

CDC ROXY

Extra Small Red Lentil



**YEAR RELEASE TO
SELECT SEED GROWERS**
2014

SUB-LICENSED OUTSIDE OF SK
SeCan

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FP Genetics

BREEDER
Dr. Albert Vandenberg
Crop Development Centre
University of Saskatchewan
Saskatoon, SK

PLANT BREEDERS RIGHTS
Applied

Description

CDC Roxy is an extra-small red lentil variety. CDC Roxy was tested in the Lentil Registration Recommendation Trial "C" in 2011 and 2012 where it yielded 104% of CDC Maxim. In eight years of testing in the co-op and regional trials in Saskatchewan, CDC Roxy yielded 102% of CDC Maxim in the Brown and Dark Brown soil zones, and 98% in the Black and Dark Gray soil zones (Table 1). CDC Roxy has good resistance to Anthracnose (Table 2). Seed type is acceptable for the extra-small dehulled red lentil market. Thickness of the seed is greater than that of CDC Rosetown, the extra-small red check at the time of testing. Application for PBR'91 protection for CDC Roxy has been submitted.

Strengths

- Higher yield than CDC Maxim (similar to CDC Redbow)
- Improved resistance to Anthracnose vs. CDC Maxim

Neutral

- Similar maturity, flowering, lodging resistance, and resistance to Ascochyta Blight as CDC Maxim

Weaknesses

- Not tolerant to imidazolinone herbicides

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

Adapted from Varieties of Grain Crops 2019

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	ANTHRACNOSE (RACE 1)				
CDC MAXIM	CL	2007	12	100	100	GOOD	GOOD	51	34	EARLY-MID	40
CDC IMPERIAL	CL	2006	8	84	79	GOOD	GOOD	49	30	EARLY	30
CDC IMPALA	CL	2007	11	80	90	GOOD	GOOD	51	30	EARLY	31
CDC IMP	CL	2018	5	95	98	GOOD	GOOD	52	35	EARLY-MID	30
CDC REDBOW	NO	2009	7	102	99	GOOD	GOOD	49	30	EARLY	32
CDC ROSEBUD	NO	2009	7	100	99	GOOD	GOOD	50	30	EARLY	31
CDC ROSIE	NO	2012	8	92	90	GOOD	GOOD	52	33	EARLY-MID	30
CDC ROXY	NO	2014	8	102	98	GOOD	GOOD	53	34	EARLY-MID	32

Source: Varieties of Grain Crops 2019 (SaskSeed Guide)

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

Table 2: Two Year Disease Summary for CDC Roxy 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 TEST (0 - 5 RATING)
				TEST 1	TEST 2	
CDC MAXIM	6.4	40.0	4.7	3.9	4.1	3.0
CDC ROXY	9.8	40.0	1.4	1.1	1.9	2.3

Source: CDC Pulse breeding group, U of S

*Anthracnose rating: where 0 = no disease