

LARGE RED LENTIL with GREEN SEED COAT: CDC Sublime (CL[®])

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Year released: 2020
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Plant Breeders Rights: Applied

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CDC Sublime (IBC-1264-1) is a high-yielding large red Clearfield[®] lentil variety. This variety yielded 120% of CDC Maxim in the 2016-18 Lentil Co-op trials. Over 4 years of testing in the Co-op and Regional Trials in Saskatchewan, CDC Sublime yielded 116% of CDC Maxim in the brown and dark brown soil zones and 104% in the black and dark grey soil zones (Table 1). CDC Sublime has a red cotyledon with a green seed coat colour making it unique to the marketplace. Maturity and disease resistance characteristics are similar to CDC Maxim. CDC Sublime is taller than CDC Maxim. Seed size is slightly less than current large red lentil varieties however seed thickness is greater (Table 2). Application for PBR'91 protection for CDC Sublime has been submitted. Grading protocols to distinguish red cotyledon lentils with green seed coats from green lentils will be established by the Canadian Grain Commission.

- Strengths:**
- High yield compared to CDC Maxim and CDC KR-2
 - Thicker seed than CDC KR-2
 - Imidazolinone tolerance
- Neutral:**
- Similar agronomic and maturity characteristics compared to CDC KR-2
 - Slightly better disease resistance as CDC Maxim and CDC KR-2
- Weaknesses:**
- None detected during testing

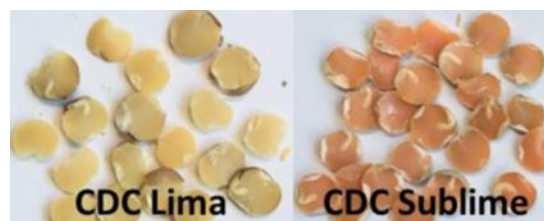
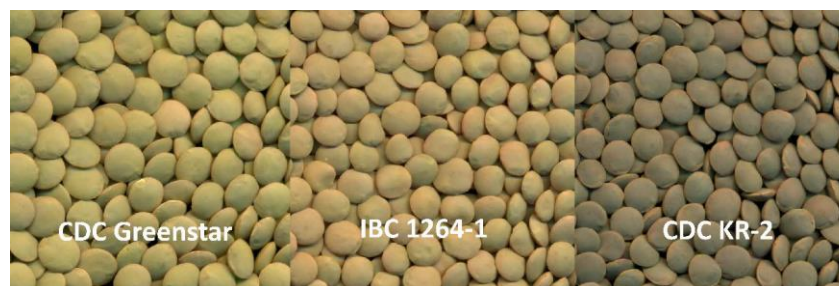


Table 1: Agronomic performance for large red lentil CDC Sublime vs. other small & large red lentil varieties from Coop and Regional trials in Saskatchewan

Variety	Market class	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	Anthracnose (race 1)				
CDC Maxim	Small red	CL	2007	13	100	100	G	G	51	34	Early-mid	40
CDC Impulse	Small red	CL	2014	10	107	100	G	G	52	37	Early-mid	44
CDC Proclaim	Small red	CL	2014	9	105	100	G	G	51	34	Early-mid	40
CDC Simmie	Small red	CL	2019	5	109	103	G	G	53	34	Early-mid	39
CDC Nimble	Small red	CL	2019	6	109	107	G	G	52	35	Early-mid	38
CDC Redmoon	Small red	No	2015	9	114	104	G	G	52	33	Early-mid	41
CDC Coral	Small red	No	2016	6	110	103	G	G	55	33	Early-mid	37
CDC Carmine	Small red	No	2016	9	111	106	G	G	54	34	Early-mid	40
CDC Sublime	Large red	CL	2020	4	116	104	G	G	54	38	Early-mid	53
CDC KR-2	Large red	CL	2013	9	104	90	G	G	52	37	Medium	55

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 Sublime in the 2018 Lentil RRT in western Canada

Variety	% Seed over:								
	Round Hole (mm)								Slotted 2.6 mm >6.5/64
	6.4 >16/64	6.0 >15/64	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	0	2	6	30	47	13	2	1	45
CDC KR-2	2	23	43	23	6	1	1	1	50
CDC Sublime	4	33	40	16	4	1	1	1	54

Source: CDC Pulse breeding group, U of S