

CDC FRASER

VARIETY HIGHLIGHTS:

- Yields 14% higher than AC Metcalfe and 8% higher than CDC Copeland
- Good resistance to spot blotch and spot-form net blotch
- High enzyme activity

CDC Fraser is a two-row, hulled malting barley variety registered in Canada in 2016. A cross of TR04280 x SM04261, it was developed by Dr. Aaron Beattie at the Crop Development Centre, University of Saskatchewan.

All barley varieties in Canada undergo a rigorous process of evaluation prior to registration, and are required to meet minimum agronomic, disease and quality standards established by check varieties. The following are highlights of the results of the Cooperative and Collaborative trials taken from the breeder's registration application.

AGRONOMIC TRAITS:

- Moderate grain protein, similar to CDC Copeland
- Yields 14% higher than AC Metcalfe and 8% higher than CDC Copeland
- Shorter and stronger straw with good resistance to lodging
- High kernel weight and plumpness
- Good resistance to spot blotch and spot-form net blotch
- Maturity date similar to CDC Copeland

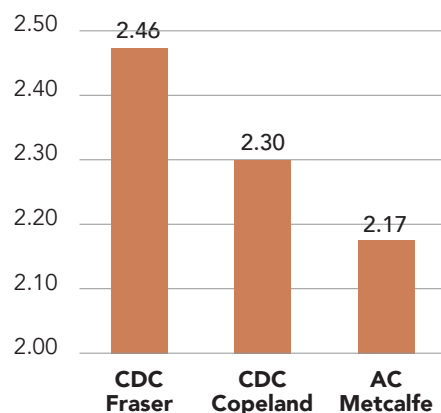
The tables below provide yield and disease comparisons of CDC Fraser with control varieties. Producers should check their provincial seed guides for more information on new varieties.

GENETIC DISEASE RESISTANCE

	AC Metcalfe	CDC Copeland	AAC Synergy	CDC Fraser
Scald	MS-S	MS-S	S	MS
Spot form net blotch	I	I	R	MR-R
Net form net blotch	S	I	MR	MR
Spot blotch	I	S	R	R
FHB	I	I	I	I

S = susceptible; MS = moderately susceptible, I = intermediate resistance, MR = moderate resistance, R = resistant

YIELD COMPARISON (TONNE/ACRE)



From breeder registration submission.

YIELD DATA (BUSHEL/ACRE)

2023 SaskSeed Guide			2023 Alberta Seed Guide		2023 Manitoba Seed Guide	
% of AAC Synergy	Area 1 & 2	Area 3 & 4	% of CDC Copeland*		% of AAC Synergy**	
AAC Synergy	100	100	AAC Synergy	106	AAC Synergy	100
CDC Fraser	100	98	CDC Fraser	106	CDC Fraser	96
CDC Copeland	92	93	CDC Copeland	100	CDC Copeland	88
AC Metcalfe	87	86	AC Metcalfe	99	AC Metcalfe	87

*Base CDC Copeland yield 110 bushels per acre; **Base AAC Synergy yield 111 bushels per acre

QUALITY & PERFORMANCE RESULTS FROM CMBTC 2020-2022 WESTERN CANADIAN FIELD TRIALS

Once varieties have been registered in Canada the CMBTC collects samples annually to evaluate barley & malt quality differences between new and established varieties. These trials are performed to help support new varieties toward market acceptance. The data below represents 3-year averages from 2020-2022 of barley samples sourced from multiple sites across western Canada from the CMBTC's Western Canadian Field Trials.

Table 1. Barley Quality Data

CDC Fraser produced very good malt quality barley, comparable to the control samples with good germination energy, low water sensitivity and good thousand kernel weight.

	AC Metcalfe	CDC Copeland	AAC Synergy	CDC Fraser	p-value by variety*
n	70	70	70	70	
Protein %	13.5	12.9	12.7	12.7	0.0152
Germination Energy %	91.6	94.1	94.3	92.5	0.4035
Water Sensitivity %	74.7 b	83.2 a	82.2 ab	76.3 ab	0.0158
Thousand Kernel Weight, grams	43.9	44.7	45.9	46.0	0.0350
Plumpness %	91.9	91.2	93.4	94.0	0.3024
SN RVU	116	128	122	99	0.0786

Table 2. Malt Quality Data

CDC Fraser shows desirable malt qualities. CDC Fraser has higher friability than AC Metcalfe. Enzymatically, CDC Fraser has moderate enzymes levels that are not statistically different from the checks.

	AC Metcalfe	CDC Copeland	AAC Synergy	CDC Fraser	p-value by variety*
n	70	70	70	70	
Moisture %	4.1	4.0	4.1	4.0	
Friability %	76.6 b	83.2 a	83.2 a	89.7 a	<0.0001
Protein %	13.47	12.94	12.70	12.84	0.5542
Fine Extract % db	80.0	79.6	80.7	80.4	0.2820
Diastatic Power °L	177 a	154 b	157 b	167 ab	0.0021
α-Amylase DU	84.3 a	69.0 b	81.1 ab	78.1 ab	0.0124
Soluble Protein %	5.76	5.62	5.76	5.92	0.7442
S/T Ratio %	43.2	43.7	45.9	46.5	0.1750
FAN mg/L	227	207	222	236	0.2539
Colour SRM	3.11	2.68	2.94	3.43	0.5938
β-Glucan mg/L	127	146	103	95	0.0939
Viscosity cP	1.48	1.47	1.45	1.45	0.2257

*A p value <0.05 indicates statistical significance between values.

Letter display generated by Tukey's test. Varieties not connected by the same letter are significantly different.

For more information:
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The CMBTC does not offer advice or recommendations with respect to production or marketing decisions to the barley industry, and this information should not be construed as such.

