

MEMORANDUM

TO: Prairie Recommending Committee for Pulse and Special Crops
FROM: T.D. Warkentin, B. Tar'an, S. Banniza, G. Arganosa, B. Barlow, J. Horner, D. de Silva, S. Wagenhoffer, K. Mikituk, Y. Liu, A. Weerasinghe, and D. Raymond
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DATE: January 11, 2023
SUBJECT: **Request for support for registration of forage pea variety CDC 5856-3**

Strengths

- Improved dry matter biomass yield compared to check varieties CDC Sonata and CDC Jasper.
- Improved grain yield compared to check varieties CDC Sonata and CDC Jasper.
- Powdery mildew resistance.

Neutral traits

- Good lodging resistance, similar to CDC Jasper, better than CDC Sonata.
- Medium-long vine length, similar to CDC Sonata, longer than CDC Jasper.
- Medium maturity, similar to the checks.

Limitation

- Greater seed weight compared to CDC Jasper, similar to CDC Sonata.

Description

Yellow cotyledon, semileafless forage pea variety CDC 5856-3 was tested in the CDC Pea Silage Elite Yield Trial in 2019-2022. Performance data for CDC 5856-3 are summarized in accompanying Table 1. Seed photos for CDC 5856-3 and check varieties are in Fig 1.

Table 1. Four-year (2019-2022) summary of the performance of forage pea variety CDC 5856-3 compared to check varieties CDC Sonata and CDC Jasper in the CDC Pea Silage Elite Yield Trial.

<i>locations</i>	6	6	7	7	5	7	7	7	7
Variety	DM yield (tonnes/ha)	DM yield (%)	Grain yield (kg/ha)	Grain yield (%)	Seed weight (g/1000 seeds)	Ht (cm)	Mat (1-3)	Lodg (1-9)	PM
CDC Sonata	3.9	100	2221	100	219	82	2.3	6.9	R
CDC Jasper	4.2	108	2260	102	198	71	1.9	4.1	R
CDC 5856-3	4.7	121	2702	122	232	89	2.2	4.7	R
GRAND MEAN	4.3		2394		216	81	2.1	5.2	
CV	14.5		12.6		8.7	10.0	14.9	11.3	
LSD	0.6		287		22.2	7.7	0.3	0.6	

Notes

DM=dry matter biomass, sampled when CDC Sonata had thick pods on first two flowering nodes

Ht=plant height (aka vine length)

Maturity=maturity rating where 1=early to 3=late

Lodging=lodging score where 1=upright to 9=completely lodged

PM=powdery mildew reaction where R=resistant, S=susceptible

Fig. 1. Scans of seed samples from the 2022 CDC Pea Silage Elite Yield Trial at Saskatoon (Sutherland) of forage pea variety CDC 5856-3 and check varieties CDC Sonata and CDC Jasper.

