

# Technical Bulletin

Genes that fit *your* farm.



## CDC Tollefson Yellow Field Pea



Progress Through Research  
Le progrès grâce à la recherche

### Description:

CDC Tollefson is a very high yielding yellow field pea with medium-long vine length, good standability, and good resistance to seed coat breakage, dimpling, and less green colouration. CDC Tollefson should be an excellent fit for all pea growing areas of Western Canada.

**Parentage:** CDC 2648-21//MP1899/2847-21

### Strengths:

- 107% yield of CDC Amarillo
- Good lodging resistance; similar to CDC Amarillo and AAC Lacombe
- Powdery mildew resistance
- Moderate resistance rating to Fusarium wilt
- Improved seed characteristic package- rated good for:
  - Resistance to seed coat breakage
  - Resistance to dimpling

- Greenness (less green colouration) better than CDC Inca or CDC Spectrum

### Neutral Traits:

- -0.6% lower protein than CDC Amarillo
- Medium-late maturity, 2 days later than CDC Amarillo
- Medium seed size, slightly larger than CDC Amarillo, but smaller than AAC Lacombe
- Fair Mycosphaerella blight resistance (similar to CDC Amarillo or CDC Lewochko)

### PBR 91 Protected

#### Breeder:

#### Funded by:



UNIVERSITY OF SASKATCHEWAN  
Crop Development Centre  
COLLEGE OF AGRICULTURE AND BIORESOURCES  
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**Table 1: Performance of CDC Tollefson compared to the checks (Pea Co-op Test A, 2017-2018)**

Variety	Yield (kg/ha)	Yield (% mean of checks)	Days to maturity	Vine length (cm)	Lodging (pre-harvest)	Seed wt (mg)	Shape	Seed Coat Breakage (%)	Crude protein (%)
CDC Amarillo (check)	3790	101	93	81	2.4	231	2.5	12	24.5
AAC Lacombe (check)	3700	99	93	77	2.7	260	2.5	9	23.1
<b>CDC Tollefson</b>	<b>4060</b>	<b>108</b>	<b>95</b>	<b>86</b>	<b>2.5</b>	<b>244</b>	<b>2.5</b>	<b>4</b>	<b>23.9</b>
# of locations	24		22	20	23	24	18	11	13

Lodging score: 1=upright; 9=completely lodged  
Shape: 1=round; 5=cubic

**Table 2: Performance of CDC Tollefson compared to the checks (Pea Co-op Test A, 2017-2018)**

Variety	Mycosphaerella blight (AB)	Mycosphaerella blight (SK)	Fusarium wilt (%)	Powdery mildew
CDC Amarillo (check)	3.3	5.1	5.6	0
AAC Lacombe (check)	2.3	5.2	5.5	0
<b>CDC Tollefson</b>	<b>1.7</b>	<b>4.6</b>	<b>5.0</b>	<b>0</b>
# locations	2	2	2	2

Mycosphaerella blight (MB)= Mycosphaerella blight assessed at Morden, MB (1=no disease, 9=completely blighted)  
Mycosphaerella blight (SK)= Mycosphaerella blight assessed at Saskatoon, SK.  
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)

## 2024 Seed Manitoba

Variety	Yield % of Check	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>
CDC Amarillo (C)	98	50	Long	M	230	VG	VG	F	G	G	F	F
CDC Hickie	100	14	Mid	M	230	VG	VG	F	G	G	G	G
CDC Lewochko	100	42	Long	L	230	VG	VG	F	F	G	G	G
CDC Spectrum	93	42	Long	L	240	VG	VG	F	F	G	G	G
<b>CDC Tollefson</b>	<b>102</b>	<b>14</b>	<b>Long</b>	<b>L</b>	<b>240</b>	<b>VG</b>	<b>VG</b>	<b>F</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>

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%

## 2024 Saskatchewan Seed 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)	14	100	100	100	23.0	M	3.5	85	4.5	R	MR	F	F	G	230
CDC Boundless	4	109	100	---	+0.8	M	3.0	90	4.5	R	MR	G	G	G	230
CDC Canary	10	99	100	---	+0.1	E	3.5	85	4.5	R	I	G	F	F	230
CDC Hickie	7	107	106	---	+0.5	M	3.5	85	4.5	R	MR	G	G	G	230
CDC Lewochko	10	104	104	---	+0.9	M	3.5	90	4.5	R	I	G	G	G	230
CDC Spectrum	12	105	103	94	+0.7	M	3.5	85	4.5	R	I	G	G	F	240
<b>CDC Tollefson</b>	<b>7</b>	<b>108</b>	<b>108</b>	<b>---</b>	<b>-0.3</b>	<b>M</b>	<b>3.0</b>	<b>90</b>	<b>4.0</b>	<b>R</b>	<b>MR</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>240</b>

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%

## 2024 Alberta Seed Guide

Variety	Overall Yield	Overall Station Years of Testing	Brown - Irrigated		Brown		Black-short		Black-mid		Grey Wooded		Agronomic Characteristics:					Disease Tolerance <sup>5</sup>		Tolerance to:		
			Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Protein (%)	Maturity Rating <sup>1</sup>	Vine Length (cm)	Seed Size (TKW)	Standability <sup>2</sup>	MB <sup>3</sup>	Fusarium Wilt	Seed Coat Breakage
CDC Amarillo (C)	100	58	100	3	100	7	100	14	100	23	100	11	23.0	M	85	230	2.4	4.5	MR	F	F	G
CDC Canary	103	58	XX	3	95	7	104	14	105	23	103	11	+0.1	E	58	230	2.6	4.5	I	G	F	F
CDC Hickie	104	16	XX	1	XX	1	XX	4	107	7	XX	3	+0.5	M	85	230	2.6	4.5	MR	G	G	G
CDC Lewochko	103	58	XX	3	98	7	104	14	104	23	103	11	+0.9	M	90	230	1.6	<b>4.5</b>	I	G	G	G
CDC Spectrum	103	58	XX	3	94	7	105	14	104	23	103	11	+0.7	M	85	240	2.1	4.5	I	G	G	F
<b>CDC Tollefson</b>	<b>106</b>	<b>16</b>	<b>XX</b>	<b>1</b>	<b>XX</b>	<b>1</b>	<b>XX</b>	<b>4</b>	<b>109</b>	<b>7</b>	<b>XX</b>	<b>3</b>	<b>-0.3</b>	<b>M</b>	<b>90</b>	<b>240</b>	<b>2.5</b>	<b>4.0</b>	<b>MR</b>	<b>G</b>	<b>G</b>	<b>G</b>

1. Maturity: E= Early, M= Medium, L= Late
2. Standability: 1= completely upright, 9= completely lodging
3. Mycosphaerella Blight: 1= no disease, 9= completely blighted
4. Seed Coat Dimpling: VG= 0-5%, G= 6-20%, F= 21-50%
5. Disease Tolerance: I= intermediate, MR= moderately resistance, R= resistant
6. Green Seed Coat: G= 0-10%, F= 11-25%

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