

Black Bean: CDC Blackstrap

<p>Breeder: Dr. Kirstin Bett Crop Development Centre University of Saskatchewan Saskatoon, SK.</p>	<p>Year registered: 2015 Date of broad release (off-tender): April 1, 2018</p>	<p>Plant Breeders Rights: UPOV'91</p>
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CDC Blackstrap is a high yielding, indeterminate black bean with medium maturity that is well-adapted to Saskatchewan. This variety was registered in 2015 and marketed through an exclusive, closed-loop tender until April 1, 2018, at which time it became widely available.

In eight years of testing in the dry bean narrow-row trials in the co-op and regional trials in Saskatchewan, CDC Blackstrap yielded 122% of CDC Pintium under irrigation and 120% in dryland conditions. It was the highest yielding variety in the dryland trials compared to other black varieties, as well as pintos and navy beans. CDC Blackstrap is well-adapted for Saskatchewan and has shown promising performance in solid seeded, straight combined, dryland production. This variety is protected by PBR'91.

Strengths:

- High yield
- Good performance in dryland production
- Earlier maturity than CDC Jet or CDC Superjet
- Good pod clearance – suitable for straight combining
- Fewer 'stone seeds' than CDC Jet

Neutral:

- Appropriate seed size and nice shape
- Good lodging scores, similar to the check CDC Pintium

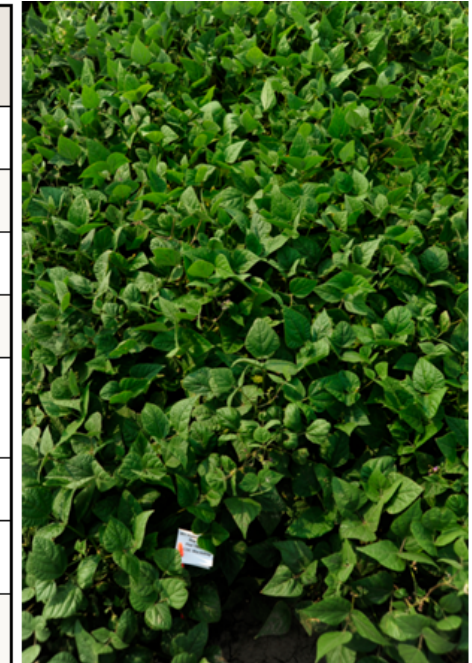
Weaknesses:

- Susceptible to Anthracnose races 73 and 105



Table 1: Dry Bean Agronomic Performance From Narrow-Row Co-op and Regional Trials in Saskatchewan

Variety	Years Tested ¹	PBR Status	Market Class	Yield % CDC Pintium		Days to Flower	Maturity ²	Pod Clearance (%) ³	Growth Habit ⁴	Seed Weight (g/1000)	Market Comments
				Irrigation	Dryland						
CDC Pintium	17	-	Pinto	100	100	50	Early	85	I	350	Regular darkening type
Island	11	-	Pinto	122	111	55	Medium	79	II	355	Regular darkening type
CDC Marmot	8	-	Pinto	108	108	50	Early	80	I	367	Regular darkening type
CDC WM-2	12	PBR '91	Pinto	118	106	52	Early	79	II	365	Slow darkening type
CDC Blackstrap (2921-14)	8	PBR '91	Black	122	120	53	Medium	85	II	195	Well-adapted for SK & dryland production
CDC Jet	17	-	Black	110	98	58	Late	85	II	170	Late maturing for Saskatchewan
CDC Superjet	7	-	Black	125	108	58	Late	85	II	170	Late maturing for Saskatchewan
AC Black Diamond	7	-	Shiny Black	102	94	54	Medium	70	II	250	



Source: Varieties of Grain Crops 2019 (SaskSeed Guide) and CDC Pulse Crop Breeding Group

¹ Co-op and Regional trials grown in narrow rows in Saskatchewan. Direct comparison to CDC Pintium since 2002.

² % Maturity ratings based on E = 100 days; L = 110 days for planting to swathing maturity

³ Pod Clearance: percentage of pods that completely clear the cutterbar at time of swathing (~4 cm).

⁴ Growth habit: I = Determinate bush; II = Indeterminate bush; III = Indeterminate vine

Table 2: Hydration Data for CDC Blackstrap Vs. Black Bean Check Varieties*

Variety	Location	Dry weight (50 seeds)	# of hard seeds	Weight of hard seeds	# of partially soaked seeds	Wt of partially soaked seeds	# of fully soaked seeds	Wt of fully soaked seeds	H-C*
CDC Blackcomb	1	9.48	2	0.70	1	0.18	47	19.70	2.19
CDC Jet	1	9.73	15	3.05	3	1.27	32	12.90	2.08
CDC Blackstrap	1	11.27	0	--	5	2.06	45	21.54	2.14
CDC Blackcomb	2	8.11	1	0.15	3	1.15	46	16.98	2.28
CDC Jet	2	8.08	32	5.54	4	1.08	14	4.87	2.11
CDC Blackstrap	2	9.44	0	--	4	1.12	46	18.94	2.18

* H-C = (Fully soaked seed weight*50 seeds)/(Dry weight * # of fully soaked seeds)

Average of 3 reps at each location

*Source: Crop Development Centre, U of S