



FB23618

Two-row general purpose barley

- Mean grain yields 5% higher than CDC Austenson
- Excellent agronomic attributes, including improved lodging resistance and grain quality
- Outstanding disease package: strong resistance (R/MR) to scald, surface smut, and stem rust; intermediate resistance to FHB, net blotch, and spot blotch

Description

FB23618 is a two-row, hulled barley variety with broad adaptability across western Canada. Developed from a cross between CDC Austenson and AB Wrangler, it combines the high yield potential of CDC Austenson with the superior disease resistance of AB Wrangler. FB23618 showed high grain yield performance, outperforming all check cultivars in the Western Cooperative Feed and Forage Barley Registration Trials in both 2023 and 2024. In our internal WCI trials, it showed a significant yield advantage over several recently released varieties.

The line FB23618 produces larger, plumper kernels than CDC Austenson. It also exhibited strong lodging resistance. FB23618 has a robust disease resistance package, meeting or exceeding standards for all seven priority one diseases, including Fusarium Head Blight (FHB), scald, net form of net blotch, spot form of net blotch, spot blotch, surface smut, and stem rust. FB23618 has no significant negative attributes, making it a well-rounded option for feed production.

Strengths of FB23618

- Mean grain yield is 5% higher than CDC Austenson.
- Forage dry matter yield is 5% higher than CDC Austenson and AB Cattlelac, 2% higher than CDC Cowboy.
- Resistant to lodging, better than all the checks, with a mean rating of 1.9 for FB23618 vs 2.4 for CDC Austenson.
- Large, plump kernels > CDC Austenson.
- Outstanding disease resistance package with R or MR overall ratings to scald, surface-borne smut, stem rust; and intermediate reactions to FHB, net form of net blotch, spot form of net blotch, and spot blotch.

Neutral Traits

- Days to maturity similar to the checks.
- Test weight intermediate to the checks.

Approximately 300kg of Breeder Seed will be available for FB23618 in spring of 2026.

Table 1a. Yield and agronomic traits of FB23618 averaged over the 2023 and 2024 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	Western Black Soil		Eastern Black Soil		Brown Soil		Irrigated		Overall	
	kg/ha	% CDC Austenson	kg/ha	% CDC Austenson	kg/ha	% CDC Austenson	kg/ha	% CDC Austenson	kg/ha	% CDC Austenson
AB Cattlelac	5858	99	5348	96	5111	95	9986	98	5769	97
CDC Austenson	5920	100	5584	100	5402	100	10195	100	5962	100
CDC Cowboy	5187	88	4472	80	4733	88	7750	76	4983	84
Sirish	5421	92	4674	84	4847	90	8392	82	5204	87
FB23618	6274	106	5845	105	5615	104	10445	102	6240	105
CV (%)	9.0		7.8		8.9		7.0		8.4	9.0
LSD _{0.05}	286.7		204		296.3		799.4		148.4	286.7
Stn. Years	9		11		7		2		29	9

Entry	Heading		Plant		Test	1000	Plump	Thins	NIT
	(days)	Maturity (days)	Height (cm)	Lodging (1-9)	wt. (kg/hl)	Kernel wt. (g)	>6/64 (%)	< 6/64 (%)	Protein (%)
AB Cattlelac	55.3	87.6	85.0	2.8	62.9	41.6	87.4	3.3	12.4
CDC Austenson	58.4	88.1	75.7	2.4	65.0	47.1	88.9	3.7	12.2
CDC Cowboy	56.4	88.9	97.2	4.2	64.8	54.2	95.1	1.4	12.7
Sirish	57.9	87.9	64.2	2.0	62.9	46.0	93.6	1.7	12.0
FB23618	59.8	88.5	75.1	1.9	64.4	50.0	90.6	3.0	11.8
CV (%)	1.9	1.5	5.5	50.1	3.4	8.4	5.6	73.6	5.9
LSD _{0.05}	0.4	0.4	1.3	0.5	0.7	1.3	1.7	0.6	0.4
Stn. Years	25	27	28	12	28	23	24	25	10

Table 1b. Yield and agronomic traits of FB23618 averaged over the 2023 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	Overall Yield		Heading (days)	Maturity (days)	Plant height (cm)	Lodging (1-9)	Test wt. (kg/hl)	1000 Kernel wt. (g)	Plump > 6/64 (%)	Thins <5/64 (%)	NIT Protein (%)
	kg/ha	% CDC Austenson									
AB Cattlelac	6211	97	52.8	88.5	81.0	1.8	64.5	42.3	89.1	2.8	11.3
CDC Austenson	6379	100	55.7	88.9	73.1	2.2	65.5	48.2	92.3	2.2	10.9
Sirish	5590	88	55.4	88.6	62.4	1.0	64.2	48.3	95.7	1.1	11.3
CDC Cowboy	5235	82	53.7	89.4	94.1	4.0	65.4	54.9	96.0	1.5	11.8
FB23618	6835	107	57.2	89.2	72.9	2.1	65.3	51.1	93.2	1.8	10.3
CV (%)	7.3		2.0	1.5	5.7	42.1	1.9	4.7	4.1	60.5	3.4
LSD _{0.05}	370.1		1.1	0.8	2.4	1.3	0.7	1.5	2.5	0.8	0.4
Stn. Years	13		13	14	14	3	15	12	12	11	4

Table 1c. Yield and agronomic traits of FB23618 averaged over the 2024 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	Overall Yield		Heading (days)	Maturity (days)	Plant height (cm)	Lodging (1-9)	Test wt (kg/hl)	1000 Kernel wt (gm)	Plump > 6/64 (%)	Thins <5/64 (%)	NIT Protein (%)
	kg/ha	% CDC Austenson									
AB Cattlelac	5410	96	58.0	86.6	89.0	3.2	61.0	40.9	85.7	3.6	13.2
CDC Austenson	5623	100	61.2	87.3	78.2	2.4	64.4	45.8	85.5	4.8	13.1
CDC Cowboy	4778	85	59.2	88.3	100.3	4.2	64.2	53.6	94.3	1.4	13.2
Sirish	4890	87	60.7	87.1	66.0	2.4	61.4	43.4	91.4	2.1	12.5
FB23618	5757	102	62.7	87.9	77.3	1.8	63.3	48.7	88.0	3.8	12.8
CV (%)	9.4		1.9	1.5	5.2	51.7	2.3	5.6	5.5	66.1	9.3
LSD _{0.05}	211.6		0.5	0.6	1.8	0.7	1.1	1.9	3.3	1.1	1.1
Stn. Years	16		12	13	14	9	13	11	12	14	6

Table 2a. Dry matter yield and forage quality traits of FB23618 averaged over the 2023 and 2024 Western Cooperative Feed and Forage Barley Registration Trials. Forage quality data is an average over six sites (one site in 2023 and 5 sites in 2024).

Entry	DM Yield (kg/ha)	% AB Cattlelac	Starch (%)	Crude Protein (%)	NDF (%)	ADF (%)	Lignin	TDN (%)
AB Cattlelac	12352	100	20.7	10.4	39.9	23.8	2.6	69.4
CDC Austenson	12413	100	19.7	9.9	40.9	24.2	2.5	69.7
CDC Cowboy	12758	103	16.5	9.9	43.4	26.6	3.0	67.6
Sirish	11479	93	20.7	10.5	37.2	21.8	2.2	70.9
FB23618	13007	105	17.7	10.2	42.4	25.4	2.8	68.4
CV (%)	6.8		12.4	4.7	7.4	9.7	15.4	2.4
LSD _{0.05}	440.2		1.6	0.3	2.0	1.5	0.3	1.1
Stn. Years	10		6	6	6	6	6	6

DM - dry matter; NDF - neutral detergent fiber; ADF - acid detergent fiber; TDN - Total digestible nutrients.

Table 2b. Dry matter yield and forage quality traits of FB23618 averaged over the 2023 Western Cooperative Feed and Forage Barley Registration Trials.

Entry	DM Yield (kg/ha)	% AB Cattlelac	Starch (%)	Protein (%)	NDF (%)	ADF (%)	Lignin (%)	TDN (%)
AB Cattlelac	12792	100	10.2	9.1	49.0	26.2	2.22	70.8
CDC Austenson	12963	101	11.8	9.1	46.3	25.3	2.22	72.0
Sirish	11915	93	13.2	9.3	45.5	25.2	2.23	72.1
CDC Cowboy	13045	102	7.5	8.2	49.9	28.1	2.28	68.4
FB23618	13624	107	11.8	8.8	46.5	25.6	2.11	71.6
CV (%)	6.8		26.8	7.1	4.9	5.7	4.2	2.8
LSD _{0.05}	589.4		3.4	0.6	2.3	1.7	0.1	2.2
Stn. Years	6		6	6	6	6	6	6

DM - dry matter; NDF - neutral detergent fiber; ADF - acid detergent fiber; TDN - Total digestible nutrients.

Table 2c. Dry matter yield and forage quality traits of FB23618 averaged over the 2024 Western Cooperative Forage Barley Registration Trials.

Entry	DM Yield (kg/ha)	% AB Cattlelac	Starch (%)	Crude Protein (%)	NDF (%)	ADF (%)	Lignin (%)	TDN (%)
AB Cattlelac	11692	100	20.0	10.3	39.2	23.5	2.30	70.1
CDC Austenson	11589	99	19.5	9.7	40.0	23.6	2.13	70.6
CDC Cowboy	12328	105	15.8	9.7	43.0	26.3	2.81	68.1
Sirish	10825	93	20.2	10.1	36.5	21.3	1.93	71.5
FB23618	12080	103	17.4	10.0	41.7	24.7	2.56	69.0
CV (%)	6.9		9.7	4.3	6.6	9.3	16.9	2.2
LSD _{0.05}	656.9		2.4	0.5	3.3	2.8	0.48	2.0
Stn. Years	4		5	5	5	5	5	5

DM - dry matter; NDF - neutral detergent fiber; ADF - acid detergent fiber; TDN - Total digestible nutrients.

Table 3a. Overall disease ratings for FB23618 from the 2023 and 2024 Western Cooperative Feed and Forage Barley Registration Test disease reaction report.

Entry	Net form of net blotch	Sport form of net blotch	Scald	Spot Blotch	Loose smut	Surface Smuts	Stem Rust	Fusarium Head Blight
AB Cattlelac	MS	I	MR	MR	R	R	R	S
CDC Austenson	I	I	MS	MR	I	R	R	I
Sirish	MS	I	R	MS	R	R	MS	MS
CDC Cowboy	I	I	MS	I	I	I	R	MR
FB23618	I	I	MR	I	I	R	R	I

S – susceptible, MS – moderately susceptible, I – intermediate, MR – moderately resistant, R – resistant

Table 3b. Disease reactions of FB23618 from the 2023 and 2024 Western Cooperative Feed and Forage Barley Registration Test disease reaction report.

Entry		Net Blotch					Spot Blotch					
		Seedling			Lacombe							
		102	858	MBV25	Net-form Rating	Spot-form Rating	1903	Brandon	Lacombe	Rosthern	Melfort	Brandon
AB Cattlelac	2023	9	7	5	0.0	4.0	2.0	4.0	3.5			4.0
	2024	6	9	5	1.5	2.0	4.0	2.0	3.0	5.0	6.0	2.3
Overall		MS/ I					MR					
CDC Austenson	2023	1	3	7	0.0	4.5	3	3.0	4.0			3.0
	2024	2	7	5	0.0	2.0	2	3.5	2.5	7.0	5.5	2.7
Overall		I/I					MR					
Sirish	2023	6	8	5	0.0	4.0	4	7.0	4.5			4.7
	2024	7	8	5	3.0	3.5	7	6.0	3.0	7.5	6.0	5.3
Overall		MS / I					MS					
CDC Cowboy	2023	4	5	5	2.5	4.0	3	5.5	4.0			3.7
	2024	5	7	5	3.0	3.0	4	5.0	3.0	7.5	5.5	3.3
Overall		I/ I					I					
FB23618	2023	1	3	3	0.0	4.0	2	5.0	4.0			4.3
	2024	1	7	3	1.0	2.5	2	4.5	2.5	6.0	5.5	2.3
Overall		I/I					I					

S – susceptible, MS – moderately susceptible, I – intermediate, MR – moderately resistant, R – resistant

Table 3b. Continued.

		Scald			Surface Smuts			Stem Rust			
					U of SK	AAFC-MRDC		Field		CDC <i>Rpg1</i> marker	Seedling MCC
Entry		2275	Lacombe	Edmonton		U. hordei	U. nigra	Coverage	Reaction		
AB Cattlelac	2023	MR	6.0	6.0		7.0	2.0	1	R	+	0;
	2024	MR	3.5	5.0	0.0	8.0	0.0	1	R	+	1-
Overall		MR			R			R			
CDC Austenson	2023	MS	5.5	7.5		8.0	10.0	1	R	+	0;
	2024	MS	3.5	4.0	1.3	5.0	6.0	2	MR	+	1-
Overall		MS			R			R			
Sirish	2023	R	3.0	2.0		8.0	0.0	1	R	-	12
	2024	MR	0.0	0.0	0.0	0.0	0.0	15	I	-	3-3
Overall		MR			R			S			
CDC Cowboy	2023	MS	5.5	4.0		38.0	16.0	1	R	+	0;
	2024	MS	3.5	1.0	13.4	15.0	14.0	1	R	+	1-
Overall		MS			I			R			
FB23618	2023	MR	1.5	5.5		0.0	3.0	1	R	+	0;
	2024	MR	1.5	4.0	0.0	10.0	5.0	1	R	+	1-
Overall		MR			R			R			

S – susceptible, MS – moderately susceptible, I – intermediate, MR – moderately resistant, R – resistant

Table 3b. Continued.

Entry		Fusarium Head Blight								Loose Smut
		Rating		Charlottetown			DON			U. nuda
		Brandon	Morden	Sev.	Inc.	Index	Brandon	Morden	Charlottetown	
AB Cattlelac	2023	2.0	0.3	8.0	6.8	54.0	48.7	0.8	6.6	.
	2024	2.7	3.3	8.5	7.8	66.0	26.4	52.5		
Overall		S								R
CDC Austenson	2023	1.3	0.3	8.0	6.8	54.0	30.7	0.8	4.9	10.7
	2024	1.5	2.3	8.3	7.5	61.8	12.0	46.7		
Overall		I								I
Sirish	2023	1.8	0.3	8.0	7.3	58.0	18.4	0.3	1.7	2.3
	2024	2.0	1.0	8.3	7.3	59.8	14.4	47.7		
Overall		MR								R
CDC Cowboy	2023	1.8	0.3	8.0	7.3	58.0	18.4	0.3	1.7	8.7
	2024	2.0	1.0	8.3	7.3	59.8	14.4	47.7		
Overall		MR								I
FB23618	2023	1.7	0.2	8.0	7.3	58.0	44.0	1.0	4.9	32.6
	2024	1.8	2.0	8.5	7.8	66.0	15.7	48.4		
Overall		I								I

S – susceptible, MS – moderately susceptible, I – intermediate, MR – moderately resistant, R – resistant

Table 4. Supplemental grain yield data (kg/ha) of FB23618 and popular varieties in WCI B-Y6 trials during the 2023 and 2024 seasons.

Entry	Lacombe 2023	Trochu 2023	Lacomb e 2024	Trochu 2024	Average	% CDC Austenson
CDC Austenson	11483	4965	4935	6593	6994	100
AB Hague	11666	4531	4978	5902	6769	97
AB Prime	11687	4416	5495	6035	6908	99
AB Wrangler	11025	5712	4630	6395	6941	99
AB Maximizer	10903	4923	5600	5948	6844	98
Esma	11185	4885	4904	6786	6940	99
Sirish	9666	4159	4893	5882	6150	88
FB23618	12163	5632	5731	7040	7641	109
Grand Mean	11237	4645	5033	6236	6788	
CV (%)	6.0	12.1	9.7	6.7	8.0	
LSD (0.05)	1377.7	1127.2	980.7	844.3	535.1	