

# Technical Bulletin

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## CDC Forest Green Field Pea



Progress Through Research  
Le progrès grâce à la recherche

### Description:

CDC Forest is a very high yielding green cotyledon, semi-leafless 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:



UNIVERSITY OF SASKATCHEWAN

Crop Development Centre

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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
<b>CDC Forest</b>	<b>4948</b>	<b>117</b>	<b>100</b>	<b>86</b>	<b>3.8</b>	<b>230</b>	<b>2.9</b>	<b>2.1</b>	<b>3.2</b>	<b>3.7</b>	<b>23.7</b>
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
<b>CDC Forest</b>	<b>4.3</b>	<b>3.0</b>	<b>15.5</b>	<b>29</b>	<b>0</b>
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)

For more information, call 1-800-665-7333 or visit [www.secan.com](http://www.secan.com)

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## 2020 Seed Manitoba

Variety	Yield (% of CDC Meadow)	Site Years Tested	Relative Maturity	Relative Vine Length	Seed Size (TKW)	Resistance to:							
						Lodging	Powdery Mildew	MB <sup>1</sup>	Fusarium Wilt <sup>2</sup>	Green Seed Coat <sup>3</sup>	Seed Coat Breakage	Seed Coat Dimpling <sup>4</sup>	Bleaching
CDC Meadow (C)	100	79	E	M	220	G	VG	F	F	G			N/A
CDC Spruce	101	13	M	L	240	G	VG	F	F	N/A	F	F	G
CDC Greenwater	100	28	L	M	220	G	VG	F	G	N/A	VG	G	G
CDC Forest	105	13	M	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%

## 2020 SaskSeed Guide

Variety	Years Tested	Yield (% of CDC Amarillo)			Protein	Relative Maturity	Lodging <sup>1</sup>	Vine Length (cm)		Resistance to:						Seed Weight (g/1000)
		1, 2 & South 3	North 3 & 4	Irrigation				MB <sup>2</sup>	Powdery Mildew	Fusarium Wilt	Seed Coat Breakage	Seed Coat Dimpling <sup>3</sup>	Greenness <sup>4</sup>			
CDC Amarillo (C)	11	100	100	100	23.0	M	3.5	85	4.5	R	MR	F	F	G	230	
CDC Spruce	8	95	99	---	+0.1	M	4.0	85	4.5	R	I	F	G	F	240	
CDC Greenwater	10	100	93	89	-1.1	M	3.5	90	4.0	R	MR	F	G	F	230	
CDC Limerick	11	96	90	91	+2.8	M	3.5	85	4.0	R	I	G	G	G	210	
CDC Forest	7	101	101	---	-0.2	M	4.0	85	4.5	R	I	G	G	G	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%

## 2020 Alberta Seed Guide

Variety	Overall Yield	Station Years of Testing	Area 1		Area 2		Area 3		Area 4		Area 5		Maturity Rating	Vine Length (cm)	Seed Size (TKW)	Lodging <sup>1</sup>	MB <sup>2</sup>	Fusarium Wilt	Bleaching	Seed Coat Breakage <sup>3</sup>	Seed Coat Dimpling <sup>4</sup>
			Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years									
CDC Limerick (C)	100	106	100	18	100	33	100	17	100	30	100	8	M	78	211	3	F	F	G	VG	G
CDC Spruce	105+	30	104	6	107+	9	108+	5	99	7	108	3	M	81	254	2.3	F	F	G	G	F
CDC Forest	109+	30	121+	6	109+	9	108	5	102	7	108+	3	M	81	236	2.2	F	F	G	G	G

1. Lodging: 1= completely upright 9= completely lodging
  2. Mycosphaerella Blight
  3. Seed Coat Dimpling: VG= 0-5%, G= 6-20%, F= 21-50%
  4. Green Seed Coat: G= 0-10%, F= 11-25%
- Resistance: P= Poor, F= Fair, G= good, VG= Very Good R= Resistant
- Maturity: E= Early, M= Medium, L= Late

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