

# Technical Bulletin

Genes that fit *your* farm.

**SeCan**

Canada's Seed Partner

## CDC Bow 2-Row Malting Barley



Progress Through Research  
Le progrès grâce à la recherche

**CDC Bow is a high yielding strong strawed two-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.

### 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  $\beta$ -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

### Breeder:

Dr. Aaron Beattie  
Crop Development Centre  
University of Saskatchewan  
Saskatoon, Saskatchewan

### PBR 91 Protected

**Currently undergoing malt barley market development**

### 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
<b>CDC Bow</b>	<b>109</b>	<b>93.4</b>	<b>11.4</b>	<b>83.0</b>	<b>2.2</b>	<b>47.2</b>	<b>92.5</b>	<b>65.5</b>

For more information, call 1-800-665-7333 or visit [www.secan.com](http://www.secan.com)

### Seed Manitoba 2019 - 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	192	96	13.0	0	0	0	R	F	R	I	I	S	I	I	MR	I
CDC Copeland	51	97	12.6	0	+5	-0.5	R	F	MS	I	I	I	I	S	MR	I
CDC Fraser	32	107	12.2	+1	0	-0.7	R	G	R	MR	MS	MR	MR	MR	MR	I
CDC Kindersley	34	102	12.7	-1	-3	0	R	G	S	R	I	MS	MR	I	MR	I
Lowe	35	101	12.4	+2	+5	-0.4	R	G	R	R	---	I	MR	I	S	MR
<b>CDC Bow</b>	<b>44</b>	<b>105</b>	<b>12.1</b>	<b>+1</b>	<b>+3</b>	<b>+0.5</b>	<b>R</b>	<b>G</b>	<b>S</b>	<b>I</b>	<b>MS</b>	<b>S</b>	<b>MR</b>	<b>I</b>	<b>MR</b>	<b>MS</b>

Lodging Ratings: F=Fair; G=Good; VG=Very Good

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

### 2019 Saskatchewan Varieties of Grain - Malting Barley Comparison

Variety	# Rows	Awn Type	Yield as % of AC Metcalfe		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
AC Metcalfe	2	R	100	100	M	F	S	I	I	MS	R	I	I	MR	I
CDC Copeland	2	R	107	108	M	F	I	I	S	MS	MS	I	I	MR	I
CDC Fraser	2	R	112	115	M	G	MR	R	MR	MS	R	R	MS	MR	I
CDC Kindersley	2	R	105	107	E	G	MS	MR	I	S	S	R	I	MR	I
Lowe	2	R	112	110	L	F	I	MR	I	MR	R	R	---	S	MR
<b>CDC Bow</b>	<b>2</b>	<b>R</b>	<b>111</b>	<b>111</b>	<b>M</b>	<b>VG</b>	<b>S</b>	<b>MR</b>	<b>I</b>	<b>MS</b>	<b>S</b>	<b>I</b>	<b>MS</b>	<b>MR</b>	<b>MS</b>

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

### 2019 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	Root Rot	Scald	Spot Form Net blotch	Net Form Net Blotch	Tolerance to FHB
<b>AC Metcalfe (bu/ac)</b>					<b>59</b>	<b>88</b>	<b>110</b>	<b>137</b>												
AC Metcalfe	2	R	100	538	100	100	100	100	M	52	46	79	F	R	I	I	S	I	S	I
CDC Copeland	2	R	103	137	98	104	104	104	M	51	48	81	F	MS	I	I	S	I	I	I
CDC Fraser	2	R	109	39	XX	114	110	108	M	51	49	76	G	R	MR	MS	MS	MR	MR	I
CDC Kindersley	2	R	104	47	XX	102	104	104	E	53	43	78	G	S	R	I	S	MR	MR	MS
Lowe	2	R	111	42	XX	113	117	106	L	51	50	87	F	R	R	XX	MR	MR	I	MR
<b>CDC Bow</b>	<b>2</b>	<b>R</b>	<b>104</b>	<b>42</b>	<b>XX</b>	<b>106</b>	<b>105</b>	<b>104</b>	<b>M</b>	<b>51</b>	<b>48</b>	<b>77</b>	<b>VG</b>	<b>S</b>	<b>I</b>	<b>MS</b>	<b>MS</b>	<b>MR</b>	<b>S</b>	<b>MS</b>

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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