

Canmore

2 rowed, rough awned, medium height, food and general purpose barley



Canmore is a food grade and general purpose barley with:

- excellent yield, up to 115% of AC Metcalfe, and
- good combination of disease resistance.

Canmore is well-adapted to the Black, Brown, and Black and Grey Soil Zones of western Canada. It has good potential in the food barley market for shochu because of its excellent pearling properties, starch content, glucose elution rate, and alcohol yields.

Canmore was developed by the Field Crop Development Centre, Lacombe, and was tested as TR10694 and J02039005.

Strengths

- Grain yields were 111% to 115% of malt check AC Metcalfe. Similar grain yields to the feed check Xena in 2010 and malt check CDC Copeland in 2011.
- Resistant (R) to the surface-borne smuts and loose smut, moderately resistant (MR) to the spot form of net blotch, intermediate resistance (I) to scald and common root rot.
- Good pearling traits, hardness, alcohol yield and quality traits for shochu.
 - Canmore showed significantly higher total starch content over AC Metcalfe and CDC Copeland in 2010 and performed equally in 2011 and 2012.
 - Canmore showed a significantly higher glucose elution rate over CDC Copeland in 2011 and performed equally in 2010 and 2012; and performed equal to AC Metcalfe in 2010-2012.
- Higher percent plumps than all checks in 2010 and AC Metcalfe in 2011, similar test weight to the checks, and higher kernel weight than both malting checks in 2010 and AC Metcalfe in 2011.
- Similar height to AC Metcalfe and Xena, shorter than CDC Copeland, with lower lodging scores than the malting checks in both years.

Neutral Traits

- Maturity 1 to 2 days later than the checks, with similar heading date to AC Metcalfe and Xena in 2010, and earlier than CDC Copeland in both years.
- Intermediate resistance (I) to Fusarium head blight and spot blotch.

Weakness

- Moderately susceptible (MS) to the net form of net blotch and stem rust, susceptible (S) to barley yellow dwarf and Septoria.

Table 1. Mean grain yield (kg/ha) by soil zone in the 2010 and 2011 Western Cooperative Two-Row Barley Trials.

Entry	Black	Black and Grey	Brown	Overall	% AC Metcalfe
Canmore	5559	6355	6103	6029	113
CDC Copeland	5266	5719	5765	5606	105
Xena	5557	6497	6171	6100	114
AC Metcalfe	4935	5489	5512	5342	100
Station Years	9	10	13	32	

Table 2. Mean agronomic performance in the 2010 and 2011 Western Cooperative Two Row Barley Trials.

Entry	Heading (days)	Maturity (days)	Height (cm)	Lodging (0-9)	Test Weight (kg/hL)	1000K weight (g)	Plump >6/64 (%)
Canmore	58.2	98.9	78.8	2.0	66.4	46.8	94.8
CDC Copeland	59.2	98.1	84.1	3.4	63.3	45.2	89.9
Xena	57.9	98.4	78.0	2.9	65.9	48.0	90.3
AC Metcalfe	57.9	97.6	78.3	3.6	65.2	44.4	89.9
Station Years	25	51	30	6	29	28	22

Lodging score 0-9, 9 being up to 100% lodged.

Table 3. Mean yield and agronomic performance from the 2011 and 2012 FCDC yield trials.

Line / Variety	Yield (Kg/ha)	Anthesis (days)	Maturity (days)	Height (cm)	Test Wt. (kg/hL)	1000 K Wt. (g)	Plump >6/64 (%)
Canmore (J02039005)	7478	57	102	89	66	46	87
TR11698 (J03024001)	7221	57	103	90	65	48	84
CDC Copeland	6893	57	102	94	64	45	81
Xena	7495	55	101	88	66	48	83
AC Metcalfe	6573	56	102	91	65	43	80
Station Years	13	13	12	12	13	13	13

Table 4. Disease ratings.

Line/Variety	Loose Smut	Other Smuts	Root Rot	Scald	Spot Form Blotch	Net Form Blotch	Fusarium Head Blight
Canmore	VG	VG	F	F	G	P	F
CDC Copeland	P	F	F	VP	F	F	F
Xena	P	P	G	VP	F	VP	G
AC Metcalfe	VG	F	F	VP	F	VP	F

VG – very good, G – good, F – fair, P – poor, VP – very poor. Canmore from Western Coop data, checks from Alberta Seed Guide.