

YELLOW PEA: CDC LEWOCHKO

Breeder: Dr. Tom Warkentin

Crop Development Centre
University of Saskatchewan
Saskatoon, SK.

Year released to Select Seed Growers: 2018

Sub-licensed outside of SK: SeCan

International Distribution Rights: No

Plant Breeders Rights: PBR'91

CDC Lewochko is a high yielding, mid-maturing, yellow cotyledon, semi-leafless field pea variety that has very good seed characteristics. In five years of testing in the co-op and regional trials in Saskatchewan, CDC Lewochko yielded 104% of the check variety CDC Amarillo in in the south and 103% in the north (Table 1). CDC Lewochko has PBR'91 protection.

Strengths:

- High yield in both north and south geographies
- Improved seed characteristic package - rated good for
 - Resistance to seed coat breakage
 - Resistance to dimpling (better than CDC Amarillo)
 - Greenness (less green coloration, better than CDC Inca or CDC Spectrum)
 - Shape (round)
- Medium-long vine length, taller than CDC Amarillo
- Good lodging resistance, similar to CDC Spectrum and CDC Amarillo, better than CDC Inca or CDC Meadow
- Powdery mildew resistance

Neutral:

- Medium seed size (similar to CDC Amarillo)
- Medium maturity
- Moderate protein (slightly higher than CDC Amarillo)
- Fair resistance to Mycosphaerella blight resistance and Fusarium wilt

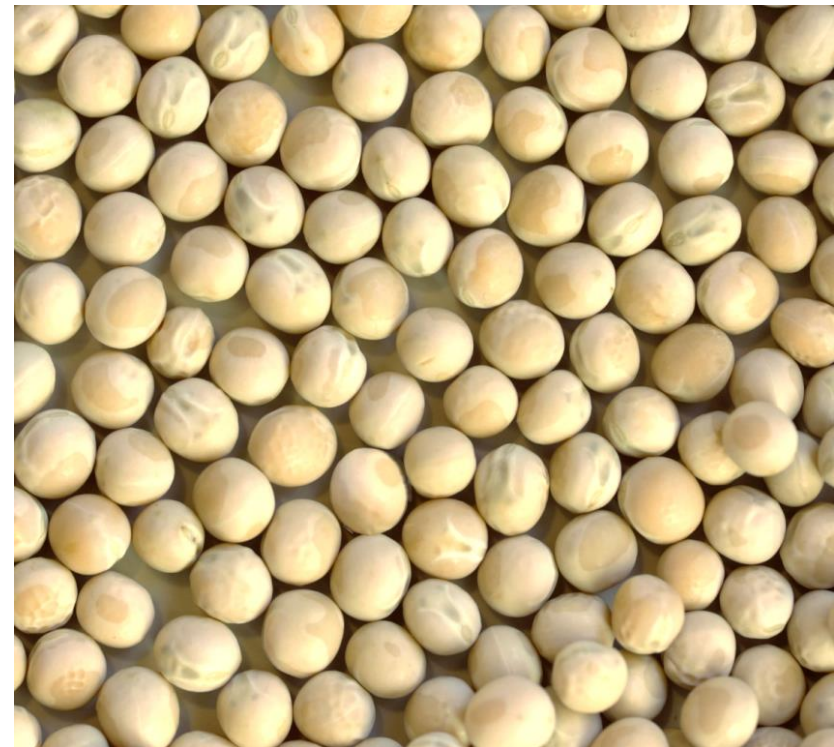


Table 1: Agronomic Performance for CDC Inca from Co-op and Regional Trials in Saskatchewan – Adapted from Varieties of Grain Crops 2019

Variety	Year Registered	Years Tested	Yield % Amarillo		Maturity	Lodging (1-9)	Vine Length (cm)	Resistance to:					Seed Weight (g/1000)	Protein vs. CDC Amarillo	
			1, 2 & South 3*	North 3 & 4*				Mycosphaerella Blight	Powdery Mildew	Fusarium Wilt	Seed Coat Breakage	Seed Coat Dimpling			Greenness
CDC Amarillo (check)	2012	10	100	100	Medium	3.5	85	4.5	R	MR	Fair	Fair	Good	230	23.0
Abarth	2012	7	93	90	Early	3.5	75	5.0	R	I	Fair	Good	Good	280	-0.1
AAC Ardill	2013	7	103	99	Medium	3.5	85	4.5	R	MR	Good	Good	Good	230	-1.9
AAC Asher	2017	3	103	100	Medium	4.5	75	4.5	R	I		Fair	Good	260	-0.6
CDC Athabasca	2016	7	93	97	Medium	3.0	85	4.5	R	I	Fair	Fair	Good	300	+0.5
CDC Canary	2017	6	97	98	Early	3.5	85	4.5	R	I	Good	Fair	Fair	230	-0.1
AAC Carver	2014	5	103	100	Early	4.0	85	5.0	R	I	Good	Fair	Good	240	-1.3
AAC Chrome	2017	4	105	102	Medium	4.5	75	4.5	R	I	Good	Good	Good	240	-1.2
CDC Inca	2015	7	104	99	Medium	4.0	85	4.5	R	I	Good	Good	Fair	230	-0.8
AAC Lacombe	2013	6	96	99	Medium	3.5	85	5.0	R	I	Fair	Fair	Fair	250	-0.9
CDC Lewochko	2018	5	104	103	Medium	3.5	90	4.5	R	I	Good	Good	Good	230	0.7
CDC Meadow	2006	10	92	89	Early	4.0	85	5.0	R	I	Good	Good	Good	220	-0.6
AAC Profit	2018	3	101	110	Medium	4.5	90		R	I	Good	Good	Good	230	0.6
CDC Saffron	2011	10	98	92	Early	4.0	80	4.5	R	I	Good	Fair	Good	250	-0.4
CDC Spectrum	2016	7	104	102	Medium	3.5	85	4.5	R	I	Good	Good	Fair	240	0.5

Source: Varieties of Grain Crops 2019 (SaskSeed Guide)

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

Lodging score: 1=Upright; 9=Completely lodged

Mycosphaerella blight score (1-9) 1=No disease, 9=Completely blighted

Seed coat dimpling: VG = 0-5%; G= 6-20%; F = 21-50%

Greenness: Good = 0-15%; Fair = 16-40%

Table 2: Disease Resistance Data of CDC Lewochko Compared to the Checks (Pea Co-op Test A, 2014-2015)

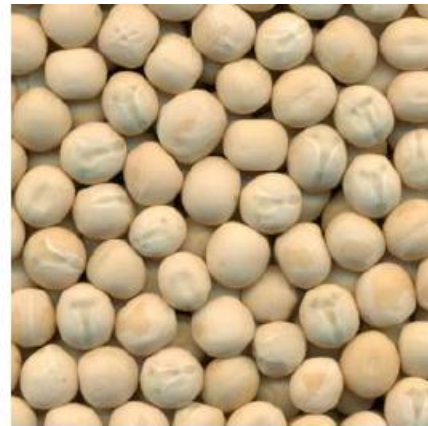
Variety	Mycosphaerella Blight				Fusarium Wilt (%)	Powdery Mildew
	MB	SK	Suth	AUDPC		
CDC Golden (check)	3.5	4.0	3.2	11.3	29	0.0
Agassiz (check)	3.2	3.3	3.0	10.3	19	0.0
CDC Lewochko	3.5	2.5	3.0	10.3	18	0.0
# locations	2	2	2	2	2	2

Myco=mycosphaerella blight assessed at Morden (MB), Saskatoon (SK) and Sutherland (Suth) where 1=No disease, 9=Completely blighted
 AUDPC=mycosphaerella blight area under the disease progress curve assessed at Morden
 Powdery mildew (0=No disease, 9=Completely mildewed)

Figure 1: Seed samples from the 2015 Pea Co-op Test A of CDC Lewochko and check varieties Agassiz and CDC Golden



CDC Lewochko



Agassiz



CDC Golden