2025

Irrigation Saskatchewan

Crop Varieties for Irrigation

IRRIGATION Saskatchewan

Our Mission:

- Lead quality crop, economic and policy research in irrigation
- Advocate to grow and support the irrigation industry
- Respond to the needs of producers and stakeholders

IRRIGATION Saskatchewan

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Using the Variety Guide

Introduction

The yield comparison tables are compiled from irrigated yield tests conducted by Irrigation Saskatchewan (ISask). The data is collected from irrigated co-operative (pre-registration) trials, regional yield trials, agronomic and observational trials, and producer-funded yield trials.

The trials are conducted on small, replicated plots using specialized plot equipment. A high level of management is applied to eliminate differences caused by soil variability, weed pressure, and disease. The aim is to make conditions as uniform as possible so that yield differences are due to the varieties themselves and not some other factor. The yield of small, uniform plots is generally greater than field yields; however, the relative ranking of varieties will be the same. Emphasis is placed on testing varieties with good lodging tolerance, suitable disease resistance, and ease of harvest under irrigated production.

Crop varieties respond differently from year to year. The highest yielding variety one year may be one of the lowest yielding in another year (for example, it may mature late and be at risk of frost). Choosing the highest yielding variety is no guarantee that it will give the highest during the season or on your farm. Selecting a lower ranked variety may be suitable, especially if some other characteristic, such as disease resistance or early maturity, is desired.

Interpreting the Tables

Site Years

One site year is a test performed for one year at one site. A test conducted over 10 years at one site, or one year at ten sites is equal to 10 site years in both cases. Results from less than six site years are reported only when data is limited.

Relative Yield of Varieties

All varieties are compared as a percent of a standard ***check*** variety. The check variety is included in all tests. All other varieties are compared to it. This allows comparisons from year to year, from site to site, and from test to test.

A well-run test performed over a large number of site years can detect yield differences of 2 or 3 percent. Consider four varieties that yield 108, 107, 106, and 102 percent of the check: the top three have produced comparable yields and are higher yielding than the fourth. However, where site years are limited, varieties within 6 or 8 percent cannot be said to be different based on the available data. Further testing is needed to rank the varieties more precisely.

Lodging Ratings

Lodging ratings are reported on a four-point subjective scale. The ratings are based on both numerical ratings and on general field observations throughout the growing season. Lodging varies greatly from year to year and from site to site.

Lodging ratings are subjective, based on the judgment of the researcher. The rankings by ISask have been performed using a consistent method wherever possible. This improves the accuracy of the ranking of the varieties, but does not predict results for any given year, field, or level of management.

Interpreting the Tables (continued)

Agronomic information

Agronomic information includes plant height, days to flowering or maturity, seed size, and quality measurements. Crop height, for example, varies from year to year. Therefore, the agronomic information is useful only as a comparison between varieties. Find a variety you are familiar with and compare others to it to determine whether it is likely to be different.

Disease ratings

ISask does not routinely collect disease ratings for each variety. **Please consult *Varieties of Grain Crops 2025***, a Saskatchewan Ministry of Agriculture annual publication, for disease ratings of specific varieties.

A Word of Caution

Occasionally comparison with the check variety can be misleading. In some years, the check may have an exceptionally low or high yield, skewing the rankings. For example, a new variety with limited site years of data (compared to the long-term check) may rank unusually high if the check performed much worse in a specific year compared to its overall average performance over time. Further testing will even out the variability, and the ranking of the varieties will more closely reflect performance in the field.

Management practices may have a greater impact on yield than choice of variety. For example, seeding date experiments at CSIDC for irrigated flax have shown up to 20 percent yield reduction for late May seeding compared to an early May seeding date. This 20 percent spread is greater than the yield difference between flax varieties.

Plant Breeders' Rights

Plant Breeders' Rights (PBR) ensure that the private sector and institutional crop breeders are afforded reasonable control of their varieties and fair compensation for their efforts. Plant breeders may apply under the Plant Breeders' Rights Act to obtain certain controls over seed increase and seed sales of their varieties.

Sale or any other transfer of ownership of seed protected under the act is prohibited without the written permission of the breeder or the breeder's agent and without payment of a royalty to the breeder or agent. Under PBR, bona fide farmers are allowed to keep seed of the variety for use on their own farms.

Varieties for which plant breeders' rights are in effect or have been applied for at the time of printing are identified by the symbol .

For more detailed information on specific varieties, refer to the annual Saskatchewan Ministry of Agriculture publication, *Varieties of Grain Crops, 2025*. You can find it at the following link:

https://saskseed.ca/seed-guides/

https://www.saskatchewan.ca/business/agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/crops-and-irrigation/crop-guides-and-publications/varieties-of-grain-crops

Flax

Variety	Site Years	Yield as % of CDC Glas	lodging Rating	Days to Maturity	Height (cm)	Seed Colour
AAC Prairie Sunshine	5	99	VG	113	68	brown
AC Marvelous	5	115	VG	109	68	brown
CDC Bethune	14	101	VG	107	70	brown
CDC Buryu	7	81	G	108	69	brown
CDC Esme *	4	107	VG	111	68	brown
CDC Glas	16	100	VG	108	71	brown
CDC Kernen *	4	108	VG	112	69	brown
CDC Neela	8	105	G	108	71	brown
CDC Plava	9	91	G	106	62	brown
CDC Rowland	8	103	VG	110	69	brown
CDC Sanctuary	4	105	F	108	73	brown
Prairie Sapphire	8	108	VG	107	69	brown
Topaz	5	99	VG	107	69	brown
WestLin 60	9	92	VG	107	62	brown
WestLin 71	9	105	VG	109	65	brown
AAC Bravo	7	97	VG	108	68	brown
WestLin 72	9	101	VG	110	67	brown
AAC Bright	7	93	VG	110	68	yellow
CDC Dorado	5	92	G	114	62	yellow
NuLin VT50	9	100	VG	111	62	yellow

Average plot yield of CDC Glas (check): 2,722 kg/ha (43.4 bu/ac)
Lodging: P = poor; F = fair; G = good; VG = very good
PBR in effect or filed
*limited site years, caution required, seek additional information from additional sources

ADDITIONAL INFORMATION

All flax varieties are immune to rust.

Spring Wheat & Durum

Producers are strongly encouraged to use a combination of the Canadian Food Inspection Agency's List of Registered Varieties at:

http://www.inspection.gc.ca

and the Canadian Grains Commission's Variety Designation Lists at:

http://www.grainscanada.gc.ca

to determine the registration and grade eligibility status of varieties.

CANADA WESTERN RED SPRING

Varietal Blend ("VB") designated varieties possess the same *"**SM1**"* gene, which confers tolerance to Orange Wheat Blossom Midge. To manage against the build-up of midge resistance to the *SM1* gene, an ***interspersed refuge*** is used commercially. These varieties are not immune to wheat midge and can suffer midge damage when high midge infestation levels occur. More information on midge tolerant wheat cultivars and interspersed refuge can be found at **http://www.midgetolerantwheat.ca**

AAC Adamant VB has a solid stem which may provide protection against the wheat stem sawfly.

CANADA PRAIRIE SPRING RED

AAC Foray VB is a CPS-red midge tolerant variety using the same ***SM1*** gene as in the CWRS varieties and will be marketed with an interspersed refuge.

CANADA WESTERN SPECIAL PURPOSE

Varieties in the Special Purpose market class have no defined quality attributes and may have specific end-uses. Most varieties are intended for ethanol and livestock feed purposes. Producers are encouraged to contact the variety distributor or developer regarding uses of these varieties.

CANADA WESTERN HARD WHITE SPRING

Varieties in the Hard White market class are intended for whole wheat bread and Yellow Alkaline Noodle Markets.

CANADA WESTERN SOFT WHITE SPRING

AAC Chiffon VB and **AAC Paramount VB** are CWSWS midge-tolerant varieties using the same ***SM1*** gene as in the CWRS varieties and will be marketed with an interspersed refuge. Soft white spring wheat may be used as a feedstock in the production of ethanol. Soft white spring wheat varieties are susceptible to pre-harvest sprouting. The leaf spot pathogens that affect other wheat classes also affect soft white cultivars and therefore, recommendations for leaf spot control are similar.

CANADA WESTERN AMBER DURUM

AAC Donlow, AAC Grainland, **AAC** have a solid stem and are resistant to the wheat stem sawfly. **CDC Flare** is tolerant to the CLEARFIELD® herbicides Adrenalin SC and Altitude FX. Durum wheat varieties are generally more susceptible than CWRS varieties to Fusarium Head Blight (FHB). Although no varieties are resistant, **AAC Schrader** is the only variety with intermediate (I) FHB rating and lower mycotoxin (DON) production by FHB fungi. All durum varieties are susceptible to two new races of loose smut.

Irrigated areas in Saskatchewan are susceptible to fusarium infestations. Sow less susceptible cereal types and varieties on irrigated fields with a history of fusarium head blight. Use fusarium-tested seed to prevent new infestations of irrigated land. Durum is the most susceptible wheat type followed by CWSWS, CPSR, and CWRS. Information on tolerance levels in wheat varieties is available in the Saskatchewan Ministry of Agriculture annual publication: ***Varieties of Grain Crops, 2025***.

Spring Wheat – CWRS and CWHRWS

Variety	Site Years	Yield as % of AAC Brandon	lodging Rating	Height (cm)	Days to Maturity	% Protein +/- AAC Brandon	Head Awns Present
Canada Western Red Spring (CWRS)							
AAC Alida VB *	4	96	VG	91	97	0.7	Y
AAC Brandon	23	100	VG	82	97	13.9	Y
AAC Broadacres VB *	4	99	VG	86	97	-0.3	Y
AAC Cameron VB	7	94	G	100	96	-0.3	Y
AAC Connery	5	86	VG	84	97	0.5	N
AAC Elie	5	95	VG	81	97	0.0	Y
AAC Hockley *	4	98	VG	85	98	-0.2	Y
AAC Hodge	5	97	VG	88	96	-0.2	Y
AAC Leroy VB	6	99	VG	90	95	-0.1	Y
AAC Magnet	6	91	VG	88	96	0.2	Y
AAC Redberry	6	96	VG	89	94	0.0	Y
AAC Redstar	5	89	VG	91	96	-0.2	Y
AAC Russell VB *	4	95	VG	88	96	-0.6	Y
AAC Starbuck	5	105	VG	86	99	0.1	Y
AAC Tisdale	5	95	VG	89	96	0.6	Y
AAC Viewfield	5	105	VG	81	99	0.0	Y
AAC Wheatland VB	5	111	VG	85	99	-0.2	Y
Bolles	4	94	VG	84	98	0.2	Y
Carberry	17	92	VG	84	97	0.4	Y
Cardale	7	98	VG	88	94	0.4	Y
CDC Envy *	4	99	VG	87	95	-0.6	Y
CDC Silas *	4	103	VG	88	98	-0.4	Y
CDC SKRush *	4	99	VG	90	96	-0.4	Y
CDC Stanley	5	94	G	92	96	0.5	N
CDC Titanium VB *	4	95	F	94	95	1.2	Y
CDC Utmost VB	10	99	G	93	95	0.3	N
Daybreak	5	103	VG	89	97	-0.3	Y
Ellerslie	6	94	VG	90	95	-0.4	N
Jake *	4	94	VG	88	95	0.3	Y
Rednet *	4	94	VG	99	96	-0.6	Y
Sheba *	4	94	VG	90	97	-0.8	N
Stettler *	4	97	G	92	96	1.4	Y
SY Brawn VB *	4	85	VG	91	95	-0.1	Y
SY Cast *	4	100	VG	86	97	-0.1	Y
SY Crossite *	4	103	VG	91	97	-0.7	Y
SY Manness *	4	98	VG	84	97	-0.7	Y
SY Obsidian	5	94	VG	85	96	-0.2	Y
Canada Western Hard White Spring (CWHWS)							
AAC Tomkins *	4	87	VG	86	97	0.0	Y
AAC Whitehead VB *	4	102	VG	85	97	-0.7	Y

Average plot yield of AAC Brandon (check): 5,903 kg/ha (87.8 bu/ac)
Lodging: P = poor; F = fair; G = good; VG = very good

PBR in effect or filed

*limited site years, caution required, seek additional information from additional sources

ADDTIONAL INFORMATION

A number of newer registered varieties still need to be included in the spring wheat table due to insufficient site years of testing. However, these varieties may have been evaluated; for inquiries about those not listed above, please get in touch with Ashebir Godebo, Ph. D (see page 1). Some of the newer varieties listed in the table (*) have limited years of data; select these varieties with caution.

Spring Wheat – CWSP and CPSR

Variety	Site Years	Yield as % of AAC Brandon	lodging Rating	Height (cm)	Days to Maturity	% Protein +/- AAC Brandon	Head Awns Present
Canada Western Special Purpose (CWSP)							
AAC Awesome VB *	3	129	VG	88	101	-2.8	Y
KWS Alderon *	3	135	VG	75	106	-3.0	N
KWS Sparrow VB *	3	129	VG	82	105	-2.7	N
Pasteur *	4	115	VG	87	104	-1.5	N
WPB Whistler *	4	125	VG	82	103	-1.7	N
Canada Prairie Spring (CPSR) – Red Seeded Wheat							
AAC Foray VB *	4	119	G	89	99	-1.5	Y
AAC Penhold *	4	120	VG	76	96	-1.0	Y
Accelerate *	3	96	VG	75	95	-0.7	Y
CDC Reign *	3	97	VG	83	99	-1.5	Y

Average plot yield of AAC Brandon (check): 5,903 kg/ha (87.8 bu/ac)
Lodging: P = poor; F = fair; G = good; VG = very good

PBR in effect or filed

*limited site years, caution required, seek additional information from additional sources

Soft White Wheat

Variety	Site Years	Yield as % of AC Andrew	Height (cm)	Days to Maturity	% Protein +/- AC Andrew	Head Awns Present
Canada Western Soft White Spring (CWSWS)						
AAC Paramount VB *	4	112	89	101	0.1	Y
AAC Chiffon VB *	4	104	99	103	-0.1	Y
AC Andrew	21	100	88	102	11.5	Y
Sadash	19	95	88	102	-0.2	Y

Average plot yield of AC Andrew (check): 6,848 kg/ha (101.8 bu/ac)
Lodging: P = poor; F = fair; G = good; VG = very good

PBR in effect or filed

*limited site years, caution required, seek additional information from additional sources

Durum

Variety	Site Years	Yield as % of AAC Schrader	lodging Rating	Height (cm)	Days to maturity	% Protein +/- AAC Schrader	Head Awns Present
Canada Western Amber Durum (CWAD)							
AAC Antler	6	98	G	94	102	-	Y
AAC Donlow	6	98	G	93	103	-0.2	Y
AAC Goldnet	6	96	G	94	103	0.0	Y
AAC Grainland	4	92	VG	95	104	0.5	Y
AAC Schrader	8	100	G	96	102	-	Y
AAC Weyburn VB	8	97	G	92	103	-	Y
CDC Covert	6	93	VG	89	102	0.1	Y
CDC Defy	6	103	VG	97	102	-0.3	Y
CDC Evident	6	101	G	91	103	-	Y
CDC Flare	4	89	VG	91	102	0.3	Y
CDC Precision	4	87	VG	90	103	0.4	Y
CDC Vantta	8	99	VG	85	104	-	Y

Average plot yield of AAC Schrader (check):6,465 kg/ha (96.1 bu/ac)
Lodging: P = poor; F = fair; G = good; VG = very good

PBR in effect or filed
The check variety changed from **Strongfield** to **AAC Schrader** this year.

Malt Barley

Malting Variety	2 or 6 Row	Site Years	Yield as % of AAC Synergy	% Protein +/- AAC Synergy	Lodging Rating	Height (cm)	Days to Maturity
Malting Acceptance: Recommended							
CDC Churchill	2-row	7	103	-0.4	G	82	90
AAC Connect	2-row	5	100	0.2	G	84	88
AAC Synergy	2-row	12	100	0.0	G	87	89
CDC Fraser	2-row	7	101	-0.2	G	85	91
CDC Copeland	2-row	7	97	-0.1	G	92	90
Additional Malting Varieties							
CDC Goldstar	2-row	4	100	0.0	G	89	89
Torbellino	2-row	4	104	-0.8	G	76	91
AC Metcalfe	2-row	12	88	0.6	G	88	89
CDC Bow	2-Row	7	99	0.0	G	84	91
CDC Copper	2-row	5	105	-0.2	G	79	91
CDC PlatinumStar	2-Row	4	90	0.1	F	91	90
Malting Acceptance: In Development							
AAC Prairie	2-row	4	99	-0.2	G	82	89
AB BrewNet	2-row	5	95	0.1	G	91	92

Average plot yield of AAC Synergy (check): 8,295 kg/ha (154.2 bu/ac)
PBR in effect or filed.
Lodging: P = poor; F = fair; G = good; VG = very good
Although not on the CMBTC list, a malting barley market may exist for these varieties.

ADDITIONAL INFORMATION

A number of newer registered varieties still need to be included in the malt barley table due to insufficient site years of testing. However, these varieties may have been evaluated; for inquiries about those not listed, please get in touch with Ashebir Godebo, PhD (see page 1).

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

Information on recommended malting barley varieties can be found on the Canadian Malting Barley Technical Centre (CMBTC) website at **www.cmbtc.com** or call (204) 984-4399.

LINES UNDER TEST

Commercial acceptability of malting varieties is given only after two years of successful plant-scale evaluation. Several carload lots of barley are malted and brewed, then subjected to a taste panel. This process normally takes a minimum of three years, since a crop grown in one year will be malted in January to February, brewed in May-June, and aged and tasted in October to November of the following year.

Growers are cautioned that most malting varieties, especially two-row barley, are more susceptible to sprouting.

CDC PlatinumStar and **CDC Goldstar** are available only through a closed loop Identity Preserved program offered by Prairie Malt Limited/Sapporo Breweries and their agents.

Feed & Food Barley

Feed and Food Variety	2 or 6 Row	Site Years	Yield as % of AAC Synergy	% Protein +/- AAC Synergy	Lodging Rating	Height (cm)	Days to Maturity
Hulled							
Sirish	2-row	4	92	-0.2	VG	74	92
CDC Austenson *	2-row	3	101	-0.1	VG	86	90
AB Cattlelac	6-row	5	103	0.7	G	94	91
Altorado	2-row	4	99	0.0	G	83	91
AB Hague *	2-row	4	103	-0.7	G	92	90
AB Prime *	2-row	3	102	-0.2	G	87	90
AAC Synergy	2-row	12	100	0.0	G	87	89
AB Tofield	6-row	5	110	-1.2	G	89	91
Bighorn *	2-row	4	113	-0.5	G	84	89
Cantu *	2-row	4	111	-0.8	G	89	89
CDC Durango *	2-row	4	107	0.0	G	88	91
Ibex *	2-row	3	107	-0.2	G	88	89
AB Wrangler	2-row	5	100	0.0	G	85	89
Canmore	2-row	4	87	0.2	G	87	91
AB Advantage	6-row	5	103	0.4	G	98	92
Claymore	2-row	4	105	0.1	G	88	91
Oreana	2-row	4	96	0.2	F	77	91
CDC Maverick	2-Row	4	75	1.0	F	102	91
CDC Renegade *	2-row	4	99	-0.2	F	92	90
Hulled Varieties being tested for adaptability in Western Canada							
Esma	2-row	5	100	-0.4	G	73	90
KWS Kellie	2-row	5	96	-1.0	G	70	90
RGT Planet *	2-row	4	104	-0.9	G	78	90
Hulless							
CDC Clear	2-row	4	81	-0.3	VG	96	92

Average plot yield of AAC Synergy (check): 8,295 kg/ha (154.2 bu/ac)

PBR in effect or filed.

Lodging: P = poor; F = fair; G = good; VG = very good

*limited site years, caution required, seek additional information from additional sources

ADDITIONAL INFORMATION

A number of newer registered varieties still need to be included in the feed barley table due to insufficient site years of testing. However, these varieties may have been evaluated; for inquiries about those not listed above, please contact Ashebir Godebo, PhD (see page 1). Some of the newer varieties listed in the table (*) have limited years of data; select these varieties with caution.

Most available varieties are susceptible to one or more types of smut. Therefore, seed of susceptible varieties should be treated with a registered fungicide regularly.

Harvesting grain that is < 16% moisture and using aeration bins for drying can lead to sprouting and embryo death. Seed with reduced germination is undesirable for seed or malting.

Two-row barley varieties are generally more resistant to shattering than six-row varieties.

AB Advantage, AB Cattlelac and AB Tofield are six-row forage varieties, **CDC Maverick is** two-row forage variety.

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

Disease resistance, straw strength and maturity are more critical when barley is grown under irrigation. Growers should select early, strong-strawed, disease-resistant varieties. For more information, refer to the Saskatchewan Ministry of Agriculture annual publication, ***Varieties of Grain Crops, 2025***.

Oat

Variety	Site Years	Yield % of CDC Camden	% Protein +/- CDC Camden	Test Weight (g/0.5L)	lodging Rating	height (cm)	Days to Maturity	Hull Colour
CDC Morrison *	3	81	1.8	261	VG	102	93	Yellow
ORe3542M	4	88	-0.5	259	VG	102	97	White
CDC Dancer	5	82	-0.8	271	VG	109	93	White
CDC Arborg	4	108	-0.4	262	VG	114	95	White
CDC Endure	4	93	-1.0	252	VG	108	94	White
AAC Douglas	5	82	-0.6	253	P	102	93	White
Kalio *	4	89	-0.7	259	P	103	93	White
Ore Level 48 *	4	85	-0.5	257	F	98	94	White
Ore Level 50 *	4	88	-0.9	257	P	100	95	White
AAC Wesley *	4	97	-1.5	248	F	95	94	White
CS Camden	10	100	12.9	253	VG	101	93	White
CDC Norseman	4	90	0.3	248	VG	108	95	White
CDC Ruffian *	3	86	0.0	266	F	97	94	White
CDC Haymaker	4	83	0.5	228	F	108	98	White

Average plot yield of CS Camden (check): 7,184 kg/ha (200.2 bu/ac)
PBR in effect or filed
Lodging: P = poor; F = fair; G = good; VG = very good
*limited site years, caution required, seek additional information from additional sources

ADDITIONAL INFORMATION

Crown rust races capable of attacking most varieties, except those with an MR or R rating (see Saskatchewan Ministry of Agriculture publication, *Varieties of Grain Crops, 2025,* for disease ratings), are increasing in southeast Saskatchewan. Irrigators should monitor their crop. Early seeding will reduce the likelihood of severe infection.

Producers growing oats for the milling market are advised to check the "approved" varieties list available from the various oat millers.

CDC Haymaker is a forage oat variety available for annual forage production.

False Oats or Fatuloids. False wild oats, or fatuloids, are off-types within common oat fields that have an appearance similar to wild oat, most notably a prominent, dark awn and increased hairiness at the base of each floret. They are thought to result from the infrequent cross-pollination between common oat (*Avena sativa*) and true wild oat (*Avena fatua*). As such, their presence will likely be observed more often in fields planted from farm-saved seed. They have been reported within fields of common oat at rates up to 1% and occur within all oat varieties.

Winter Wheat

Variety	Site Years	Yield as % of CDC Buteo	Lodging Rating	Height (cm)	Days to Maturity +/- CDC Buteo	% Protein +/- CDC Buteo	Head Awns Present
Canada Western Red Winter (CWRW)							
CDC Buteo	9	100	G	94	0	11.0	Y
AAC Elevate	6	103	VG	85	0	-0.1	Y
Moats *	4	111	VG	97	1	0.5	Y
AAC Gateway	7	95	VG	79	0	1.0	Y
AAC Wildfire	8	101	G	87	3	-0.2	Y
AAC Goldrush	5	92	VG	90	-1	0.7	Y
Radiant	9	101	VG	92	2	-0.5	Y
CDC Buteo	9	100	G	94	0	0.0	Y
AAC Network	6	95	G	78	2	0.1	Y
AAC Vortex *	4	104	G	86	1	0.3	Y
Emerson	6	95	VG	90	2	1.0	Y
Canada Western Experimental (CW Experimental)							
AAC Icefield *	4	97	VG	81	3	-0.3	Y
Canada Western Special Purpose (CWSP)							
Pintail *	4	108	G	92	3	-0.9	N

Average plot yield of CDC Buteo (check): 6,371.5 kg/ha (94.7 bu/ac)
Lodging: P = poor; F = fair; G = good; VG = very good

PBR in effect or filed.
*limited site years, caution required, seek additional information from additional sources

ADDITIONAL INFORMATION

Winter wheat can be grown successfully in most areas if seeded into standing stubble within the optimum seeding period (generally before Sept. 15) and if there is adequate snowfall. Under irrigation, the previous crop may not be harvested by Sept. 15, but winter wheat is an option for early harvests or fields where a crop has failed (hail). Winter cereals assist in minimizing soil erosion loss.

Winter wheat will often escape fusarium head blight and orange wheat blossom midge damage if recommended seeding dates are followed. Our experience also indicates in-season herbicide applications can sometimes be eliminated by the early regrowth of winter wheat out competing weeds.

Radiant and **AAC Elevate** have tolerance to the wheat curl mite vector that transmits Wheat Streak Mosaic Virus. To preserve effectiveness of this wheat curl mite tolerance gene, agronomic practices that eliminate the “green bridge” of plant material that provides a reservoir for the mite should be followed whenever possible.

AAC Wildfire expresses tolerance to some biotypes of the Russian wheat aphid. **AAC Wildfire** and **Radiant** express bronze chaff at maturity.

AAC Icefield is a hard white winter wheat eligible for experimental grades under an Identity Preserved system to facilitate market research. AAC Icefield expresses qualities that may interest niche markets; for more information, contact FP Genetics.

Varieties in the Special Purpose market class have no defined quality attributes and may have specific end uses. Most varieties are intended for ethanol and livestock feed purposes. Producers are encouraged to contact the variety distributor or developer regarding specialty uses of these varieties. The awnless head of Pintail may improve palatability when harvested for forage or silage.

Fall Rye

Variety	Site Years	Yield as % of Hazlet	lodging Rating	Height (cm)	Days to Maturity +/- Hazlet	% Protein +/- Hazlet	Volume Weight (kg/hl)	Seed Weight (mg)
Open-Pollinated								
Hazlet	8	100	VG	112	0	10.9	74.1	37.5
Danko	4	87	VG	115	0	0.8	73.6	37.0
Prima	8	93	VG	124	-3	-0.1	73.9	36.6
Hybrid Varieties								
KWS Daniello	4	118	VG	106	2	-0.4	72.2	36.5
KWS Trebiano	4	129	VG	106	-1	-0.7	73.3	37.1
KWS Bono	7	129	VG	100	-1	-0.6	73.2	36.8
KWS Serafino	4	130	VG	101	-1	-0.9	73.0	36.9
KWS Gatano	4	121	VG	103	2	-0.6	72.8	36.8

Average plot yield of Hazlet (check): 6,860 kg/ha (109.3 bu/ac)
Lodging: P = poor; F = fair; G = good; VG = very good
PBR in effect or filed
Volume weight multiply by 0.8 = lbs/bu
For Falling Number refer to the *Varieties of Grain Crops, 2025*.

ADDITIONAL INFORMATION

Fall rye is much more cold tolerant than winter wheat or winter triticale, with field survival being approximately 30 to 100% better than winter wheat for current fall rye varieties.

A major factor in marketing rye grain into the milling market is sprouting. This is generally measured using the Hagberg falling number test and is measured in seconds. Typically, a falling number of 180 seconds or greater is preferred by the rye milling market. Falling number is heavily influenced by moisture around harvest time, and producers must ensure rye is harvested in a timely manner, similar to wheat crops. There is considerable variation in fall rye varieties for falling number; this must be considered if the milling market is the targeted end-user for rye grain.

Very little recent information on shattering in rye has been obtained; as it has not been observed in field trials recently, thus no information is available for recently released varieties.

All rye varieties are susceptible to ergot.

Our experience also indicates that in-season herbicide applications can sometimes be eliminated by the early, vigorous regrowth of fall rye out competing weeds.

Field Pea

Variety	Site Years	Yield % of CDC Amarillo	Days to Maturity	Vine Length (cm)	Lodging Rating	Seed Weight (g/1000)
Yellow						
CDC Amarillo	11	100	93	94	G	239
CDC Meadow	8	86	91	85	G	207
CDC Saffron	8	88	92	82	G	239
CDC Inca	9	108	93	93	G	235
CDC Golden	7	90	91	84	F	207
AAC Ardill	6	96	93	90	G	246
CDC Spectrum	7	100	96	87	G	246
Abarth	5	98	90	94	G	275
CDC Canary	4	106	91	94	F	243
CDC Lewochko*	4	96	94	97	G	405
Maple						
CDC Blazer	4	97	97	89	F	190
CDC Mosaic	4	64	94	88	G	160
Green						
CDC Limerick	9	92	95	88	G	208
CDC Striker	8	82	92	79	F	247
CDC Raezer	8	90	92	92	G	231
CDC Spruce	7	102	95	92	G	259
CDC Greenwater	6	92	95	95	G	235
CDC Forest*	4	95	94	90	G	242
Forage						
CDC Horizon	4	62	93	89	G	158
Dun						
CDC Dakota	8	92	96	88	G	212

Average plot yield of CDC Amarillo (check): 5,650 kg/ha (84.0 bu/ac)

PBR in effect or filed

Lodging: VP = very poor; P = poor; F = fair; G = good

*limited site years, caution required, seek additional information from additional sources

ADDITIONAL INFORMATION

The following varieties have purple flower colour and pigmented seed coats: **CDC Mosaic** and **CDC Dakota**. **CDC Mosaic** has a maple-patterned seed coat, and **CDC Dakota** has a solid dun (tan) coloured seed coat. All other varieties have white flower colour and non-pigmented seed coats.

All pea varieties will lodge under irrigation. Those with better lodging tolerance will stand later into the season. These varieties tend to be less affected by disease, fill more fully, and generally produce a higher yield with superior seed quality.

For detailed production information, consult the ***Pulse Production Manual*** published by the Saskatchewan Pulse Growers.

Dry Bean – Narrow Row

ADDITIONAL INFORMATION

The narrow row dry bean trials are sown on 20 cm (8") row spacing to evaluate performance in a solid seeding management practice.

The pod clearance rating is a measure of the proportion of pods held 5 cm (2") or more above ground level. This gives an indication of the suitability for harvest using a direct-cut harvest system. Varieties with higher pod clearance ratings will normally have lower harvest losses.

The narrow-row variety trials are a separate test from the wide-row trials. These tests are not designed to compare conventional wide-row and solid-seeded management. **Narrow row yields and variety rankings cannot be compared to wide row yields and variety rankings in these tables**.

Variety	Plant Type	Site Years	Yield as % of CDC Blackstrap	Days to Maturity	Seed Weight (g/1000)	Pod Clearance Rating[1]
Black						
CDC Blackstrap	II	15	100	94	204	84
CDC Jet	II	8	103	99	200	79
CDC Superjet	II	8	101	99	184	77
Flor de junio						
CDC Ray	III	5	105	99	302	67
Navy						
AAC Shock	II	5	88	99	212	82
Bolt	II	6	103	98	192	85
Portage	II	8	90	98	178	83
Pinto						
AC Island	II	11	123	95	362	71
CDC Whitetrack *	II	3	82	101	206	77
CDC WM-2	II	8	106	93	369	73
CDC WM-3 *	II	3	88	96	372	76
Medicine Hat	II	6	115	95	337	78
Yellow						
CDC Sunburst *	I	4	97	93	386	76

Average plot yield of CDC Blackstrap (check): 4,671 kg/ha (4,168.8 lb/ac)

PBR in effect or filed.

[1]Pod clearance rating = % of pods that completely clear the cutter bar at time of swathing

*limited site years, caution required, seek additional information from additional sources

ISask switched this year from **AC Island** to **CDC Blackstrap** for *Narrow row* as the check variety.

Wide-row trials were discontinued in 2022; therefore, the table above does not encompass the newer varieties released in the past two years. The recent varieties developed for dry bean breeding programs in western Canada are specifically designed for narrow-row production.

Faba Bean

ADDITIONAL INFORMATION

In the 2025 Variety Guide, the check variety for coloured-flower faba bean has changed from Fatima to Fabelle, and for white-flower faba bean from Snowbird to Navi, to align with the Provincial Check Varieties.

Faba bean is late maturing and should be sown early for best results.

White-flowered types are zero tannin. All coloured flower types have seed coats that contain tannins and are considered suitable for food markets if seed size and quality match customer demand.

Variety	Site Years	Yield as % of check	Days to Maturity	Seed Weight (g/1000)
Coloured Flower				
Fabelle	4	100	115	493
Allison*	1	93	116	485
Dosis*	1	95	111	400
Futura*	1	106	114	507
Hammer*	1	114	113	509
White Flower				
Navi	4	100	118	397
DL Nevado*	3	98	114	427
CDC 1089*	1	94	114	367
CDC 1142*	1	75	114	662
CDC 1310*	1	87	116	335
Juno*	1	86	112	488

Average plot yield of Fabelle (Coloured check): 5,530 kg/ha (4,933.8lb/ac)
Average plot yield of Navi (White check): 5,342 kg/ha (4,766.7lb/ac)
PBR in effect or filed
*limited site years, caution required; seek additional information from additional sources.

Soybean

Soybean is a potential new legume crop that may have promise within the irrigated areas of Saskatchewan. By definition, soybean is not a "pulse crop." The Food and Agricultural Organization (FAO) categorizes pulse crops as those harvested solely for the dry seed, such as field pea, dry bean, and lentil. Soybean is primarily grown for its oil content, although its meal is also a commodity. In practical terms, consider soybean as an oilseed crop with the ability to fix nitrogen!

Variety	Type	Site Years	Yield as % of NSC Watson RR2Y	Relative Maturity	Days to Maturity	Height (cm)	Lodge Rating	Seed Weight (g/1000)	Hilium Colour
Akras R2	RR2	11	107	00.3	121	81	VG	142	BL
Amirani R2	RR2	4	90	000.5	114	80	VG	163	IY
Briggs R2X	RR2X	4	93	000.7	116	80	VG	131	BL
CP000621WPRX	RR2X	6	95	000.6	113	73	VG	134	Y/BL
DKB0005-03	RR2X	5	105	000.5	115	73	VG	143	BR
DKB0008-87	RR2X	5	99	000.8	118	76	VG	130	BL
DKB001-07	RR2X	6	95	00.1	116	90	VG	132	BL
DKB002-32	RR2X	4	96	00.2	119	78	VG	129	BR
Mahony R2	RR2	11	105	00.3	121	85	VG	145	BL
Major R2X	R2X	5	107	00.2	114	78	VG	128	BR
NSC Watson RR2Y	RR2	21	100	00.1	112	75	VG	149	IY
PV 16s004 R2X	RR2X	3	107	00.4	127	90	VG	149	BL
PV 22s002 R2X	RR2X	7	96	00.2	117	87	VG	149	BL
PV 28s001 R2X	RR2X	3	88	00.1	115	79	VG	136	BL
S0009-F2X	RR2X	3	104	000.9	114	79	VG	128	BR
S001-D8X	RR2X	6	105	00.1	107	76	VG	126	IY
TH 33003R2Y	RR2	16	104	00.3	119	90	VG	139	BR
TH 87003 RR2X	RR2X	5	105	003	122	89	VG	145	BL
Wolf R2X	RR2X	4	97	000.7	115	80	VG	143	BL
Young R2X	R2X	5	100	000.9	116	86	VG	154	BL

Average plot yield of NSC Watson RR2Y (check): 3,541 kg/ha (3,159.2 lb/ac, 52.7 bu/ac)

PBR in effect or filed

Varieties are either RRI = Roundup Ready 1 or R2Y = Genuity Roundup Ready 2 Yield®

Hilum is the point where the seed attaches to the pod: BR = Brown, BL = Black, TN = Tan, IY = Imperfect Yellow, YE = Yellow

ADDITIONAL INFORMATION

In North America, soybean varieties are classified into maturity groupings from 9 in the southern USA to 1 or 0 in southern Ontario. 00 refers to shorter season varieties than 0 types, while 000 refers to shorter season varieties than 00 types. The decimal point notation refers to differences within a class; for example, 00.1 should be a shorter season variety than 00.2.

For a complete list of commercial varieties, see **Seed Manitoba (www.seedmb.ca)**.

Soybean - Notes

Experience in commercial production in Saskatchewan is limited. However, the following considerations, based upon established soybean producing areas, should be considered:

- Limit first time acreage - start slowly.
- Select an early maturing variety. Relative maturity ratings are assigned by individual seed companies; growers should not rely on only one source for judging maturity.
- Best suited to medium to light (irrigated) soils. Heavy textured soils may cause planting and emergence problems such as compaction and crusting. However, heavier textured soils can produce soybean well once the crop is established.
- Despite their long maturity, do not seed too early! Soil temperatures need to warm to, or exceed, 10°C. Similar to dry bean, the warmer the soil, the quicker the emergence. Cool soil temperatures can result in seed rot and pathogenic seedling diseases. Treat with a recommended fungicide seed treatment.
- Target a plant population of 445,000 to 495,000 plants/ha (180,000 to 200,000 plants/ac). Emergence should ensure 40 plants/m^2 (4 plants/ft^2). Soybean varieties differ in seed size, so equipment calibration is required to achieve successfully established populations.
- Seeding depth should be approximately 2.0 to 3.8 cm (0.75 to 1.5”) as soybean are sensitive to deep seeding.
- **INOCULATE** – soybean require a specific species of rhizobia not native to our soils. Failure to inoculate with a “soybean” specific inoculant will result in complete nitrogen fixation failure! For the first- and second-time soybean is planted on any field, growers are advised to use a full rate of granular inoculant coupled with a liquid seed-applied inoculant. Though inoculant costs exceed those of pea/lentil, they are warranted.
- Generally, soybeans are not as efficient as pea/lentil/faba bean in terms of nitrogen fixation and are more similar to dry bean. Should plants start yellowing by or during flowering, consider a top-dress application of 45 to 55 kg N/ha (40 to 50 lbs N/ac) and irrigate with 0.6 to 1.25 mL/ha (0.25 to 0.5“/ac).
- Do not exceed 22 P_2O_5 kg/ha (20 lbs P_2O_5/ac) seed-placed phosphorus in solid seeded production. Soybean is an efficient “scavenger” of soil phosphorus, but these phosphorus rates may be insufficient for soils with low soil phosphorus reserves. Higher rates need to be side banded. For row cropped production reduce seed row rates. Side band applications are recommended.
- Weed control is essential, as soybean seedlings are non-competitive. Cultivation can be used in wide row production. For both conventional and herbicide tolerant varieties, refer to the Saskatchewan Ministry of Agriculture annual publication, ***Guide to Crop Production, 2025*** for herbicide options.
- Wireworms and grasshoppers may be the primary insect pests in irrigated areas.
- Sclerotinia (white mold) can affect soybean. Sufficient separation from pulses and canola in crop rotation is important.
- A killing frost will likely dictate time of harvest. A killing frost will not degrade the oil quality of the crop but will diminish seed size of later maturing top pods. Soybean varieties tested have excellent lodging resistance, so that they can be direct combined. Combine when seed moisture is less than 20% and adjust cylinder speed and concave clearance to minimize cracking or splitting of seed. Safe seed storage is 12% moisture or less.

ANNEX – Discontinued Trials

This annex is provided to present the results of discontinued variety trials conducted in previous years as part of the activities of Irrigation Saskatchewan (ISask) or in collaboration with other institutions. Some trials have not been updated for several years due to the absence of new testing initiatives or limited funding.

The annex contains field trial results for a variety of agricultural crops including canola, dry beans, corn, alfalfa, oats, triticale, barley, timothy, and other forage and grain species. The data includes yield performance, days to maturity, seed weight, lodging resistance, and other agronomic and quality characteristics.

The purpose of this annex is to preserve and share the accumulated empirical knowledge with a broad audience from agronomists and researchers to producers and policymakers interested in the development of irrigated agriculture. While the information can serve as a useful reference for preliminary analysis and decision-making, it should be noted that some results are based on single-year or older trials and should be interpreted with caution.

Canola

Canola Variety Trial

The Canola Performance Trials (CPT) were canceled in 2022, and ISask staff took the initiative and conducted independent and self-funded Canola variety trail (CVT). The ISask-CVT aims to provide relevant, unbiased canola variety performance data on a selection of leading and newly introduced varieties.

The Canola Variety Trail includes small plot trials conducted under irrigation at the ISask research station in Outlook, SK. This was the first year of the independent canola variety trail. ISask staff contacted multiple companies for canola entries to enter the field trails. ISask staff proactively reached out to multiple companies, inviting their canola entries for the field trial. In 2023, three companies enthusiastically submitted their varieties/experimental lines, totaling 10 varieties for the field trials. Notably, all the varieties were straight-cut, and herbicide resistance was specifically tailored for Liberty Link. In 2024, the trial failed and no further trials have been conducted. If you'd like to see ISask continue these please reach out to ISask.

ISask acknowledges the support from BASF-Canada, Nutrien, and Canterra Seeds to conduct this trial and expresses its appreciation for the permission to publish the CVT trial results.

Caution

Producers must be aware that the results presented in the tables below represent the results from a **single-year** trail. Results may or may not represent true varietal comparisons and differences over multiple years of testing. ISask trials were deemed conducted in a Long Season Zone.

Canola Variety Trial – Straight Cut Varieties

Variety*	Distributor	Yield as a% of InVigor L343PC	TKW (g)	Days to Maturity	Lodge Rating
Liberty Link					
4005A470-09	Nutrien	92	3.3	93	VG
CS4000 LL	Canterra Seeds	81	3.0	93	VG
DKLL 84CRSC	Nutrien	79	3.5	94	VG
InVigor L340PC	BASF	102	3.3	93	VG
InVigor L343PC	BASF	100	3.0	93	VG
InVigor L345PC	BASF	92	2.9	94	VG
InVigor L356PC	BASF	95	3.1	94	VG
PV661LCM	Nutrien	74	3.0	94	VG
PV680LC	Nutrien	85	3.3	94	VG
PVCAN 23LL	Nutrien	86	3.0	93	VG

Average plot yield of InVigor 343PC (check): 3,991 kg/ha (71.2 bu/ac)
TKW – Thousand Kernel Weight (g)
Lodging is measured on the degree of lean to the lower stem of the plant on a 1 to 5 scale (1=erect, 5=flat
*Each variety had three replications, and the average results are shown.

Additional Information

Clubroot is a serious soil-borne disease of canola. In 2018, clubroot was found in crop district 6B, in which the South Saskatchewan River Irrigation District is located. Currently, there are no economical control measures that can remove the disease from infected canola fields. Sanitation and crop rotation are the most effective methods of prevention. Information about clubroot is available at the following website: **https://www.canolacouncil.org/canola-encyclopedia/diseases/clubroot/**

All varieties in the preceding tables have a resistant (R) rating for blackleg. Lesions and yield loss can still occur, based on the level of inoculum and blackleg pathotype in the field, in combination with environmental conditions conducive to disease development.

Dry Bean – Wide Row

Variety	Plant Type	Site Years	Yield as % of AC Island	Days to Maturity	Seed Weight (g/1000)	Pod Clearance* (%)
Pinto						
AC Island	II	27	100	100	384	64
Medicine Hat	II	10	99	100	368	67
AAC Burdett	II	8	99	95	385	78
Othello	III	9	91	100	364	na
CDC WM-2	II	15	86	98	396	62
Winchester	II	25	85	97	361	73
AAC Explorer	II	7	79	99	375	65
CDC Pintium	I	4	72	95	401	na
Black						
AAC Black Diamond II	II	10	91	99	276	74
AC Black Diamond	II	27	88	99	279	78
Black Violet	II	12	86	101	198	na
CDC Blackcomb	II	9	76	97	193	78
CDC Jet	II	4	68	102	196	na
Great Northern						
AAC Tundra	II	16	88	98	373	68
AAC Whitehorse	II	11	87	97	393	70
AAC Whitestar	II	9	87	97	401	75
AC Resolute	II	26	76	97	360	72
Pink						
Viva	III	11	85	102	275	na
Small Red						
AC Redbond	II	15	87	95	333	64
Yellow						
AC Y015	I	7	57	101	407	66
AC Y012	I	7	56	101	397	65

Average plot yield of AC Island (check): 4,196 kg/ha (3,743 lb/ac)

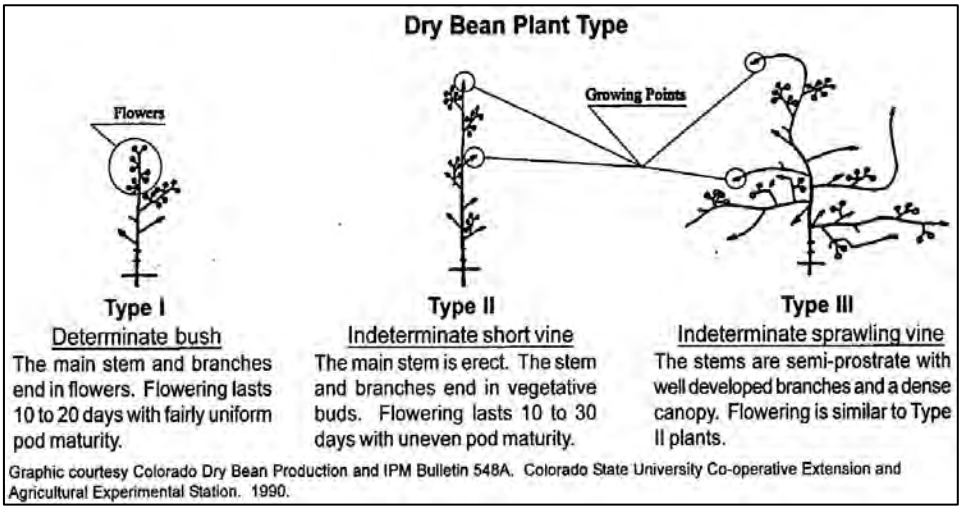
PBR in effect or filed

*Pod clearance rating = % of pods that completely clear the cutter bar at time of swathing

ADDITIONAL INFORMATION

Commercial row crop production is typically on 55 cm (22”) or 75 cm (30”) centres. The wide-row bean trials are grown on 60 cm (24”) rows to evaluate varieties under conditions like conventional practice.

Yield and days to maturity are important factors when choosing a bean variety. Spring or fall frost can destroy a dry bean crop. It is important to select a variety that will mature during the normal frost-free season for your region.



CDC WM-2 is a slow-darkening pinto dry bean variety. **AC Black Diamond** and **AAC Black Diamond II** have large shiny seeds. **Black Violet** has smaller, buff-coloured seeds.

Corn

Hybrid	Company	CHU Rating	Site Years	Dry Matter Yield (T/ac)	Yield as % of Baxxos RR	Whole Plant Moisture (%)	Days to Anthesis	Days to Silking
HL R219 RR	Hyland	2350	9	8.0	114	66.5	77	78
SilEx Bt RR	Pickseed	2200	5	8.0	114	68.9	75	78
A4705HMRR	Pride Seeds	2350	3	8.0	114	68.6	75	77
P7443R RR	Pioneer	2100	4	7.8	111	58.2	73	77
39M26 RR	Pioneer	2100	4	7.6	109	62.4	67	74
HL 3085 RR	Hyland	2400	7	7.3	104	67.8	77	80
HL B22R	Hyland	2400	3	7.3	104	74.7	76	81
39F57	Pioneer	2200	4	7.2	103	64.7	75	77
Fusion RR	Elite	2200	4	7.3	103	66.6	74	77
2791RR	Seeds 2000	2250	3	7.3	103	68.8	77	78
P8210HR	Pioneer	2475	4	7.1	102	66.6	75	79
Baxxos RR	Hyland	2250	9	7.0	100	66.3	71	75
N05C-GT	Syngenta	2250	4	7.0	100	65.5	73	76
DKC30-07RIB	Monsanto	2325	8	7.0	99	69.2	76	81
39V05	Pioneer	2350	4	6.9	98	62.7	73	79
HL 2093	Hyland	2300	5	6.8	97	62.7	70	75
X14008GH	Dow Seeds	2450	4	6.8	97	70.3	81	86
DKC27-55RIB	Monsanto	2200	3	6.8	97	68.2	70	77
DKC26-78	Monsanto	2150	3	6.7	96	63.7	69	73
X13002S2	Dow Seeds	2300	4	6.7	95	69.5	75	82
DKC33-78RIB	Monsanto	2500	4	6.6	94	69.4	76	80
39D95	Pioneer	2150	5	6.3	90	65.1	73	78
39F45	Pioneer	2000	3	6.3	90	54.9	63	70

ADDITIONAL INFORMATION

The Alberta Corn Committee (ACC) irrigated grain and silage corn hybrid performance trials were conducted at CSIDC from 2003–2015. This organization ceased to exist as of 2020.

A second silage corn hybrid performance trial was initiated in 2012, specifically on behalf of ISask. For this trial, seed company representatives were invited to submit silage hybrids they deemed adapted to the Lake Diefenbaker Development Area and that were commercially available at the local level.

On the basis of these two trials, the following **silage** corn hybrid performance results were generated specifically for the irrigated area of West Central Saskatchewan. Presently how, or if, ISask is going to proceed with corn variety evaluations is under review.

Select a variety with a Corn Heat Unit (CHU) rating suitable to your area. A CHU map of Saskatchewan is available on the Saskatchewan Ministry of Agriculture website at **https://pubsaskdev.blob.core.windows.net/pubsask-prod/83796/83796-corn_heat_units_maps.pdf**

Information on corn production can be found in ***Field Corn Production in Manitoba***, published by the Manitoba Corn Growers Association. To order the manual, go to the Manitoba Corn Growers Association website at **https://gov.mb.ca/agriculture/crops/guides-and-publications/index.html**

Annual Cereal Forage

Variety	Site Years	Dry Matter Yield (% of check)	% CP	% NDF	% ADF	% TDN
Barley 2-row						
Newdale	8	108	12.3	48.4	29.7	63.9
CDC Cowboy	9	108	12.4	51.2	31.9	62.6
CDC Copeland	9	102	11.6	51.1	32.6	62.4
Stockford	6	103	13.3	52.2	32.8	61.8
CDC Bold	10	95	12.9	49.3	30.5	64.1
Barley 6-row						
Binscarth	6	110	12.9	48.0	29.3	63.9
AC Ranger (check)	12	100	12.5	49.5	30.7	63.4
AC Rosser	12	102	13.0	47.4	29.2	64.8
AC Hawkeye	11	96	12.7	51.9	32.6	62.2
Vivar	11	96	11.8	48.9	29.7	64.4
Trochu	11	94	12.7	48.1	29.8	60.5
CDC Battleford	9	93	12.1	47.3	30.5	64.4
Oats						
Pinnacle	11	105	11.0	52.5	34.6	60.2
Calibre	11	104	11.5	51.8	35.3	59.2
AC Morgan	11	102	11.1	51.0	33.7	60.3
CDC Baler* (check)	11	100	11.5	56.5	37.0	58.4
Triticale						
Comet*	12	101	12.1	58.5	40.0	55.3
Banjo	12	100	13.4	59.6	39.4	55.5
Viking*	12	98	12.2	59.5	40.1	55.2
Pronghorn (check)	12	100	13.9	57.9	38.3	55.8
AC Ultima	12	94	12.6	55.3	35.8	58.9

Average dry matter yield of check: AC Ranger = 15,248 kg/ha (6.80 tons/ac)
CDC Baler = 15,703 kg/ha (7.00 tons/ac)
Pronghorn = 13,908 kg/ha (6.00 tons/ac)

PBR in effect or filed

Barley and oat varieties harvested at soft dough; triticale varieties harvested at late milk – early dough

CP = Crude Protein; NDF = Neutral Detergent Fibre; ADF = Acid Detergent Fibre; TDN = Total Digestible Nutrients

*Varieties available for annual forage production

Alfalfa

Variety	Site Years	Yield as % of Beaver
Steak	3	118
Approved	3	114
Forecast 1001	3	112
WinterGold	3	112
AC Nordica	4	111
WL 327	3	110
Starbuck	3	109
54V46	4	109
WL 232 HQ	3	109
Spredor 4	3	108
Gibraltar	3	107
Perfect	3	107
AC Blue J	22	106
Survivor	3	106
AC Longview	7	106
Pickseed 2065MF	7	106
54V54	7	106
Pickseed 8925MF	4	105
421Abacus	3	105
AmeriStand 201+Z	7	105
AgriMaster	3	105
Geneva	7	104
HybriForce-400	3	104
134	3	104

Variety	Site Years	Yield as % of Beaver
Atomic	3	104
WL 319 HQ	3	104
Equinox	3	103
53Q60	7	103
AC Grazelander Br	7	103
Dakota	3	103
Tophand	3	103
StockWell	10	102
Proleaf	3	102
Barrier	11	102
Gala	4	102
Magnum 3801 Wet	3	101
Quattro HR	3	101
Beaver	34	100
Rhino	3	98
Magnum III-WET	3	97
Rangelander	22	96
HayGrazer	3	96
Convoy	3	95
53Q30	3	94
54Q25	3	93
Dalton	3	93
Runner	6	93
Rambler	34	91

PBR in effect or filed

ADDITIONAL INFORMATION

Alfalfa varieties were evaluated in the Western Forage Testing (WFT) System trials from 1996 to 2009 and in the ISask/Saskatchewan Forage Council trials established under irrigation in 2002 at CSIDC and in 2003 at Osler, Saskatchewan. WFT variety trials are established each year, and forage yields are measured for each of the following three years. All data is for a two-cut system, except for 2001 to 2003, when three cuts were taken.

Varieties with rapid re-growth after cutting are best suited to intensive management. For more information on alfalfa varieties, including disease resistance, consult the latest ***Forage Crop Production Guide*** available from Saskatchewan Ministry of Agriculture **https://www.saskatchewan.ca/business/%20agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/crops-and-irrigation/forage-production-annual-native-perennial/forage-crop-production**

The contribution and co-operation of Dr. Bill Biligetu of the Department of Plant Sciences, University of Saskatchewan, toward the alfalfa, timothy, and forage grass variety testing is gratefully acknowledged.

Timothy

Irrigated timothy trials were conducted at CSIDC and at the Semiarid Prairie Agricultural Research Centre (SPARC) in Swift Current from 1995 to 1997. Western Forage Testing (WFT) System trials were conducted at CSIDC from 1996 to 2007. AAFC Timothy Performance Trials were conducted at CSIDC in 2004 and 2005. Results from all trials are included in the table.

The trials were harvested in early July and in late August of each year. Export markets prefer high leaf content and long seed heads. **Drummond** had the longest seed heads and the second highest leaf content in the trials conducted from 1995 to 1997. **Richmond** had a lower fiber content and higher nutritive value, making it better suited to the domestic dairy hay market than other varieties tested in the 1995 to 1997 trials.

Variety	Site Years	Yield as % of Climax
AC Alliance	5	116
Dolina	3	114
Express	3	113
Grinstad	11	112
Joliette	5	112
Jonatan	5	111
Richmond	8	109
Timfor	6	108
Turku	3	104
Winnetou	3	103
TimPro	3	102
Tenho	3	102
Alexander	6	101
Drummond	8	100
Nike	6	100
Climax	11	100
Argus	6	97
Toro	6	97
Glacier	3	96
Carola Champ	6	93
Topi	3	91
Bottnia II	6	89
Tuukka	3	87

Perennial Forage

Variety	Site Years	Yield as % of check
Birdsfoot Trefoil		
AC Langille	3	117
Leo (check)	3	100
Cicer Milkvetch		
Windsor	2	101
Oxley (check)	2	100
AC Oxley II	2	90
Crested Wheatgrass		
AC Goliath	2	109
Kirk (check)	3	100
Smooth Bromegrass		
Carlton (check)	3	100
AC Rocket	3	100
Radisson	3	99
Meadow Foxtail		
Dan (check)	3	100
Mountain	3	87

Average dry matter yield of check:
Leo = 10,743 kg/ha (4.79 tons/ac)
Oxley = 9,496 kg/ha (4.24 tons/ac)
Kirk = 14,493 kg/ha (6.46 tons/ac)
Carlton = 16,004 kg/ac (7.14 tons/ac)
Dan = 10,155 kg/ha (4.53 tons/ac)

Variety	Site Years	Yield as % of check
Orchard Grass		
Tundra	3	121
Early Arctic	3	118
Kootenay	3	106
Killarney	3	105
Kay (check)	3	100
Kayak	3	91
Meadow Bromegrass		
Montana	3	112
MBA	3	104
Fleet (check)	3	100
Tall Fescue		
Courtney (check)	3	100
Kokanee	3	88

Average dry matter yield of check:
Kay = 10,137 kg/ha (4.52 tons/ac)
Fleet = 13,433 kg/ha (6.09 tons/ac)
Courtney = 13,958 kg/ha (6.23 tons/ac)

PBR in effect or filed

The research ISask conducts is summarized in several useful publications, including:

- Annual Research and Demonstration Program Report
- Irrigation Economics and Agronomics
- Crop Varieties for Irrigation (annual update)
- Irrigation Scheduling Manual
- *The Irrigator* (newsletter)

For these and other publications concerning irrigation in Saskatchewan, see our website: www.irrigationsaskatchewan.com

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