

FB20601

Variety Information Sheet for FB20601

Two-row, General Purpose (Feed and Forage) Barley



Description

FB20601 is a two-rowed, hulled barley with good potential for feed and forage production. It has shown wide adaptation, with consistent high yield performance across all the soil zones. In the drier year 2021, this line had 5% higher grain yield than CDC Austenson in the Western Black and Grey Wooded Soil, 3% higher grain yield in the Eastern Black Soil, and 7% higher grain yield in the non-irrigated Brown Soil Zone. Its forage yield was also better than the checks. Averaged over the two years of testing, FB20601 had similar biomass yield as CDC Cowboy, but 20% higher grain yield.

FB20601 comes with improved straw strength, which was perhaps inherited from its parental variety Canmore. This line has a good disease resistance package, meeting or exceeding the guideline for all the seven priority 1 diseases. With its high forage and grain yields, good straw strength, and lack of negative disease resistance attributes, FB20601 will be a good dual-purpose feed and forage variety for western Canada.

It is anticipated that up to 200kg of Breeder Seed will be available in spring 2022.

Strengths of FB20601

- Resistant to lodging, better than all the checks.
- Mean grain yield is 2% higher than CDC Austenson.
- Forage yield \geq CDC Cowboy and AB Cattlelac.
- Forage starch content of FB20601 was 11.3% as compared to 9.6% for AB Cattlelac and 8.4% for CDC Cowboy in the registration test.
- Plumper seed than CDC Austenson.
- 1d 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, and spot-form and net-form of net blotch.

Table 1. Yield and agronomic traits of FB20601 averaged over the 2020 and 2021 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	Western Black and 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
FB20601	6134	102	4671	101	4541	101	5055	102
CV (%)	9.5		9.0		14.1		11.1	
LSD _{0.05}	308		249		365		180	
Stn. Yrs.	5		6		6		17	

Entry	Heading	Maturity	Height	Lodging	Kernel Weight	Test Weight	Plump >6/64	Grain Protein	Visual score
	days	days	cm	0-9	mg	Kg/hL	%	%	
AB Cattlelac	54.7	87.5	71.4	1.5	41.3	63.4	90.4	12.3	7.1
CDC Austenson	58.4	88.6	64.1	2.3	46.5	66.6	91.3	11.9	6.9
Gadsby	59.5	88.0	70.4	2.9	54.5	64.9	96.4	12.4	6.0
Vivar	56.3	87.0	62.6	2.2	43.8	61.4	88.3	11.9	6.9
CDC Cowboy	58.4	88.6	85.0	2.7	53.6	65.7	95.2	12.5	6.4
FB20601	57.1	87.7	66.2	1.3	44.4	65.4	92.8	11.5	6.7
CV (%)	1.9	1.6	6.8	56.4	10.0	3.6	4.9	6.0	9.7
LSD _{0.05}	0.4	0.6	1.6	0.7	1.5	1.3	3.2	0.7	0.2
Stn. Yrs.	19	16	20	4	19	19	19	7	6

Table 2. Dry matter yield and forage quality traits of FB20601 averaged over the 2020 and 2021 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	% AB		Starch	Protein	NDF	ADF	NDF30 - NDF	IVTD
	DM Yield (kg/ha)	Cattlelac						
AB Cattlelac	11,776	100	9.6	9.3	49.86	28.7	42.7	71.4
CDC Austenson	12,202	104	11.4	9.2	47.74	27.8	43.6	73.0
Gadsby	12,189	104	10.2	8.5	48.25	28.0	44.2	73.1
Vivar	11,536	98	11.7	8.7	48.72	28.2	44.2	72.8
CDC Cowboy	12,357	105	8.4	8.3	49.93	29.2	41.8	70.9
FB20601	12,437	106	11.3	8.9	48.82	28.7	42.5	71.9
CV (%)	9.2		30.1	7.3	5.3	6.6	4.4	2.7
LSD _{0.05}	484.6		1.4	0.3	1.2	0.9	0.9	0.9
Stn. Yrs.	12		12	12	12	12	12	12

Entry	CC	Daily Cost	ADG	Cost of gain	MPTI	MPHI	Lignin	TDN
	(cow d/ha)	(\$/cow-day)	(kg/d)	(\$/kg)	(kg/t)	(kg/ha)	(%)	(%)
AB Cattlelac	626.3	1.3	0.6	2.3	1004.7	11,322	2.42	67.60
CDC Austenson	636.9	1.3	0.6	2.1	1039.2	12,166	2.33	68.81
Gadsby	633.6	1.3	0.6	2.1	991.1	11,959	2.29	68.52
Vivar	601.4	1.3	0.6	2.1	1035.1	11,721	2.28	68.27
CDC Cowboy	660.2	1.2	0.5	2.2	913.5	10,959	2.37	66.95
FB20601	657.3	1.3	0.6	2.2	1016.7	12,324	2.38	67.64
CV (%)	11.2	8.0	14.1	48.6	8.7	13.0	5.25	3.58
LSD _{0.05}	31.0	0.1	0.0	0.5	40.4	647.3	0.06	1.13
Stn. Yrs.	12	12	12	12	12	12	12	12

DM - dry matter; NDF - neutral detergent fiber; ADF - acid detergent fiber; IVTD - in vitro true digestibility; NDF30-NDF - percentage of NDF that is digestible; CC - carrying capacity of cows on swath for 100 d; ADG - average daily gain of a calf backgrounding for 100 d on forage; MPTI - milk per tonne of forage; MPHI - milk per ha of forage; TDN - Total digestible nutrients.

Table 3. Disease reactions of FB20601 from the 2020 and 2021 Western Cooperative Feed and Forage Barley Registration Test disease reaction report.

Entry	Net form of net blotch	Spot form of net blotch	Scald	Spot blotch	Surface smut	Stem rust	Fusarium Head Blight
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
FB20601	I	I	I	I	R	MR	I