

SMALL RED LENTIL: CDC Simmie (CL[®])

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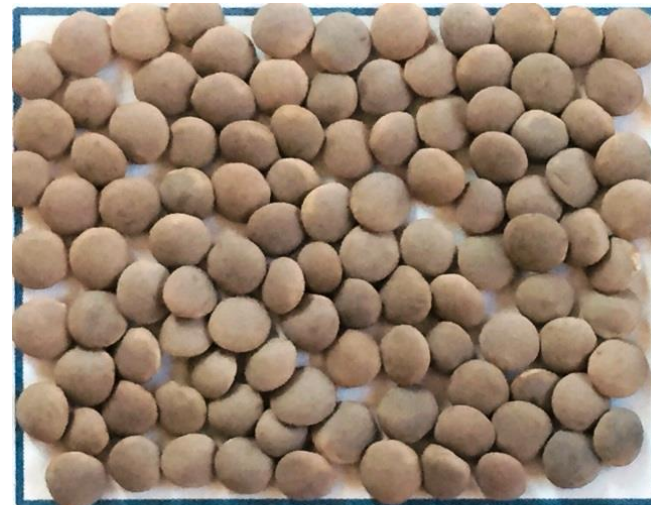
Year released to Select Seed Growers: 2019
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Plant Breeders Rights: Applied

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CDC Simmie (IBC-1235) is a high-yielding small red Clearfield[®] lentil variety. This variety yielded 110% of CDC Maxim in the 2015-2017 Lentil Co-op trials and 120% in the 2017-18 Lentil Regional Variety trials. Over 5 years of testing in the Co-op and Regional Trials in Saskatchewan, CDC Simmie yielded 109% of CDC Maxim in the brown and dark brown soil zones and 103% in the black and dark grey soil zones (Table 1). Seed coat colour, cotyledon colour, flowering time, maturity, plant height and disease resistance characteristics are similar to CDC Maxim. Seed size and thickness is slightly less than CDC Maxim (Table 2). Application for PBR'91 protection for CDC Simmie has been submitted.

- Strengths:**
- High yield compared to CDC Maxim
 - Imidazolinone tolerance
- Neutral:**
- Similar agronomic and maturity characteristics compared to CDC Maxim
 - Similar disease resistance as CDC Maxim
- Weaknesses:**
- Seed thickness less than CDC Maxim



IBC-1235

Table 1: Agronomic performance for small red lentils from Coop and Regional trials in Saskatchewan

Variety	Herbicide tolerance	Year of release	Years Tested*	Yield % of CDC Maxim		Disease Resistance		Days to flower	Height (cm)	Maturity rating	Seed Weight (g/1000)
				Area 1-2	Area 3-4	Ascochyta	Anthrachnose (race 1)				
CDC Maxim	CL	2007	13	100	100	G	G	51	34	Early-mid	40
CDC Impulse	CL	2014	10	107	100	G	G	52	37	Early-mid	44
CDC Proclaim	CL	2014	9	105	100	G	G	51	34	Early-mid	40
CDC Simmie	CL	2019	5	109	103	G	G	53	34	Early-mid	39
CDC Nimble	CL	2019	6	109	107	G	G	52	35	Early-mid	38
CDC Redmoon	No	2015	9	114	104	G	G	52	33	Early-mid	41
CDC Coral	No	2016	6	110	103	G	G	55	33	Early-mid	37
CDC Carmine	No	2016	9	111	106	G	G	54	34	Early-mid	40

Source: Varieties of Grain Crops 2020 (2020 SaskSeed Guide)

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

Table 2: Seed thickness distribution of CDC Simmie in the 2015-2017 Lentil RRT in western Canada (6 sites)

Variety	% Seed over:						
	Round Hole (mm)						Slotted 2.6 mm >6.5/64
	5.6 >14/64	5.2 >13/64	4.8 >12/64	4.4 >11/64	4.0 >10/64	3.6 >9/64	
CDC Maxim	3	19	42	27	7	2	39
CDC Simmie	3	20	50	21	5	1	21

Source: CDC Pulse breeding group, U of S