

YELLOW PEA: CDC SPECTRUM

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Year released to Select Seed Growers: 2016

Sub-licensed outside of SK: SeCan

International Distribution Rights: Canterra Seeds Ltd./Meridian Seeds

Plant Breeders Rights: PBR'91

CDC Spectrum was tested for two years in the field pea co-op registration test "B" in 2012-2013. In these trials, the yield was 111% of the mean of the yellow pea check varieties CDC Golden and Agassiz (Table 2). In seven years of testing in the co-op and regional trials in Saskatchewan (Table 1), CDC Spectrum yielded 4% higher than the check variety CDC Amarillo in the southern regions, and 2% higher in the north. CDC Spectrum has PBR'91 protection.

Strengths:

- High yield
- Medium vine length
- Powdery mildew resistance

Neutral:

- Low seed coat breakage percent
- Medium seed size
- Round seed shape
- Medium maturity
- Moderate protein (slightly higher than CDC Amarillo)
- Moderate cooking time
- Fair resistance to *Mycosphaerella* blight resistance and *Fusarium* wilt



Table 1: Agronomic Performance for CDC Spectrum 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: Performance of CDC Spectrum Compared to the Checks (Pea Co-op Test B, 2012-2013)

Variety	Yield (kg/ha)	Yield (% mean of checks)	Days to Maturity	Vine Length (cm)	Lodging (pre-harvest)	Seed Weight (mg)	Shape	Seed Coat Breakage (%)	Crude Protein (%)	Cooking Time (min)
CDC Golden (check)	4743	95	96	85	5.0	206	2.5	1	24.7	10.8
Agassiz (check)	5196	105	98	87	4.4	219	2.5	5	23.8	10.1
CDC Spectrum	5501	111	100	90	3.2	232	2.5	2	23.9	14.3
CV	8.3									
LSD 05	266		1.1	3.7	0.4	6.3	0.1	4.2	0.6	2.9
# locations	21		19	16	21	21	21	7	11	2

Source: CDC Pulse breeding group, U of S

Lodging score: 1=Upright; 9=Completely lodged

Seed shape: 1=Round; 5=Cubic

Cooking time = Mattson cooking time (min)

Figure 1: Seed from the 2013 Pea Co-op Test B at Saskatoon of CDC Spectrum and check varieties Agassiz and CDC Golden



CDC Spectrum

Agassiz

CDC Golden