

Technical Bulletin

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SeCan

Canada's Seed Partner

CDC Churchill 2-Row Malting Barley



Progress Through Research
Le progrès grâce à la recherche

CDC Churchill is a very high yielding strong strawed 2-row malting barley with lower grain protein than AC Metcalfe, CDC Copeland and AAC Synergy and overall excellent agronomic package. CDC Churchill will compete head-to-head with the best 2-row malt and feed barleys for yield and agronomics so will be an excellent choice as a feed or malting barley. CDC Churchill has low enzyme activity making it ideally suited to 100% malt brewing. CDC Churchill is widely adapted across the Canadian Prairies and is presently undergoing market development trials with maltsters and brewers.

Strengths:

- Yield 117% of AC Metcalfe and 103% of AAC Synergy (2015 & 2016 Registration Trials)
- Straw strength greater than the malt checks AC Metcalfe, AAC Synergy and CDC Copeland
- 4cm shorter than AC Metcalfe
- Low grain protein and malt β -glucan (similar to AAC Synergy)
- Moderately resistant to stem rust, netted net blotch and spotted net blotch

Neutral Traits:

- Test weight, kernel weight, plumps/thins similar to AC Metcalfe and CDC Copeland
- 1 day later maturing than AC Metcalfe, similar to CDC Copeland and AAC Synergy
- Intermediate resistance to spot blotch

Weaknesses:

- moderately susceptible FHB and loose smut
- susceptible to scald

Breeder:

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Crop Development Centre
University of Saskatchewan
Saskatoon, Saskatchewan

PBR 91 Protected

Currently undergoing malt barley market development

Averaged Characteristics from 2015 & 2016 Western Cooperative Two-Row Barley Registration Trials

Variety	Yield (% of CDC Copeland)	Maturity (days)	Grain Protein (%)	Height (cm)	Lodging 1 = best 9 = flat	Kernel Weight (g/1000k)	% Plump	Test Weight (kg hl)
CDC Copeland	100	93.4	11.7	84.6	3.8	46.8	92.7	63.2
AC Metcalfe	96	92.9	12.3	79.4	5.3	45.1	92.6	64.4
AAC Synergy	109	93.4	11.7	79.3	4.2	47.9	94.7	64.4
CDC Austenson	111	94.6	---	79.1	3.3	47.6	92.1	66.4
CDC Churchill	112	93.8	11.3	74.8	3.4	46.0	92.2	64.5

For more information, call 1-800-665-7333 or visit www.secan.com

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Seed Manitoba 2021 - Malting Barley Comparison

Variety	Site Years Tested	Yield bu/ac	Protein +/- check	Maturity +/- 88 days	Height +/- 89cm	Test Tw. +/- 48.7lb/bu	Rough or Smooth Awns	Lodging	Loose Smut	Surface-Borne Smut	Root Rot	Netted Net Blotch	Spotted Net Blotch	Spot Blotch	Stem Rust	Fusarium Head Blight
AC Metcalfe	217	97	12.9	0	0	0	R	F	R	I	I	S	I	I	MR	I
AAC Synergy	44	113	12.2	0	-2	-0.4	R	G	S	I	I	MR	R	R	MR	I
CDC Bow	50	105	12.1	+1	+3	+0.5	R	G	S	I	MS	S	MR	I	MR	MS
CDC Copeland	51	98	12.4	0	+5	-0.5	R	F	MS	I	I	I	I	S	MR	I
CDC Fraser	38	108	12.1	+1	0	-0.7	R	G	R	MR	MS	MR	MR	MR	MR	I
CDC Churchill	31	110	12.2	+1	-5	-0.2	R	G	MS	MR	---	MR	MR	I	MR	MS

Lodging Ratings: F=Fair; G=Good; VG=Very Good; Disease Ratings: R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible

2021 Saskatchewan Varieties of Grain - Malting Barley Comparison

Variety	# Rows	Awn Type	Yield as % of AAC Synergy		Relative Maturity	Lodging	Resistance to:								
			Area 1 & 2	Area 2 & 3			Net-Form Net Blotch	Spot-Form Net Blotch	Spot Blotch	Scald	Loose Smut	Other Smuts	Root Rot	Stem Rust	Fusarium Head Blight
AAC Synergy	2	R	100	100	M	F	MR	R	R	S	S	I	I	MR	I
AC Metcalfe	2	R	87	86	M	F	S	I	I	MS	R	I	I	MR	I
CDC Bow	2	R	94	93	M	VG	S	MR	I	MS	S	I	MS	MR	MS
CDC Copeland	2	R	92	93	M	F	I	I	S	MS	MS	I	I	MR	I
CDC Fraser	2	R	100	98	M	G	MR	R	MR	MS	R	R	MS	MR	I
CDC Churchill	2	R	103	102	M	G	MR	MR	I	S	MS	MR	---	MR	MS

M=Medium; L=Late; G=Good; VG=Very Good; F=Fair; P=Poor; VP=Very Poor

Disease Ratings: R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible

2021 Alberta Seed Guide - Malting Barley Comparison

Variety	2 or 6 Row	Awn	All sites	Station Years	Low <75 bu/ac	Medium 75-100 bu/ac	High 100-125 bu/ac	Very High >125 bu/ac	Maturity Days +/- AC Metcalfe	Test Weight lb/bu	Kernel Weight g/1000k	Height (cm)	Lodging	Disease Tolerance						
														Loose Smut	Other Smuts	Scald	Spot Form Net blotch	Net Form Net Blotch	Spot Blotch	Tolerance to FHB
AC Metcalfe (bu/ac)					60	87	109	137												
AC Metcalfe	2	R	100	564	100	100	100	100	97	52	46	79	F	R	I	S	I	S	I	I
CDC Bow	2	R	104	42	XX	106	105	104	1	51	48	77	VG	S	I	MS	MR	S	I	MS
CDC Copeland	2	R	103	163	98	104	104	105	1	51	48	84	F	MS	I	S	I	I	S	I
CDC Fraser	2	R	109	39	XX	114	110	108	1	51	49	76	G	R	MR	MS	MR	MR	MR	I
CDC Kindersley	2	R	104	47	XX	102	104	104	-1	53	43	78	G	S	R	S	MR	MS	I	I
Lowe	2	R	111	42	XX	113	117	106	3	51	50	87	F	R	R	MR	MR	I	I	MR
CDC Churchill	2	R	115	41	XX	118	114	115	1	52	48	82	G	MS	MR	S	MR	MR	I	MS

Fl. & Cov. Smut=False Loose & Covered Smuts; R=Rough; G=Good; VG=Very Good; F=Fair; P=Poor; VP=Very Poor

Disease Ratings: R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible

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