Western Crop Innovations

AB FOOTHILLS

Two-row malting barley

- Good malting quality for the adjunct market
- Very high diastatic power, with low protein and high extract
- High yield, 110% of CDC Copeland

Strengths of AB Foothills

- Overall grain yield is 110% of the malting check CDC Copeland, 101% of the malting check AAC Synergy, and is equal to the feed check CDC Austenson.
- Especially well adapted to the Brown soil zone and the Black/Grey soil zones.
- Lodging resistance was better than the malting checks in 2021 and similar to checks in the two-year average.
- AB Foothills has a good disease resistance package, with:
    - Resistance to loose smut.
    - Moderate Resistance to the surface-borne smuts, stem rust.
    - Intermediate resistance to FHB, scald, spot-form and net-form net blotch.
- AB Foothills has good malting quality for the adjunct segment of the market, with high diastatic power, low protein, high extract and low beta-glucans in most locations.
- Most malting quality traits are better than the checks, with usually low beta-glucans, very good alpha-amylase, good friability, low grain peeling, and levels of viscosity lower or equal to the checks CDC Copeland and AAC Synergy.

AB Foothills was developed by Western Crop Innovations and is available through Canterra Seeds.

Table 1. Mean grain yield of AB Foothills by soil zone in the 2020 and 2021 Western Cooperative Two-Row Barley Registration Trials.

Entry	Black[1]		Black & Grey[2]		Brown[3]		Overall	
	kg/ha	% CDC Copeland	kg/ha	% CDC Copeland	kg/ha	% CDC Copeland	kg/ha	% CDC Copeland
CDC Copeland	5103	100	4929	100	4543	100	4799	100
AAC Synergy	5465	107	5187	105	5099	112	5228	109
CDC Austenson	5560	109	5262	107	5139	113	5263	110
AB Foothills	5436	107	5264	107	5240	115	5291	110
Station Years	8		4		12		25	

[1]Manitoba and Saskatchewan [2]Alberta and BC [3]Alberta and Saskatchewan

Table 2. Agronomic traits of AB Foothills averaged over the 2020 and 2021 Western Cooperative Two-Row Barley Registration Trials.

Entry	Heading days	Maturity days	Height cm	Lodging 1-9	Test Wt kg/hL	Kernel Wt mg	Plump >6/64 %	Thins <5/64 %
CDC Copeland	58.6	86.2	74.9	3.4	65.1	46.1	94.0	0.6
AAC Synergy	56.8	86.1	71.3	3.4	66.3	47.3	96.0	0.5
CDC Austenson	59.0	87.5	70.0	3.3	68.3	47.3	93.8	0.9
AB Foothills	55.6	86.2	69.6	3.5	65.6	46.2	93.7	0.9
Station Years	28	27	31	7	29	30	26	12

Lodging score 1-9, 9 being up to 100% lodged

Table 3. Malting quality of AB Foothills averaged over the 2020 and 2021 Western Cooperative Two-Row Barley Registration Trials.

Entry	Malt					Wort				
	Friability %	P & B %	Protein %	DP °L	a Amyl D.U.	F. Ext. %	Sol. P. %	β-Glu mg/L	Visc. cP	FAN mg/L
CDC Copeland	87.8	6.7	12.1	150	72.5	79.5	5.09	97	1.45	176
AAC Synergy	79.8	8.6	11.8	152	85.0	80.8	5.21	71	1.43	185
AB Foothills	86.5	6.9	11.7	191	90.5	80.0	5.41	55	1.43	203

P & B - peeled and broken; DP - diastatic power; F. Ext. – fine extract; Sol. P. - soluble protein; Amyl – Amylase; Glu. – Glucan; Visc. – Viscosity

Table 4. Overall disease ratings of AB Foothills from the 2020 and 2021 Western Cooperative Two-Row Barley Registration Trials.

Entry	Net Blotch		Scald	Spot Blotch	Smut		Stem Rust	FHB
	Net Form	Spot Form			Loose	Surface		
CDC Copeland	MR	MS	MS	MS	I	MR	R	I
AAC Synergy	MR	MR	MS	I	MR	MR	R	I
CDC Austenson	I	I	MS	I	I	R	I	MS
AB Foothills	I	I	I	MS	R	MR	MR	I

R – resistant, MR – Moderately resistant, I – intermediate resistance, MS – moderately susceptible, S – susceptible. FHB = fusarium head blight.