

CDC PROCLAIM CL Small Red Lentil

CDC Proclaim is a small red lentil Clearfield variety. It was registered and released to Saskatchewan and Alberta Select Seed Growers in 2014.

CDC Proclaim was tested for three years in the Lentil Registration Recommendation Trial “C” from 2011 – 2013. The yield was slightly higher than that of the red cotyledon check CDC Maxim (Table 1). In supplementary data from 2013 trials (Table 4), yield was 108% of CDC Maxim under environmental conditions that led to the highest recorded average yield for the lentil crop in Saskatchewan. In 6 years of testing in the Coop and Regional trials in Saskatchewan (Table 5), CDC Proclaim yielded 105% of CDC Maxim in the brown and dark brown soil zones.

Seed coat colour, cotyledon colour, flowering time, maturity, plant height and seed weight were similar to CDC Maxim (Table 2). Seed diameter was slightly less than that of CDC Maxim but seed thickness as measured by percentage above 6.5/64” slotted screens was much higher (49%) than that of CDC Maxim at 32% (Table 3). Seeds of CDC Proclaim are plumper, therefore more suitable for lentil dehulling. CDC Proclaim is also tolerant to the imidazolinone herbicides imazethapyr and imazamox. CDC Proclaim has PBR protection.

Strengths: Imidazolinone tolerance
 Seed thickness is greater than CDC Maxim.
 Higher yield compared to CDC Maxim
 Taller than CDC Maxim

Neutral: Similar agronomic characteristics as CDC Maxim.

Breeder seed sales to Select Seed Growers:

Year sold	# Growers SK	# Growers MB	# Growers AB
2014	31	0	2
2015	4	0	0
2016	6	0	0
2017	6	0	0

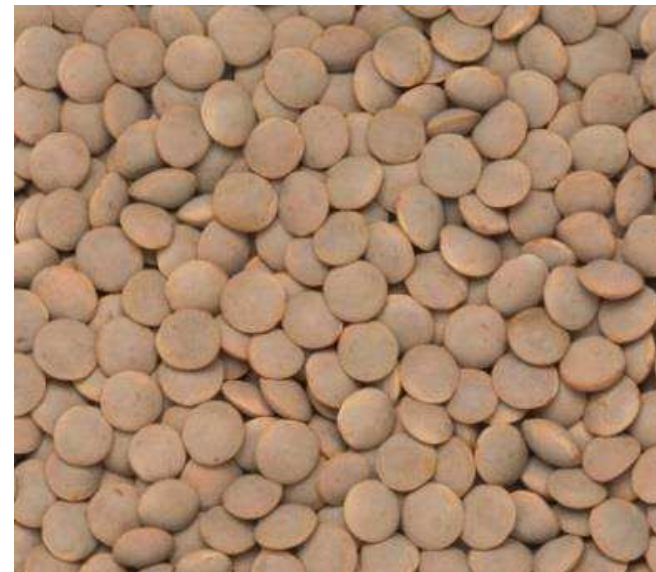


Table 1: Three year summary of agronomic performance for CDC Proclaim CL in the 2011-2013 Lentil Registration Recommendation Trial "C" in Western Canada

Market class	Line	[22] Yield			[18]	[13]	[12]	[7]	[12]
		kg/ha	% of Maxim	% of Improve	Days to flower	Days to mature	Lodging (1-5)	Plant height (cm)	Seed weight g/1000
SR	CDC Maxim	2459	100	125	54	95	1.8	42	41
LG	CDC Improve	1972	80	100	54	94	3.0	45	73
SR	CDC Proclaim	2485	101	126	54	93	2.1	42	41

Market Class: SR-small red; LG - large green

[] indicates number of sites

Table 2: Three year seed size summary for CDC Proclaim in the 2011-2013 Lentil Registration Recommendation Trial "C" in Western Canada

Market class	Line	[6] Seed thickness distribution (% Seed over):														
		Round Hole								Slotted screen						
		6.8 mm >17/64	6.4 mm >16/64	6.0 mm >15/64	5.6 mm >14/64	5.2 mm >13/64	4.8 mm >12/64	4.4 mm >11/64	4.0 mm >10/64	3.6 mm >9/64	3.0 mm >7.5/64	2.8 mm >7.0/64	2.6 mm >6.5/64	2.4 mm >6.0/64	2.2 mm >5.5/65	2.0 mm >5.0/64
SR	CDC Maxim	0	0	0	0	15	52	28	4	0	1	6	25	44	21	3
LG	CDC Improve	10	44	26	16	3	1	0	0	0	10	28	40	16	3	1
SR	CDC Proclaim	0	0	0	0	12	53	31	4	0	3	13	33	41	9	0

Table 3: Three year disease summary for CDC Proclaim CL in the 2011-2013 Lentil Registration Recommendation Trial "C" in Western Canada

Market class	Line	2011		2012	2013
		Asc. Indoor (%)	AN Indoor (0-5)	AN Field (0-5)	AN Field (0-5)
SR	CDC Maxim	9.4	4.7	3.3	3.0
LG	CDC Improve	29.7	4.9	4.5	2.3
SR	CDC Proclaim	13.4	4.7	3.3	2.8

Asc. = Ascochyta, AN = Anthracnose

Table 4: Supplementary data showing yield performance (kg/ha) of CDC Proclaim vs. CDC Maxim at 15 sites in the 2013 Regional Lentil Variety Trial

Line	Cabri	Limerick	Milden	Elrose	Elrose A	Saskatoon	Laird	Laird A	SPG	Swift Current	Melfort	Scott	Hodgeville	Brooks	Bow Island	Mean	% Maxim
CDC Maxim	3394	2891	3023	2152	2129	3773	3161	3608	1972	3187	3650	1618	3367	2536	2582	2870	100
CDC Improve	4014	2873	3215	2422	2439	3374	3603	3205	2347	3821	3600	2209	3194	2771	3544	3109	108
CV	8.2	16.6	12.7	14	12.1	11.1	8.3	11.1	16.6	6.3	13.5	17.2	13.3	10.3	9.3		

Table 4: Agronomic performance for CDC Proclaim from Coop and Regional trials in Saskatchewan – adapted from Varieties of Grain Crops 2017

Variety	Market class	Year of release	Years Tested*	Yield % of CDC Maxim		Disease Resistance		Maturity	Days to Flower	Height (cm)	Seed Weight (g/1000)
				Area 1-2**	Area 3-4**	Ascochyta	Anthracnose (race 1)				
CDC Maxim	Small red	2007	10	100	100	MR	MR	Early-mid	51	34	40
CDC Impulse	Small red	2014	7	108	95	MR	MR	Early-mid	52	37	44
CDC Proclaim	Small red	2014	6	105	101	MR	MR	Early-mid	51	34	40
CDC Redmoon	Small red	2015	6	115	102	MR	MR	Early-mid	52	33	41
4371-4	Small red	2016	4	111	108	MR	MR	Early-mid	53	33	38
3674-15	Small red	2016	5	111	113	MR	MR	Early-mid	52	34	42
CDC Roxy	Extra small red	2014	6	103	102	MR	MR	Early-mid	53	34	32

* Coop and Regional trials in Saskatchewan **Source:** Varieties of Grain Crops 2017

**Area 1: Brown soil zone; Area 2: Dark brown; Area 3: Black; Area 4: Dark gray