Western Crop Innovations

AB MAXIMIZER

Two-row general purpose barley

- Wide adaptation, consistent high-yield performance across all soil zones
- Improved straw strength to support high grain and forage yields
- Intermediate to high level of resistance to all the seven Priority 1 diseases

Strengths of AB Maximizer

- Resistant to lodging, better than all the checks.
- Mean grain yield is 2% higher than CDC Austenson.
- Forage yield ≥ CDC Cowboy and AB Cattlelac.
- Forage starch content was 11.3% as compared to 9.6% for AB Cattlelac and 8.4% for CDC Cowboy in the registration test.
- Plumper seed, and 1-day earlier maturity than CDC Austenson.
- Plant height and test weight intermediate to the checks.
- Good disease resistance package with R or MR overall ratings to surface-borne smut and stem rust, and intermediate (I) resistance to FHB, scald, spot blotch, spot-form and net-form of net blotch.

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

Table 1. Averaged grain yield (kg/ha) of AB Maximizer over the 2020 and 2021 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	Western Black & Grey Wooded Soil		Eastern Black Soil Zone		Brown Soil Zone		Overall	
	kg/ha	CDC Austenson %	kg/ha	CDC Austenson %	kg/ha	CDC Austenson %	kg/ha	CDC Austenson %
AB Cattlelac	5762	96	4304	93	4152	93	4679	94
CDC Austenson	6027	100	4604	100	4481	100	4978	100
Gadsby	5592	93	4254	92	4024	90	4566	92
Vivar	5649	94	4227	92	4193	94	4633	93
CDC Cowboy	4870	82	3786	82	3693	82	4072	82
AB Maximizer	6134	102	4671	101	4541	101	5055	102
Station Years	5		6		6		17	

Table 2. Agronomic traits of AB Maximizer averaged over the 2020 and 2021 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	Heading days	Maturity days	Height cm	Lodging 1-9	Kernel Wt mg	Test Wt kg/hL	Plump >6/64 %	Grain Protein %
AB Cattlelac	54.7	87.5	71.4	1.5	41.3	63.4	90.4	12.3
CDC Austenson	58.4	88.6	64.1	2.3	46.5	66.6	91.3	11.9
Gadsby	59.5	88.0	70.4	2.9	54.5	64.9	96.4	12.4
Vivar	56.3	87.0	62.6	2.2	43.8	61.4	88.3	11.9
CDC Cowboy	58.4	88.6	85.0	2.7	53.6	65.7	95.2	12.5
AB Maximizer	57.1	87.7	66.2	1.3	44.4	65.4	92.8	11.5
Station Years	19	16	20	4	19	19	19	7

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

Table 3. Dry matter yield and forage quality traits of AB Maximizer averaged over the 2020 and 2021 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	DM Yield kg/ha	AB Cattlelac %	Starch %	Protein %	NDF %	ADF %	NDFd %	IVTD %
AB Cattlelac	11776	100	9.6	9.3	49.86	28.7	42.7	71.4
CDC Austenson	12202	104	11.4	9.2	47.74	27.8	43.6	73.0
Gadsby	12189	104	10.2	8.5	48.25	28.0	44.2	73.1
Vivar	11536	98	11.7	8.7	48.72	28.2	44.2	72.8
CDC Cowboy	12357	105	8.4	8.3	49.93	29.2	41.8	70.9
AB Maximizer	12437	106	11.3	8.9	48.82	28.7	42.5	71.9
Station Years	12		12	12	12	12	12	12

NDF - neutral detergent fiber; NDFd – digestible NDF after 30 hours of incubation in rumen fluid; ADF - acid detergent fiber, IVTD – Invitro true digestibility.

Table 4. Disease reactions of AB Maximizer from the 2011 and 2012 Western Cooperative Feed and Forage Barley Registration Test disease reaction report.

Entry	Net Blotch		Scald	Spot Blotch	Surface Smut	Stem Rust	FHB
	Net Form	Spot Form					
AB Cattlelac	I	I	I	MR	R	R	S
CDC Austenson	I	MS	MS	MR	R	MR	I
Gadsby	I	I	MR	MS	R	MR	MR
Vivar	I	I	S	I	R	R	S
CDC Cowboy	I	I	MS	I	R	MR	MR
AB Maximizer	I	I	I	I	R	MR	I

R — resistant, MR – Moderately resistant, I – intermediate resistance, MS – moderately susceptible, S—susceptible. FHB - Fusarium Head Blight.