

SMALL RED LENTIL: CDC REDMOON

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Year released to Select Seed Growers: 2015
Sub-licensed outside of SK: SeCan
International Distribution Rights: FP Genetics

Plant Breeders Rights: UPOV'91

CDC Redmoon is a high yielding, small red lentil variety with proven performance both in yield trial testing and in field production. In eight years of testing in the co-op and regional trials in Saskatchewan (Table 1), CDC Redmoon was the highest yielding lentil variety at 114% of CDC Maxim in the Brown and Dark Brown soil zones, and 106% in the Black and Dark Gray soil zones. Seed coat colour, cotyledon colour, flowering time, maturity, plant height, disease tolerance (Table 2), and seed weight are similar to CDC Maxim. Seed diameter is slightly less than that of CDC Maxim but seed thickness is higher making CDC Redmoon more suitable for lentil dehulling (Table 3). CDC Redmoon has PBR'91 protection.

Strengths:

- Very high yield
- Proven field production performance
- Seed thickness is greater than CDC Maxim

Neutral:

- Similar agronomic, maturity and disease resistance characteristics compared to CDC Maxim

Weaknesses:

- Not tolerant to imidazolinone herbicides.

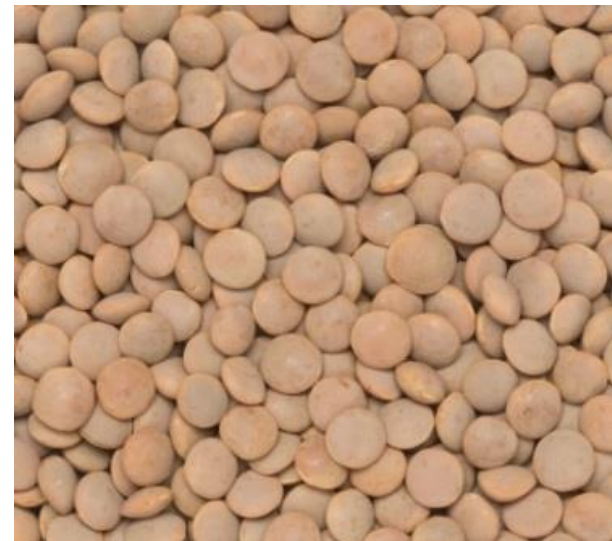


Table 1: Agronomic Performance for Small Red Lentils from Co-op and Regional Trials in Saskatchewan

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	12	100	100	G	G	51	34	Early-mid	40
CDC Impulse	CL	2014	9	108	95	G	G	52	37	Early-mid	44
CDC Proclaim	CL	2014	8	105	102	G	G	51	34	Early-mid	40
CDC Nimble	CL	2019	5	108	108	G	G	52	35	Early-mid	38
CDC Redmoon	No	2015	8	114	106	G	G	52	33	Early-mid	41
CDC Coral	No	2016	5	110	106	G	G	55	33	Early-mid	37
CDC Carmine	No	2016	8	111	106	G	G	54	34	Early-mid	40

Source: Varieties of Grain Crops 2019 (2019 SaskSeed Guide)

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

Table 2: Two Year Disease Summary for CDC Redmoon vs. CDC Maxim

Variety	Ascochyta Blight (%)		Anthracnose*			
	2011 Indoor Test	2012 Indoor Test	2011 Indoor Test (0 - 5 rating)	2012 Indoor Testing (0 - 10 rating)		2012 Field (0 - 5 rating)
				Test 1	Test 2	
CDC Maxim	6.4	40.0	4.7	3.9	4.1	3.0
CDC Redmoon	12.3	43.8	4.6	4.0	3.9	2.3

Source: CDC Pulse breeding group, U of S

* Anthracnose rating: where 0 = no disease

Table 3: Two Year Seed Size Summary for CDC Redmoon in the 2011-2012 Lentil Registration Recommendation Trial in Western Canada (4 sites)

Variety	Seed Thickness Distribution (% Seed over)											
	Round Hole Screen (mm)						Slotted Screen (mm)					
	5.6 >14/64	5.2 >13/64	4.8 >12/64	4.4 >11/64	4.0 >10/64	3.6 >9/64	3.0 >7.5/64	2.8 >7.0/64	2.6 >6.5/64	2.4 >6.0/64	2.2 >5.5/65	2.0 >5.0/64
CDC Maxim	1	20	47	26	4	1	1	7	30	41	18	3
CDC Rosetown	0	1	11	57	25	6	0	0	1	24	54	20
CDC Redmoon	0	12	47	29	8	3	3	16	35	33	11	2

Source: CDC Pulse breeding group, U of S

Figure 1. Direct comparison of CDC Redmoon (exp. name: 3646-4) to CDC Maxim

