

GREEN PEA: CDC LIMERICK

Breeder: Dr. Tom Warkentin

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University of Saskatchewan
Saskatoon, SK.

Year released to Select Seed Growers: 2012

Sub-licensed outside of SK: No

International Distribution Rights: Canterra Seeds Ltd./Meridian Seeds

Plant Breeders Rights: No

CDC Limerick is a high protein, green cotyledon, semi-leafless field pea variety. Its intense green color and resistance to bleaching is a strong asset for this variety. CDC Limerick ranked as the highest protein pea versus both yellow and green pea varieties in the 2019 co-op and regional trials in Saskatchewan (Table 1). In two years of testing in the field pea co-op registration trial in 2009–2010, CDC Limerick yielded 99% of the mean of the green pea check varieties CDC Striker and Cooper (Table 2). In 10 years of testing in the Saskatchewan co-op and regional trials, CDC Limerick yielded 95% of CDC Amarillo in the south and 90% in the north (Table 1). CDC Limerick does not have PBR protection.

Strengths:

- Good bleaching resistance
- Intense green cotyledon color
- High protein concentration
- Medium vine length
- Good lodging resistance, similar to CDC Amarillo
- Good resistance to seed coat breakage
- Powdery mildew resistance

Neutral:

- Good yield
- Medium maturity
- Round seed shape
- Medium seed weight
- Moderate cooking time
- Fair resistance to *Mycosphaerella* blight and *Fusarium* wilt

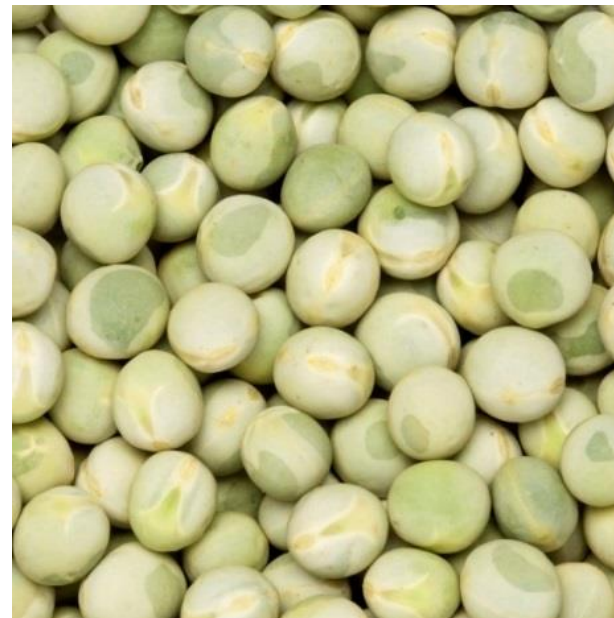


Table 1: Agronomic Performance for CDC Limerick from Co-op and Regional Trials in Saskatchewan – Adapted from Varieties of Grain Crops 2019

Variety	Year Registered	Years Tested	Yield % Amarillo		Maturity	Lodging (1-9)	Vine Length	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	Bleaching		
CDC Amarillo (check)	2012	10	100	100	Medium	3.5	85	4.5	R	MR	F	F	n/a	230	23.0
Blueman	2018	3	91	88	Medium	4.5	85	4.5	R	I	n/a	G	F	220	+0.3
AAC Comfort	2016	4	90	99	Medium	4.5	85	4.5	R	I	G	G	G	250	-0.4
Cooper	2004	8	89	80	Medium	4.0	80	5.0	R	I	F	G	F	270	+0.9
CDC Forest	2017	6	100	101	Medium	4.0	85	4.5	R	I	G	G	G	230	-0.2
CDC Greenwater	2014	9	99	92	Medium	3.5	90	4.0	R	MR	F	F	G	230	-1.1
CDC Limerick	2012	10	95	90	Medium	3.5	85	4.0	R	I	G	G	G	210	+2.8
CDC Patrick	2008	10	87	86	Medium	4.5	80	4.5	R	MR	G	G	G	190	-1.0
CDC Pluto	2010	8	92	84	Medium	5.5	80	4.5	R	I	G	G	G	160	-0.2
AAC Radius	2014	6	77	77	Medium	5.0	85	4.5	R	I	VG	G	G	230	+0.5
CDC Raezer	2011	10	81	80	Early	3.5	85	5.0	R	MR	G	G	G	220	-0.3
AAC Royce	2014	5	92	84	Medium	5.0	70	5.0	R	I	F	F	G	260	+0.4
CDC Sage	2005	5	73	71	Medium	4.0	80	5.0	R	MR	G	F	G	220	n/a
CDC Spruce	2016	7	94	99	Medium	4.0	85	4.5	R	I	F	F	G	240	+0.1
CDC Striker	2002	10	81	80	Medium	3.5	80	4.5	S	MR	VG	G	G	240	+2.0

Source: Varieties of Grain Crops 2019 (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: Agronomic Performance of CDC Limerick Compared to the Checks (Pea Co-op Test A, 2009 - 2010)

Variety	Yield (kg/ha)	Yield (% mean of checks)	Days to Maturity	Lodging	Seed Weight (mg)	Shape	Bleach	Green Colour Intensity	Seed Coat Breakage (%)	Crude Protein (%)	Cooking Time (min)
CDC Striker (check)	4966	97	104	3.5	244	1.9	3.0	3.5	5	24.9	33.9
Cooper (check)	5265	103	106	3.9	269	3.2	3.3	3.9	16	23.8	36.6
CDC Limerick	5256	99	106	3.0	207	2.1	2.6	2.8	2	26.0	36.5
CV	9										
LSD 05	301		0.9	0.6	6.9	0.3	0.2	0.2	5.2	0.6	26.4
# locations	20		20	20	20	20	20	20	8	12	2

Source: CDC Pulse breeding group, U of S

Lodging score: 1=Upright; 9=Completely lodged

Seed shape: 1=Round; 5=Cubic

Bleaching score: 1=No bleaching, 5=Completely bleached

Green colour intensity: 1=Very intense; 5=Pale

Cooking time = Mattson cooking time (min)

Table 3: Disease Resistance Data of CDC Limerick Compared to the Checks (Pea Co-op Test A, 2009 - 2010)

Variety	Myco (MB)	Myco (SK)	AUDPC-MB	Fusarium Wilt (%)	Powdery Mildew
CDC Striker (check)	5.7	5.7	16.2	4.8	5
Cooper (check)	5.4	5.4	15.3	15.9	0
CDC Limerick	5.0	5.5	15.2	9.4	0
LSD 05	0.45	1.74	2.7	6.6	1.9
# locations	2	2	2	2	2

Source: CDC Pulse breeding group, U of S

Myco (MB)=mycosphaerella blight assessed at Morden, MB (1=No disease, 9=Completely blighted); Myco (SK)=mycosphaerella blight assessed at Saskatoon, SK.

AUDPC=mycosphaerella blight area under the disease progress curve assessed at Morden; Powdery mildew (0=No disease, 9=Completely mildewed)