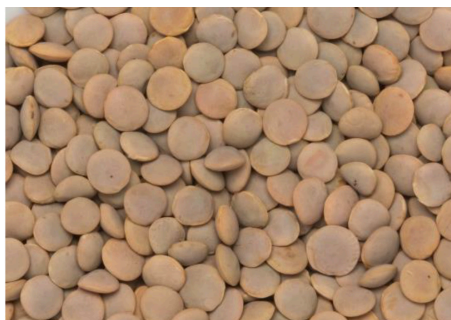


CDC IMPULSE (CL[®])

Small Red Lentil



YEAR RELEASE TO SELECT SEED GROWERS

2014

SUB-LICENSED OUTSIDE OF SK

SeCan

INTERNATIONAL DISTRIBUTION RIGHTS

Pulse USA

BREEDER

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

PLANT BREEDERS RIGHTS



CL (Clearfield[®]) is a Trademark of BASF Inc.

Description

CDC Impulse (IBC-479) is a high yielding Clearfield[®] small red lentil that is well-adapted to the brown and dark brown soil zones. In 11 years of testing in the Co-op and Regional trials in Saskatchewan, CDC Impulse yielded 107% of CDC Maxim in the brown and dark brown soil zones and 100% in the black and dark grey soil zones (Table 1). Maturity is slightly later than CDC Maxim, positive for the southern regions of the lentil production zone. Seed type is larger in diameter and seed weight, acceptable for specific segments of the dehulled red lentil market. CDC Impulse has PBR'91 protection.

Strengths

- Seed type suitable for segments of the small red cotyledon lentil market
- High yield compared to CDC Maxim
- Imidazolinone tolerance
- Seed weight and diameter is greater than CDC Maxim (largest seed size of the small reds)
- Later maturing than CDC Maxim
- Taller than CDC Maxim (tallest of the small reds)

Neutral

- Similar in disease ratings and lodging resistance compared to CDC Maxim

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	ANTHRACNOSE (RACE 1)				
CDC MAXIM	CL	2007	14	100	100	MR	MR	51	34	EARLY-MID	40
CDC DAZIL	CL	2010	12	92	33	MR	I	53	33	EARLY-MID	35
CDC IMPULSE	CL	2014	11	107	100	MR	MR	52	37	EARLY-MID	44
CDC PROCLAIM	CL	2014	10	105	100	MR	MR	51	34	EARLY-MID	40
CDC SIMMIE	CL	2019	6	109	103	MR	MR	53	34	EARLY-MID	39
CDC NIMBLE	CL	2019	7	109	107	MR	MR	52	35	EARLY-MID	38
CDC REDMOON	NO	2015	10	114	104	MR	MR	52	33	EARLY-MID	41
CDC CORAL	NO	2016	7	110	103	MR	MR	55	33	EARLY-MID	37
CDC CARMINE	NO	2016	10	111	106	MR	MR	54	34	EARLY-MID	40

Source: Varieties of Grain Crops 2021 (SaskSeed Guide)

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

**Resistance Ratings: R = Resistant; MR = Moderately resistant; I = Intermediate; S = Susceptible

Analysis of 61 site years of RVT data revealed that CDC Impulse ranked 5th overall among the small red lentil varieties and was the second highest ranking Clearfield lentil variety (Figure 1). CDC Impulse ranked in the top three varieties at 5 of 9 sites. It consistently yielded significantly better than CDC Maxim and CDC Dazil. The best sites included Rosthern, Limerick, Elrose, Hodgeville and Scott. Only two varieties at two locations performed significantly better than CDC Impulse: CDC Carmine at Saskatoon and CDC Redmoon at Swift Current.

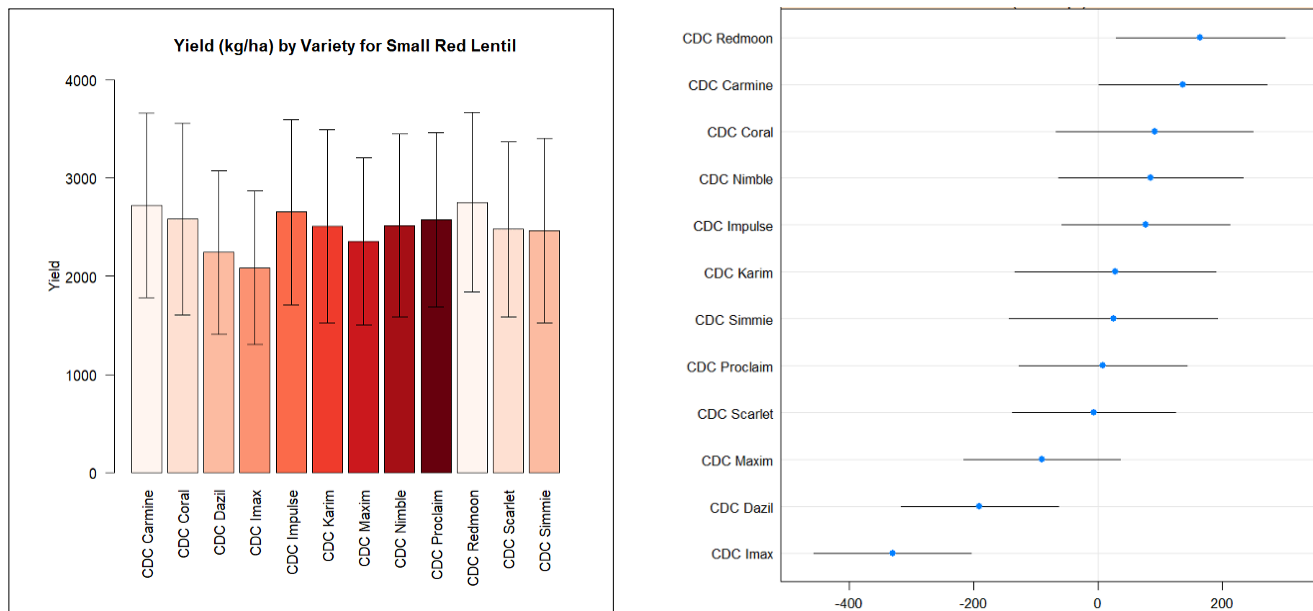


Figure 1. Long term yield (left) and relative yield ranking (right) of small red lentil varieties from 10 years of RVT data in SK