

## MEMORANDUM

TO: Prairie Recommending Committee for Pulse and Special Crops  
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DATE: February 10, 2022  
SUBJECT: **Request for support for registration of green cotyledon field pea variety CDC 5928-6**

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### Strengths

- Improved yield (110%) compared to the mean of the green checks (CDC Limerick and CDC Greenwater)

### Neutral traits

- Good lodging resistance, similar to the checks
- Medium-long vine length, similar to the checks
- Medium maturity, similar to the checks
- Medium seed weight, greater than CDC Limerick, slightly less than CDC Greenwater
- Round seed shape, slightly rounder than CDC Greenwater, slightly blockier than CDC Limerick
- Moderately low seed coat breakage percentage, similar to CDC Greenwater, more than CDC Limerick
- Powdery mildew resistance, same as the checks
- Fair mycosphaerella blight resistance, similar to the checks
- Moderate Fusarium root rot resistance, similar to the checks

### Limitations

- Lower seed protein concentration than the checks

### Description

Green cotyledon, semileafless field pea variety CDC 5928-6 was tested in the Field Pea Co-operative Registration Test-A in 2020 and 2021. Performance data for CDC 5928-6 are summarized in accompanying Table 1. Seed photos for CDC 5928-6 and check varieties are in Fig 1.

Table 1. Performance of green pea variety CDC 5928-6 compared to the checks (Pea Co-op Test-A, 2020-2021)

Variety	Yield				Seed									PM
	[21] kg/ha	[19] % of green	[19] DTM	[17] VLTH	[13] PHL (1-9)	[12] Weight (g/1000)	[12] Shape (1-5)	[12] Bleach (1-5)	[12] GCI (1-5)	[13] Protein (%)	[4] Myco (0-9)	[11] SCB (%)	[2] FRR (1-7)	
CDC Limerick	3478	99	91	70	3.0	205	2.2	2.5	2.5	25.5	4.0	2.2	3.0	R
CDC Greenwater	3553	101	92	70	2.8	229	2.7	3.1	3.1	23.1	3.9	6.7	4.0	R
<b>CDC 5928-6</b>	3875	110	91	69	2.9	223	2.5	2.9	2.9	22.5	3.9	6.0	3.8	R
CV	7.1		1.4	6.7	19.4	3.4	10.9	13.5	10.6	3.2	10.1	53.1	16.8	Na
LSD	135.7		0.7	2.6	0.3	5.2	0.2	0.3	0.2	0.5	0.5	2.4	1.8	Na

Yield: % of green = percent yield of the average yield of green checks;

DTM = Days to maturity; VLTH = Vine length (cm); PHL = Pre-harvest lodging score (1=upright, 9=flat);

Shape: 1=round, 5=blocky; Bleach: 1=no bleach, 5=completely bleached;

GCI: green colour intensity: 1=intense, 5=not intense

SCB=seed coat breakage

Myco: mycosphaerella blight, where 0=no disease, 9=completely blighted

FRR: Fusarium root rot, PM: powdery mildew where R=resistant, S=susceptible

[X] number of locations

Fig. 1. Scans of seed samples from the 2021 Pea Co-op Test-A at Brandon, MB of CDC 5928-6 and check varieties CDC Limerick and CDC Greenwater.

