

## 2021 Pulse Varieties Commercially Available to Growers

By SPG Staff

Pulse variety development has brought well-adapted varieties for Saskatchewan growing conditions. Saskatchewan pulses have found export markets around the world and contributed to pulse growers' productivity and profitability. For future pulse variety development, Saskatchewan Pulse Growers will be targeting traits that will bring high value and return on investment to Saskatchewan growers. These investments will involve strategic public and private breeding partnerships and will address important production concerns such as:

- Resistance to root rot in peas and lentils
- New herbicide traits in lentils
- Increasing the adaptability of chickpeas, faba beans, and dry beans to both current and expanded production areas in Saskatchewan

This new future of pulse breeding will help encourage additional investment by others into pulse breeding and variety development, which can bring new traits and varieties to growers more quickly.

In 2021 there are a number of new pulse varieties that are available and that can boost overall yield through better performing traits. We have pulled together a list of the latest pulse varieties that are commercially available. To acquire any of the varieties you see here, consult the [Select Seed Grower Directory on the SPG website](#).

### Lentils

#### CDC Lima

CDC Lima was developed by the Crop Development Centre (CDC), University of Saskatchewan. It is the highest yielding large green Clearfield® lentil variety. In eight years of testing in the co-op and regional trials, it yielded 10% higher in the Brown and Dark Brown soil zones and 18% higher in the Black and Dark Gray zones as compared to the long-term means of the Clearfield® large green lentil variety CDC Impower.

In four years of head-to-head testing in the Lentil Regional Variety Trials (2017 - 2020), CDC Lima yielded 16% higher in the Brown and Dark Brown soil zones and 13% higher in the Black and Dark Gray zones as compared to CDC Impower. Compared to the non-Clearfield® lentil variety CDC Greenstar, CDC Lima yielded 4% lower in the Brown and Dark Brown soil zones but yielded 6% higher in the Black and Dark Gray zones (Table 1).

CDC Lima has a larger seed compared to CDC Impower which is also thicker making CDC Lima more suitable for lentil dehulling. It is slightly shorter in height than its predecessors CDC Impower and CDC Improve.



CDC Lima

**Table 1.** Yield Data for Large Green Lentil (Four Years of Head-to-Head Regional Variety Trial Data)

VARIETY	TYPE	YEAR OF RELEASE	HT <sup>1</sup>	PBR STATUS	YEARS OF RVT DATA	YIELD % MAXIM		RESISTANCE TO <sup>2</sup> :		MATURITY	DAYS TO FLOWER	HEIGHT (CM)	SEED WEIGHT (G/1000)
						AREA 1-2**	AREA 3-4**	ASCOCHYTA BLIGHT	ANTHRACNOSE (RACE 1)				
CDC MAXIM (CHECK)	SMALL RED	2007	CL	-	4	100	100	MR	MR	EARLY-MEDIUM	51	34	40
CDC GREENSTAR	LARGE GREEN	2013	-	-	4	99	81	MR	I	MEDIUM-LATE	52	40	73
CDC IMPOWER	LARGE GREEN	2009	CL	-	4	79	75	MR	S	MEDIUM-LATE	52	41	64
<b>CDC LIMA</b>	<b>LARGE GREEN</b>	<b>2018</b>	<b>CL</b>	<b>PBR<sup>3</sup>'91</b>	<b>4</b>	<b>95</b>	<b>87</b>	<b>MR</b>	<b>S</b>	<b>MEDIUM-LATE</b>	<b>51</b>	<b>35</b>	<b>74</b>

Source of Yield Data: Lentil Regional Variety Trial data (2017 - 2020); Source of Agronomic & Disease Ratings: Varieties of Grain Crops 2021 (SaskSeed Guide)

<sup>1</sup>HT - Herbicide tolerance; CL indicates Clearfield® variety

<sup>2</sup>Resistance ratings: R = Resistant; MR = Moderately resistant; I = Intermediate; S = Susceptible

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

## Peas (Yellow)

### CDC Canary

CDC Canary is an early maturing yellow, semi-leafless field pea variety developed at the CDC. In eight years of testing, it yielded 98% of the check variety CDC Amarillo in both the north and south geographies. It has very good standability as well as a round seed shape and good resistance to seed coat breakage. It is a good choice in northern areas or anywhere that early maturity is important.



CDC Canary

### CDC Lewochko

CDC Lewochko is a high yielding, mid-maturing yellow cotyledon, semi-leafless field pea variety developed by the CDC. In seven years of testing in the co-op and regional trials in Saskatchewan, CDC Lewochko yielded 102% of the check variety CDC Amarillo in the south and 103% in the north. It has very good seed characteristics, rating good for resistance to seed coat breakage, resistance to dimpling, low green colouration, and round shape. It has very good lodging resistance, similar to CDC Amarillo or CDC Spectrum. CDC Lewochko has the highest protein of the yellow pea varieties at +0.7% versus CDC Amarillo. There will be a lot of seed of this variety in 2022 however there may be limited seed starting in 2021.



CDC Lewochko

## Peas (Green)

### CDC Forest

CDC Forest is a green cotyledon, semi-leafless field pea variety developed by the CDC. In eight years of testing in the co-op and regional trials in Saskatchewan, CDC Forest was the top yielding green pea in both the north and south geographies which demonstrates good yield stability. It yielded 100% of the yellow pea check variety CDC Amarillo in the south and 101% in the north. It has good lodging resistance, medium maturity, medium seed size, good resistance to seed coat breakage, and protein is similar to CDC Amarillo. Although it is rated good for bleaching, some growers have indicated it is not as good as CDC Raezer for this trait.



CDC Forest

For more information on other pulse varieties available to growers, read this [pulse variety round-up article in Grainews](#).

## Pulse Varieties for the Future

There are a number of new pulse varieties that have been developed by the CDC that have been released through the Variety Release Program and are currently in seed production for future distribution. These new pulse varieties will be available to growers approximately 4-5 years after release to Select Seed Growers and include:

- Two new yellow pea varieties in 2021
- Two new small red lentil varieties in 2019 (CDC Nimble and CDC Simmie)
- One new large green lentil variety in 2021 (CDC Grimm)
- One new small green lentil variety in 2021 (CDC Jimini)
- Four new Kabuli chickpea varieties: CDC Lancer (2019), CDC Orkney (2020), and two in 2021
- Two new Desi chickpea varieties in 2021

To learn more about these new varieties and how they compare to others, check out the [2021 Pulse Variety Descriptions booklet](#).