# Technical Bulletin

Genes that fit your farm.



## CDC Bow 2-Row Malting Barley



CDC Bow is a high yielding strong strawed 2-row malting barley with large plump kernels and lower grain protein. CDC Bow has grain protein similar to CDC Copeland, malt enzyme activity between AC Metcalfe and CDC Copeland, extract greater than both checks, malt  $\beta$ -glucan lower than both checks and friability and FAN greater than both checks. CDC Bow is widely adapted across the Canadian Prairies and is presently undergoing market development trials with maltsters and brewers.

Parentage: SM04261 x TR05285

### Strengths:

- 9% higher yield than AC Metcalfe (2011 & 2012 Coop Trials)
- Straw strength greater than the checks including Xena
- Grain protein 8/10% lower than AC Metcalfe, similar to CDC Copeland
- Low malt β-glucan,
- Test weight and kernel weight greater than the checks
- Higher % plump kernels than the checks
- Resistant to covered smut and stem rust

#### **Neutral Traits:**

- 1cm taller than AC Metcalfe
- 1 day later maturing than AC Metcalfe
- Intermediate resistance to spot blotch
- Malt enzyme activity between AC Metcalfe and CDC Copeland

#### Weaknesses:

 Susceptible or moderately susceptible to true loose smut, false smut, scald, septoria and FHB

#### **Breeders:**

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

PBR 91 Protected PVP Granted

Averaged Characteristics from 2011 & 2012 Western Cooperative Two-Row Barley Registration Trials

Variety	Yield (% of AC Metcalfe)	Maturity (days)	Grain Protein (%)	Height (cm)	Lodging 1 = best 9 = flat	Kernel Weight (mg)	% Plump	Test Weight (kg hl)
CDC Copeland	106	92.7	11.3	85.9	3.5	44.2	87.6	63.4
Xena	112	92.9		81.5	3.2	47.6	88.8	65.6
AC Metcalfe	100	92.4	12.2	81.5	3.6	43.1	86.8	64.7
CDC Bow	109	93.4	11.4	83.0	2.2	47.2	92.5	65.5

**Seed Manitoba 2024 - 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	<b>Blotch</b>	Blotch	Blotch	Rust	Blight
AC Metcalfe	196	99	13.0	0	0	0	R	F	R		_	S	ı		MR	I
AAC Synergy	79	114	12.3	0	-2	-0.4	R	G	S			MR	R	R	MR	I
CDC Austenson*	79	116	12.3	+1	0	+0.5	R	G	S	R	I	MS	R	MR	ı	I
CDC Churchill	41	114	12.3	+1	-5	-0.2	R	G	MS	MR	-	MR	MR		MR	MS
CDC Copeland	36	102	12.4	0	+5	-0.5	R	G	MS		ı	I	I	S	MR	I
CDC Fraser	43	110	12.2	+1	0	-0.7	R	G	R	MR	MS	MR	MR	R	MR	
CDC Bow	55	107	12.2	+1	+3	+0.5	R	G	S		MS	S	MR		MR	

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

2024 Saskatchewan Varieties of Grain - Barley Comparison

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

M=Medium; L=Late; G=Good; VG=Very 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

2024 Alberta Seed Guide - Malting Barley Comparison

	% AAC Sy	nergy	Maturity Days					Disease Tolerance											
Variety	2 or 6 Row		Recent Year of Testing		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)					124	86	146	93											
AAC Synergy	2	R	2023	131	100	100	100	0	53	49	81	F	S	ı	S	R	MR	R	ı
AC Metcalfe	2	R	2023	103	91	89	92	0	53	46	81	F	R	I	S	I	S	I	I
CDC Austenson*	2	R	2023	101	100	94	103	+2	54	49	81	G	S	R	S	R	MS	MR	I
CDC Churchill	2	R	2023	42	103	101	104	+2	53	46	77	G	MS	MR	S	MR	MR	I	MS
CDC Copeland	2	R	2023	88	95	92	96	+1	52	47	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 Bow	2	R	2016	38	97	98	96	+1	52	45	79	VG	S		MS	MR	S	I	1

R=Rough; VG=Very Good, G=Good, F=Fair; P=Poor; VP=Very Poor Disease Ratings: R=Resistant; MR=Moderately Resistant; I=Intermediate; MS=Moderately Susceptible; S=Susceptible

\*Feed barley comparison