Technical Bulletin

Genes that fit your farm.



CDC Churchill 2-Row Malting Barley



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.

Parentage: TR08116 x TR07299

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:

Dr. Aaron Beattie and B.G. Rossnagel Crop Development Centre University of Saskatchewan Saskatoon, Saskatchewan

PBR 91 Protected PVP Granted

CMBTC Recommended List for 2025

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

Seed Manitoba 2025 - Malting Barley Comparison

				Maturity	Height	Test Tw.	Rough or			Surface-		Netted	Spotted			Fusarium
	Site Years	Yield	Protein	+/-	+/-	+/-	Smooth		Loose	Borne	Root	Net	Net	Spot	Stem	Head
Variety	Tested	bu/ac	+/- check	88 days	89cm	48.7lb/bu	Awns	Lodging	Smut	Smut	Rot	Blotch	Blotch	Blotch	Rust	Blight
AC Metcalfe	201	99	13.0	0	0	0	R	F	R	I		S	1	- 1	MR	I
AAC Synergy	91	114	12.2	0	-2	-0.4	R	G	S			MR	R	R	MR	I
CDC Austenson*	91	116	12.2	+1	0	+0.5	R	G	S	R		MS	R	MR		I
CDC Bow	55	107	12.1	+1	+3	+0.5	R	G	S		MS	S	MR		MR	I
CDC Copeland	41	102	12.3	0	+5	-0.5	R	G	MS			ı		S	MR	I
CDC Fraser	43	109	12.1	+1	0	-0.7	R	G	R	MR	MS	MR	MR	R	MR	ĺ
CDC Churchill	46	113	12.3	+1	-5	-0.2	R	G	MS	MR		MR	MR		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 * Feed barley comparison

2025 Saskatchewan Varieties of Grain - Barley Comparison

				Yield												
Variety	Years Tested	# Rows	Awn Type	(% of AAC Area 1&2	Synergy) Area 3&4	Relative Maturity	Lodging	Net Form Net Blotch	Spot- Form Net Blotch	Spot Blotch	Scald	Loose Smut	Other Smuts	Root Rot	Stem Rust	FHB
AAC Synergy	7	2	Ř	100	100	М	F	MR	R	R	S	S	I	ı	MR	I
AC Metcalfe	7	2	R	87	86	M	F	S		I	MS	R	I	I	MR	I
CDC Austenson*	7	2	R	102	103	M	G	MS	R	MR	S	S	R	ı	I	I
CDC Bow	7	2	R	94	93	M	VG	S	MR	I	MS	S	I	MS	MR	MS
CDC Copeland	7	2	R	92	93	M	F	I		S	MS	MS	I	ı	MR	I
CDC Fraser	7	2	R	100	98	M	G	MR	R	R	MS	R	R	MS	MR	I
CDC Churchill	7	2	R	105	104	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 *Feed barley comparison

2025 Alberta Seed Guide - Malting Barley Comparison

			Most		Yield ^c	% AAC Sy		Maturity Days					Disease Tolerance							
Variety	2 or 6 Row	Awn Type	Recent Year of Testing	Station Years	Overall Yield	Low <113 (bu/ac)	High >113 (bu/ac)	+/- AAC Synergy	Test Weight Ib/bu	TKW (g)	Height (cm)	Resistance to Lodging	Loose Smut	Other Smuts	Scald	Spot Form Net blotch	Net Form Net Blotch	Spot Blotch	FHB	
AAC Synergy (bu/ac)					122	85	147	93												
AAC Synergy	2	R	2024	164	100	100	100	0	53	49	81	F	S		S	R	MR	R	ı	
AC Metcalfe	2	R	2024	122	91	89	92	0	53	46	81	F	R		S	I	S	ı	ı	
CDC Austenson*	2	R	2024	134	101	98	103	+2	54	49	81	G	S	R	S	R	MS	MR	I	
CDC Bow	2	R	2016	38	97	98	96	+1	52	45	79	VG	S	I	MS	MR	S	- 1	I	
CDC Copeland	2	R	2024	121	95	93	96	0	52	48	86	F	MS	I	S	I	I	S	I	
CDC Fraser	2	R	2017	37	102	103	101	+1	52	46	78	G	R	MR	MS	MR	MR	R	I	
CDC Churchill	2	R	2024	57	104	102	104	+2	53	46	77	G	MS	MR	S	MR	MR	ı	MS	

R=Rough; VG=Very Good, G=Good, F=Fair; P=Poor; VP=Very Poor *Feed barley comparison

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

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