members
OAC Dynamite	U of Guelph	Newfield Seeds	CDC Triffid	U of S - CDC	Value Added Seeds
Eagle	Svalöf Weibull AB	SeCan Members	CDC Valour	U of S - CDC	SeCan Members
Ebony	Limagrains Genetics	Limagrains Canada Seeds Inc.	Vimy	U of S - CDC	SeCan Members
AC Elect	AAFC (Saskatoon)	SeCan Members	AC Watson	AAFC (Morden)	Sask. Wheat Pool
AC Excel	AAFC (Saskatoon)	SeCan Members			
Garrison	Svalöf Weibull AB	Proven Seed	<b>Mustard</b>		
Goliath	Danisco Seeds	Performance Seed	<b>Brown</b>		
AC-H102	AAFC (Saskatoon)	SeCan Members	commercial		Trade
Hudson	Danisco Seeds	Performance Seeds	<b>Oriental</b>		
Hyola 401	Zeneca Seeds	Zeneca Seeds	Cutlass	AAFC (Saskatoon)	Trade
Impact	Svalöf Weibull AB	SeCan Members	Forge	Colman's of Norwich	Humboldt Flour Mills
IMPULSE	Svalöf Weibull AB	Newfield Seeds, Wheat City Seeds	Lethbridge 22A	AAFC (Saskatoon)	Trade
Independence	AgrEvo/AAFC (Saskatoon)	InterAg, Performance Seeds	AC Vulcan	AAFC (Saskatoon)	Sask. Wheat Pool
Innovator	AgrEvo/AAFC (Saskatoon)	Sask. Wheat Pool	<b>Yellow</b>		
Jewel	Limagrains Canada Seeds Inc.	Cargill Seed	Gisilba	Kurt Behm GMBH	Northern Sales
Legacy	Svalöf Weibull AB	Sask Wheat Pool	Ochre	AAFC (Saskatoon)	Trade
LG3220	Danisco Seeds	Limagrains Canada Seeds Inc.	AC Pennant	AAFC (Saskatoon)	Sask. Wheat Pool
LG3260	Limagrains Genetics	Limagrains Canada Seeds Inc.	Tilney	Colman's of Norwich	Proven Seed
LG3650	Limagrains Genetics	Limagrains Canada Seeds Inc.	Viscount	Colman's of Norwich/UGG	Proven Seed
LG3310	Limagrains Genetics	Limagrains Canada Seeds Inc.	<b>Sunflower</b>		
LG3430	Limagrains Genetics	Limagrains Canada Seeds Inc.	Cadet	Mycogen	
Magnum	Limagrains Genetics	Value Added Seeds	Capri	Mycogen	D & R Seeds Ltd.
Mari	Danisco Seeds	Brett-Young Seeds	Comet-C	Mycogen	D & R Seeds Ltd.
OAC Springfield	U of Guelph	Value Added Seeds	IS 7000	Interstate Seeds	Sask. Wheat Pool
Optimum 500	Danisco Seeds	Zeneca Seeds	IS 6111	Interstate Seeds	Sask. Wheat Pool
Quantum	U of Alberta	Sask. Wheat Pool	6230	Pioneer Hi-Bred	Pioneer Hi-Bred
Quest	Alberta Wheat Pool	Sask. Wheat Pool	P6150	Pioneer Hi-Bred	Pioneer Hi-Bred
Sentry	U of Manitoba	Value Added Seeds	SF 128	Cargill Seed	Cargill Seed
Seville	Svalöf Weibull AB	Zeneca Seeds	SF 187	Cargill Seed	Cargill Seed
Sprint	Alberta Wheat Pool	Sask. Wheat Pool	SF 270	Cargill Seed	Cargill Seed
TRAILBLAZER	Limagrains Genetics	Northstar Seeds, Prairie Seeds	Trisun 846	Mycogen	D & R Seeds Ltd.
Trojan	Svalöf Weibull AB	Newfield Seeds	<b>Field Pea</b>		
45A71	Pioneer Hi-Bred	Proven Seed	Alfetta	Cebeco	Performance Seed
46A72	Pioneer Hi-Bred	Proven Seed	Anno	D.L.F. Trifolium-Columbia Seeds	Performance Seed
AC Tristar	AAFC (Saskatoon)	SeCan Members	CDC April	U of S - CDC	Value Added Seeds
Vanguard	Svalöf Weibull AB	Newfield Seeds	Ascona	Cebeco	St. Denis Seed Farm (AB)
<b>Polish</b>			Baroness	Sharpes Int. - Columbia Seeds	Performance Seed
41P04	Pioneer Hi-Bred	Proven Seed	Bohatyr	Selgen-Oseva	Sask. Wheat Pool
41P55	Pioneer Hi-Bred	Proven Seed	CANIS	Svalöf Weibull AB	Newfield Seeds
41P95	Pioneer Hi-Bred	Proven Seed	Carneval	Svalöf Weibull AB	Sask. Wheat Pool
AC Boreal	AAFC (Saskatoon)	SeCan Members	Carrera	Cebeco	Canseed Ltd.
Cash	Svalöf Weibull AB	Newfield Seeds	Clipper		Sask. Wheat Pool
CHINOOK	Svalöf Weibull AB	Limagrains Canada Seeds Inc.	CPB CONCORDE	Cambridge Plant Breeders	Proven Seed
Eclipse	University of Alberta	Alta. Wheat Pool	CPB PHANTOM	Cambridge Plant Breeders	SeCan Members
Eldorado	University of Alberta	Proven Seed	CPB SPITFIRE	Cambridge Plant Breeders	Proven Seed
FAIRVIEW	Svalöf Weibull AB	Sask. Wheat Pool	Danto	L. Dsenfeldt	Brett-Young Seeds
FOOTHILLS	Svalöf Weibull AB	Sask. Wheat Pool	DISCOVERY	Svalöf Weibull AB	Newfield Seeds
Goldrush	Svalöf Weibull AB	Proven Seed	Eiffel	Danisco Seeds	Limagrains Canada Seeds Ltd.
Horizon	Svalöf Weibull AB	Sask Wheat Pool	Emerald	Selgen-OSWA	Sask. Wheat Pool
Hysyn 100	Zeneca Seeds	Zeneca Seeds	ENDEAVOR	Svalöf Weibull AB	Sask. Wheat Pool
Hysyn 110	Zeneca Seeds	Zeneca Seeds	Exchequer	Svalöf Weibull AB	Farmers Co-op Plant, Rivers, Man.
Hysyn 111	Zeneca Seeds	Zeneca Seeds	Explorer	Svalöf Weibull AB	Newfield Seeds
Hysyn 120C5	Zeneca Seeds	Zeneca Seeds	Express	Svalöf Weibull AB	Newfield Seeds
Klondike	Svalöf Weibull AB	Cargill Seed	FLUO	Andre Blondeau-Columbia Seeds	Performance Seed
MAVERICK	Svalöf Weibull AB	Proven Seed	GRANDE	Svalöf Weibull AB	Sask. Wheat Pool
NORWESTER	Svalöf Weibull AB	Sask Wheat Pool	Highlight	Svalöf Weibull AB	Newfield Seeds
AC Parkland	AAFC (Saskatoon)	Northstar Seeds, SeCan Members	Impala	Cebeco	St. Denis Seed Farm (AB)
			Keoma	Antilla P.B. Farm	Sask. Wheat Pool
			Lantra	Cebeco	
			LG110	Danisco Seeds	Limagrains Canada Seeds Ltd.

Crop kind, Class & Variety	Breeding Institution	Distributor	Crop kind, Class & Variety	Breeding Institution	Distributor
Mandy	Mansholt	Terramax	Orion	AAFC (Lacombe)	Roger Lee (AB)
MAJORET	Svalöf Weibull AB	Newfield Seeds	Outlook	U of S - CDC	Lyster Farms Ltd. (AB)
MARCO	Svalöf Weibull AB	Newfield Seeds,	Pegasus	U of Manitoba	SeCan Members
		Wheat City Seeds	Scirocco	NPZ-Lembke	Roy Legumex (MB)
		Sask. Wheat Pool			Agriprogress Inc.
MIKO	PBAI, Poland	Canseed (AB)	<b>Dry Bean</b>		
Montana	Cebeco	Brett-Young Seeds	AC Burrito	AAFC (Harrow)	
MUSTANG	Danisco Seeds	Agriprogress Inc.	CDC Camino	U of S - CDC	Sask. Pulse Growers
Obelisque	Danisco Seeds	Terramax	Fargo	Rogers Brothers Seed Co.	
Olivin	Slovoivo H.S.	Proven Seed	Othello	USDA/ARS (Prosser, WA)	WA & ID seed dealers
ORB	Sharpes International	SeCan Members	Earliray	Gen-Tec	Gen-Tec
CDC Peko	U of S - CDC	Walker Seeds	US 1140	USDA	public
Princess	Wilbur Ellis Co.	SeCan Members	CDC Expresso	U of S - CDC	Specialty Seeds
PROFI	Danisco Seeds	Columbia Seeds (AB)	CDC Nighthawk	U of S - CDC	Value Added Seeds
Radley	Sharps-Columbia Seeds	Brett-Young Seeds	CDC Nordic	U of S - CDC	Sask. Pulse Growers
Ricardo	Cebeco	Wheat City Seeds	GTS523	Gen-Tec	Gen-Tec
Richmond	Svalöf Weibull AB	Brett-Young Seeds	OAC Seaforth	U of Guelph	Trade
Scorpio	Cebeco	Terramax	AC Skipper	AAFC (Lethbridge)	Klempnauer Seeds
Sirius	Inst. P.P.P., Czech Republic	Terramax	92021	U of S - CDC	
Spring D	Danisco Seeds	Brett-Young Seeds	92235	U of S - CDC	Sask. Pulse Growers
AC Tamor	AAFC (Morden)	Euro-Can Seeds Ltd.	92802	U of S - CDC	Sask. Pulse Growers
		Walker Seeds (SK)	92074	U of S - CDC	Value Added Seeds
Tenor	Danisco Seeds	Canterra Seeds			
Topper	AAFC (Morden)	SeCan Members	<b>Chickpea</b>		
TOTEM	Svalöf Weibull AB	Newfield Seeds	<b>Desi</b>		
Trapper	AAFC (Morden)	Public	Myles	USDA/Washington State U	Public
Victoria	Svalöf Weibull AB	Newfield Seeds	<b>Kabuli</b>		
CDC Vienna	U of S - CDC	Western Grower Seed Corp, Walker Seed	B-90		Terramax
		Wheat City Seeds	Sanford	USDA/Washington State U	Public
VOYAGEUR	Svalöf Weibull AB	Newfield Seeds	Dwellely	USDA/Washington State U	Public
Whero	Challenge Seeds	Value Added Seeds	CDC Yuma	U of S - CDC	Sask. Pulse Growers
YORKTON	Svalöf Weibull AB				
<b>Lentil</b>			<b>Canary Seed</b>		
Eston	U of S - CDC	SeCan Members	Elias	U of Minnesota; U of S - CDC	Public
Indianhead	U of S - CDC	SeCan Members	Keet	U of Minnesota; U of S - CDC	Public
Laird	U of S - CDC	SeCan Members	CDC Maria	U of S - CDC	Canadian Special Crops Association
CDC Redwing	U of S - CDC	Sask. Wheat Pool			
CDC Richlea	U of S - CDC	SeCan Members			
<b>Faba Bean</b>			<b>Safflower</b>		
Aladin	University of Manitoba	Public	Saffire	AAFC (Lethbridge)	Jerry Kubic (AB)
CDC Blitz	U of S - CDC		AC Stirling	AAFC (Lethbridge)	SeCan Members
Cresta	Saatban Linz	Agriprogress Inc.	AC Sunset	AAFC (Lethbridge)	Alberta Wheat Pool
CDC Fatima	U of S - CDC	Euro-Can. Seeds Ltd., Walker Seeds (SK)			

The **Advisory Council on Grain Crops**, a committee of the Saskatchewan Agricultural Services Co-ordinating Committee (SASCC), supervises, co-ordinates and reviews the collection, analysis and reporting of information in this pamphlet. Membership of the Advisory Council on Grain Crops consists of representatives from:

- Agriculture and Agri-Food Canada
- Saskatchewan Agriculture and Food
- University of Saskatchewan
- Crop Development Centre
- Saskatchewan Wheat Pool
- Canadian Seed Trade Association
- Saskatchewan Seed Growers' Association
- Saskatchewan Association of Rural Municipalities
- Farmers
- Saskatchewan Irrigation Development Centre
- Representatives from Saskatchewan Seed Distributing Companies

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### Contributing Agencies



**Saskatchewan  
Agriculture  
and Food**



**Agriculture and  
Agri-Food Canada**