

AAC PRAIRIE

VARIETY HIGHLIGHTS:

- Moderate protein content
- Very high enzymatic activity, higher than AC Metcalfe.
- High FAN, similar to AC Metcalfe and higher than CDC Copeland.
- Low β -glucan content
- Malt extract yield higher than AC Metcalfe and CDC Copeland.
- Lower peeled and broken grains than all checks
- Strong disease package

AAC Prairie is a spring two-row, hulled malting barley variety, registered in Canada in 2022. A cross of CDC Kindersley and TR08204; it was developed by Dr. Ana Badea at the Brandon Research Centre, Agriculture and Agri-Food Canada.

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:

- Good yield potential (105% of AC Metcalfe, 102% of CDC Copeland and 97% of AAC Synergy)
- Shorter straw and good lodging resistance
- Maturity date similar to checks
- Moderately resistant to surface-borne smuts, stem rust and net-form net blotch
- Intermediate resistance to spot-form net blotch
- Heavy, plump kernels, similar to AC Metcalfe and CDC Copeland
- Moderate-high grain protein content, slightly below AC Metcalfe

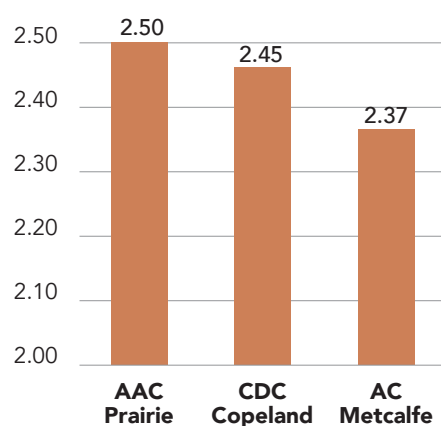
The tables below provide yield and disease comparisons of AAC Connect with control varieties. Producers should check their provincial seed guides for more information on new varieties.

GENETIC DISEASE RESISTANCE

	AC Metcalfe	CDC Copeland	AAC Synergy	AAC Prairie
Scald	MS-S	MS-S	S	MS
Spot form net blotch	I	I	R	I
Net form net blotch	S	I	MR	I
Spot blotch	I	S	R	MR
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
AAC Connect	97	98	AAC Connect	103	AAC Connect	95
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 2021-2022 WESTERN CANADIAN FIELD TRIALS

Once varieties have been registered in Canada, the CMBTC collects samples annually to evaluate barley and malt quality, and malting and brewing performance of new and established varieties. The data is used to support market acceptance of new varieties. The data below represents 2-year averages from 2021-2022 of barley samples sourced from multiple sites across western Canada as part of the CMBTC's Western Canadian Field Trials.

Table 1. Barley Quality Data

AAC Prairie shows malt barley quality comparable to the control samples. With an overall higher protein average, AAC Prairie protein levels are not statistically different from the checks.

	AC Metcalfe	CDC Copeland	AAC Synergy	AAC Prairie	p-value by variety*
n	52	52	52	52	
Protein %	14.1 a	13.4 ab	13.2 b	13.7 ab	0.0464
Germination Energy %	90.1	92.6	93.1	87.8	0.1601
Water Sensitivity %	72.5	81.5	81.9	72.7	0.0271
Thousand Kernel Weight, grams	43.2	44.0	45.0	43.6	0.3137
Plumpness %	92.7	91.9	93.5	92.3	0.7516
SN RVU	103	112	113	101	0.7522

Table 2. Malt Quality Data

AAC Prairie shows overall desirable malt qualities. AAC Prairie has higher friability than AC Metcalfe. Enzymatically, AAC Prairie has diastatic power greater than CDC Copeland and AAC Synergy, while β -amylase is not statistically different from the checks.

	AC Metcalfe	CDC Copeland	AAC Synergy	AAC Prairie	p-value by variety*
n	52	52	52	2	
Moisture %	4.1	4.0	4.1	4.2	
Friability %	76.4 b	83.2 ab	83.1 ab	85.1 a	0.0395
Protein %	13.9	13.3	13.1	13.8	0.6269
Fine Extract % db	79.9	79.5	80.4	80.3	0.5476
Diastatic Power °L	177 ab	157 b	158 b	193 a	0.0003
α -Amylase DU	85.6 a	70.4 b	81.3 ab	72.8 ab	0.0298
Soluble Protein %	5.91	5.82	5.88	6.49	0.1999
S/T Ratio %	43.1	44.1	45.3	47.48	0.2725
FAN mg/L	240	220	234	265	0.0984
Colour SRM	3.46	2.97	3.24	4.72	0.1474
β -Glucan mg/L	122	145	102	88	0.1478
Viscosity cP	1.48	1.47	1.45	1.45	0.4117

*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.

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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.



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