Technical Bulletin

Genes that fit your farm.



CDC Forest Green Field Pea



Description:

CDC Forest is a very high yielding green cotyledon, semileafless field pea with good lodging tolerance, improved mycosphaerella blight resistance and powdery mildew resistance.

Parentage: CDC Bronco/Nitouche//Argus

Strengths:

- Improved yield (117%) compared to the mean of the green check varieties (CDC Striker and Cooper)
- Fair mycosphaerella resistance, better than the checks
- Powdery mildew resistance

Neutral:

- · Good lodging resistance; similar to checks
- Medium vine length, slightly taller than the checks

- Medium maturity, 1 day later than Cooper, and 3 days later than CDC Striker
- Medium seed size, slightly smaller than the checks
- Round seed shape, blockier than CDC Striker but rounder than Cooper
- Low seed coat breakage percent, similar to Cooper and less than CDC Striker
- Good bleaching resistance
- Moderate green colour intensity, similar to checks
- Fair Fusarium wilt resistance; similar to checks

Breeder: Funded by:



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Table 1: Agronomic performance of CDC Forest compared to the checks (Pea Co-op Test A, 2013-2014)

Variety	Yield (kg/ha)	Yield (% mean of checks)	Days to maturity	Vine length (cm)	Lodging (pre- harvest)	Seed wt (mg)	Seed shape	Seed coat breakage (%)	Bleaching	GCI	Crude protein (%)
CDC Striker	4181	98	97	80	3.9	242	2.5	0.3	3.0	3.5	25.1
Cooper	4310	102	99	82	3.8	257	3.1	5.5	3.2	3.9	23.7
CDC Forest	4948	117	100	86	3.8	230	2.9	2.1	3.2	3.7	23.7
CV	10										
LSD 05	332		0.9	6.9	0.5	9.3	0.2	1.9	0.2	0.2	0.9
# locations	22		20	17	23	19	20	4	19	20	9

Lodging score: 1=upright; 9=completely lodged

Shape: 1=round; 5=cubic

Table 2: Disease resistance data of CDC Spectrum compared to the checks (Pea Co-op Test B, 2012-2013)

Variety	Myco (MB)	Myco (SK)	AUDPC- SK	Fusarium wilt (%)	Powdery mildew	
CDC Striker (check)	4.5	3.8	15.7	25	7.4	
Cooper (check)	4.0	3.8	12.9	32	0	
CDC Forest	4.3	3.0	15.5	29	0	
LSD 05	1.3	.7	2.8	21.8	1.0	
# locations	2	2	2	2	2	

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

Powdery mildew (0=no disease, 9=completely mildewed

2024 Seed Manitoba

	Yield			Relative		Resistance to:												
	(% of AAC	Site Years	Relative	Vine	Seed Size		Powdery		Fusarium	Green Seed	Seed Coat	Seed Coat	Bleaching					
Variety	Carver)	Tested	Maturity	Length	(TKW)	Lodging	Mildew	MB ¹	Wilt ²	Coat ³	Breakage	Dimpling ⁴						
AAC Carver (C)	100	52	Early	L	249	G	VG	F	F	G	Ð	G	N/A					
CDC Spruce	96	19	Long	L	240	G	VG	F	F	N/A	F	F	G					
CDC Forest	99	34	Long	L	230	G	VG	F	F	N/A	G	G	G					

- 1. Mycosphaerella Blight
- 2. Varieties which show good disease tolerance to one strain of Fusarium wilt may be susceptible to other strains
- 3. Green seed coats: G= 0-10%, F= 11-25%
- 4. Seed coat dimpling rating: VG= 0-5%, G= 6-20%, F= 21-50%

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		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)		Yield (% of CDC Amarillo)									Resistance	to:		
Variety	Years Tested	1, 2 & South 3	North 3 & 4	Irrigation	Protein	Relative Maturity	Lodging ¹	Vine Length (cm)	MB ²	Powdery Mildew		Seed Coat Breakage		Seed Coat	Greenness⁴	Seed Weight (g/1000)														
CDC Amarillo (C)	14	100	100	100	23.0	M	3.5	85	4.5	R	MR	F	N/A	F	G	230														
CDC Greenwater	11	99	93	89	-0.9	М	3.5	90	4.0	R	MR	F	G	F	N/A	230														
CDC Spruce	13	97	98		+0.3	М	4.0	85	4.5	R		F	G	F	N/A	240														
CDC Forest	11	102	103		0.0	М	4.0	85	4.5	R		G	F	G	N/A	230														

- 1 Lodging: 1= completely upright, 9= completely lodged
- 2 Mycosphaerella Blight score (1-9) 1= no disease, 9= completely blighted
- 3 Seed coat dimpling: VG= 0-5%, G= 6-20%, F= 21-50%
- 4 Green seed coats: G= 0-15%, F= 16-40%

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			Brown - Brown Irrigated		own	Black	-short	Black-mid		Grey Wooded						Disease T	olerance⁵		Resistance	to:	
Variety		Overall Station Years of Testing	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Maturity Rating ¹	Vine Length (cm)	Seed Size (TKW)	Stand- ability ²	MB ³	Fusarium Wilt	Bleach ing	Seed Coat Breakage	Seed Coat
CDC Limerick (C)		56	100	5	100	7	100	13	100	18	100	13	М	85	210	3.0	4.5	I	G	VG	G
CDC Spruce	106	32	XX	2	XX	5	109	7	109	11	103	7	М	85	240	2.3	4.5	I	G	F	F
CDC Forest	108	56	XX	5	110	7	110	13	106	18	111	13	М	85	230	2.2	4.5	I	G	G	G

- 1. Maturity: E= Early, M= Medium, L= Late
- 2. Standability: 1= completely upright 9= completely lodging
- 3. Mycosphaerella Blight, P= Poor, F= Fair, G= good, VG= Very Good R= Resistant
- 4. Seed Coat Dimpling: VG= 0-5%, G= 6-20%, F= 21-50%
- 5. Disease Tolerance: P = poor, F = Fair, G = Good and VG = Very Good