

YELLOW PEA: CDC 4061-4

CDC 4061-4 is a mid-maturing yellow cotyledon, semi-leafless field pea variety. It was recommended for registration in 2016 and will be released to Select Seed Growers in Saskatchewan in 2018.

CDC 4061-4 was tested for two years in the Field Pea Co-op Registration Test “A” in 2014 - 2015. In these trials, the yield was 116% of the yellow pea check varieties CDC Golden and Agassiz (Table 1). In 4 years of testing in the Coop and Regional trials in Saskatchewan (Table 2), CDC 4061-4 yielded 104% of the check variety CDC Amarillo in in the south and 102% in the north. CDC 4061-4 has similar disease resistance to the check varieties CDC Golden and Agassiz (Table 3). Application for PBR’91 protection for CDC 4061-4 has been submitted to CFIA.

Strengths:

- Good yield; similar to CDC Spectrum
- Good lodging resistance; similar to CDC Spectrum and CDC Amarillo, better than CDC Inca or CDC Meadow
- Medium-long vine length, taller than the CDC Amarillo
- Powdery mildew resistance
- 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)

Neutral:

- Medium maturity
- Medium seed size (similar to CDC Amarillo)
- Moderate protein concentration
- Fair mycosphaerella blight resistance (similar to CDC Amarillo, CDC Inca or CDC Spectrum)
- Fair Fusarium wilt resistance (similar to Agassiz)

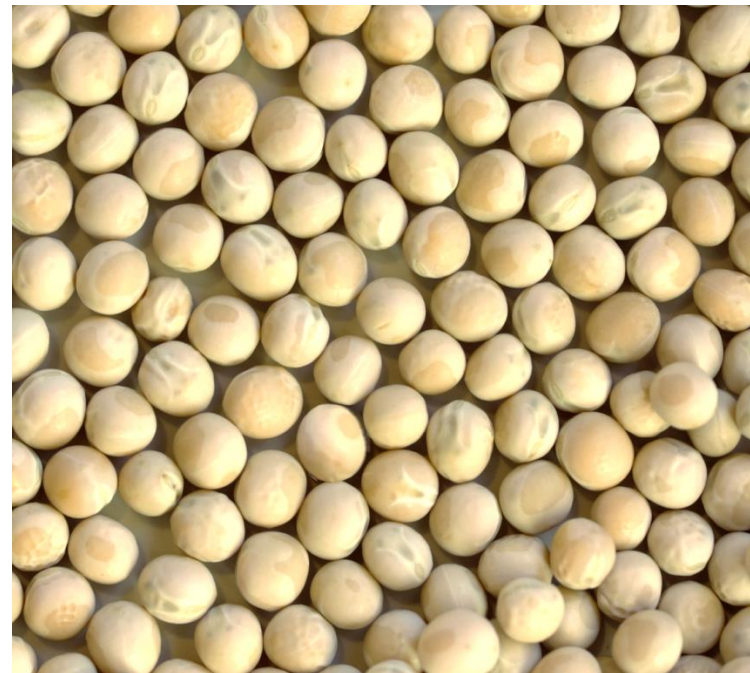


Table 1: Agronomic performance of CDC 4061-4 compared to the checks (Pea Co-op Test A, 2014-2015)

Variety	Yield (kg/ha)	Yield (% mean of checks)	Days to maturity	Vine length (cm)	Lodging (pre-harvest)	Seed wt (mg)	Seed shape	Crude protein (%)
CDC Golden (check)	3144	98	93	68	4.1	213	2.5	21.2
Agassiz (check)	3282	102	94	72	3.9	229	2.9	20.8
CDC 4061-4	3728	116	97	78	3.0	231	2.5	21.0
# locations	22		20	19	24	19	18	5

Lodging score: 1=upright; 9=completely lodged; Seed shape: 1=round; 5=cubic

Table 2: Agronomic performance for CDC Canary from Co-op and Regional trials in Saskatchewan

Variety	Year of release	Years Tested	Yield % Amarillo		Maturity	Lodging (1-9) ¹	Vine Length (cm)	Resistance to:					Seed Weight (g/1000)	Protein	
			1, 2 & South 3*	North 3 & 4*				Mycosphaerella Blight	Powdery Mildew	Fusarium Wilt	Seed Coat Breakage	Seed Coat Dimpling			Greenness
CDC Amarillo	2012	9	100	100	Medium	3.5	85	4.5	R	MR	Fair	Fair	Good	230	23.0
CDC Golden	2003	9	91	82	Early	4.5	75	5.0	R	I	Good	Good	Good	230	23.7
CDC Meadow	2006	9	91	89	Early	4.0	85	5.0	R	I	Good	Good	Good	220	22.6
CDC Hornet	2010	8	91	84	Medium	4.0	85	4.5	R	I	Fair	Good	Good	220	22.6
CDC Saffron	2011	9	98	91	Early	4.0	80	4.5	R	I	Good	Fair	Good	250	22.7
CDC Inca	2015	6	104	100	Medium	4.0	85	4.5	R	I	Good	Good	Fair	230	21.9
CDC Spectrum	2016	6	104	102	Medium	3.5	85	4.5	R	I	Good	Fair/Good	Fair	240	23.7
CDC Athabasca	2016	6	93	99	Medium	3.0	85	4.5	R	I	Fair	Fair	Good	300	23.8
CDC Canary	2017	5	96	98	Early	3.5	85	4.5	R	I	Good	Fair	Fair	230	23.0
CDC 4061-4	2018	4	104	102	Medium	3.5	90	4.5	R	I	Good	Good	Good	230	23.5

*Area 1: Brown soil zone; Area 2: Dark brown; Area 3: Black; Area 4: Dark gray ¹Lodging score: 1=upright; 9=completely lodged

Table 3: Disease resistance data of CDC 4061-4 compared to the checks (Pea Co-op Test A, 2014-2015)

Variety	Myco (MB)	Myco (SK)	Myco (Suth)	AUDPC-MB	Fusarium wilt (%)	Powdery mildew
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 4061-4	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): (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 4061-4 and check varieties Agassiz and CDC Golden:



CDC 4061-4



Agassiz



CDC Golden