

# Technical Bulletin

Genes that fit *your* farm.

**SeCan**

Canada's Seed Partner

## CDC Athabasca Yellow Field Pea



Progress Through Research  
Le progrès grâce à la recherche

### Description:

CDC Athabasca is a high yielding yellow cotyledon, semi-leafless field pea with large seed size, medium vine length, good lodging tolerance and powdery mildew resistance.

**Parentage:** Ceb4152/1658-7

### Strengths:

- 7% higher yield compared to the mean of the yellow checks CDC Golden and Agassiz
- Jumbo seed size, larger than the checks
- Better lodging resistance than the checks
- Medium vine length, longer than the checks
- Powdery mildew resistant

### Neutral Traits:

- Medium maturity, 1 day later than Agassiz, 3 days later than CDC Golden

- Round seed shape, slightly blockier than the checks
- Low seed coat breakage percent, same as Agassiz, slightly greater than CDC Golden
- Moderate protein concentration, similar to the checks
- Fair mycosphaerella blight resistance; similar to the checks
- Fair Fusarium wilt resistance; similar to the checks

**Breeder:**

**Funded by:**



UNIVERSITY OF SASKATCHEWAN

Crop Development Centre

COLLEGE OF AGRICULTURE AND BIORESOURCES  
AGBIO.USASK.CA



**Table 1: Performance of CDC Athabasca compared to the checks (Pea Co-op Test A, 2012-2013)**

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 Golden (check)	4604	96	96	83	4.4	206	2.5	1	25.0
Agassiz (check)	5023	104	98	86	4.0	223	2.6	6	23.9
<b>CDC Athabasca</b>	<b>5104</b>	<b>107</b>	<b>99</b>	<b>93</b>	<b>3.0</b>	<b>291</b>	<b>2.8</b>	<b>6</b>	<b>24.4</b>
CV	8.5								
LSD 05	259		0.74	3.2	0.45	6.4	0.11	1.6	0.6
# locations	21		19	17	21	21	21	7	11

Lodging score: 1=upright; 9=completely lodged

Shape: 1=round; 5=cubic

Cooking=Mattson cooking time (min);

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

Variety	Myco (MB)	Myco (SK)	AUDPC-SK	Fusarium wilt (%)	Powdery mildew
CDC Golden (check)	4.9	6.4	15.3	49	0
Agassiz (check)	4.7	6.0	14.5	32	0
<b>CDC Athabasca</b>	<b>5.4</b>	<b>5.8</b>	<b>15.7</b>	<b>43</b>	<b>0</b>
LSD 05	1.6	1.6	3.1	18.9	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)

Jan 2022

## 2022 Seed Manitoba

Variety	Yield (% of CDC Amarillo)	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)	100	44	Long	M	230	VG	VG	F	G	G	F	F
CDC Canary	99	28	Early	L	230	VG	VG	F	F	F	G	F
CDC Lewochko	103	28	Mid	L	230	VG	VG	F	F	G	G	G
CDC Spectrum	96	28	Long	L	240	VG	VG	F	F	G	G	G
<b>CDC Athabasca</b>	<b>96</b>	<b>28</b>	<b>Long</b>	<b>L</b>	<b>300</b>	<b>VG</b>	<b>VG</b>	<b>F</b>	<b>G</b>	<b>G</b>	<b>F</b>	<b>F</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%

## 2022 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)	13	100	100	100	23.0	M	3.5	85	4.5	R	MR	F	F	G	230
CDC Canary	9	99	101	---	+0.1	E	3.5	85	4.5	R	I	G	F	F	230
CDC Lewochko	8	102	103	---	+0.9	M	3.5	90	4.5	R	I	G	G	G	230
CDC Spectrum	10	104	102	---	+0.7	M	3.5	85	4.5	R	I	G	G	F	240
<b>CDC Athabasca</b>	<b>7</b>	<b>93</b>	<b>97</b>	<b>---</b>	<b>+0.5</b>	<b>M</b>	<b>3.0</b>	<b>85</b>	<b>4.5</b>	<b>R</b>	<b>I</b>	<b>F</b>	<b>F</b>	<b>G</b>	<b>300</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%

## 2022 Alberta Seed Guide

Variety	Overall Yield	Overall 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>	Resistance to:				
			Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years	Yield (%)	Site Years					MB <sup>2</sup>	Fusarium Wilt	Seed Coat Breakage	Seed Coat Dimpling <sup>3</sup>	Green Seed Coat <sup>4</sup>
CDC Amarillo (C)	100	134	100	21	100	40	100	21	100	30	100	22	M	81	227	2.4	I	MR	F	F	G
CDC Canary	103	66	102	11	105	20	100	11	102	11	105	13	E	80	241	2.6	I	I	G	F	G
CDC Lewochko	102	52	104	8	100	16	103	9	103	8	105	11	M	89	233	1.6	I	I	G	G	G
CDC Spectrum	104	66	102	11	102	20	105	11	101	11	107	13	M	78	242	2.1	I	I	G	G	F
<b>CDC Athabasca</b>	<b>95</b>	<b>42</b>	<b>93</b>	<b>8</b>	<b>94</b>	<b>13</b>	<b>99</b>	<b>6</b>	<b>96</b>	<b>7</b>	<b>92</b>	<b>8</b>	<b>M</b>	<b>80</b>	<b>284</b>	<b>2</b>	<b>I</b>	<b>I</b>	<b>F</b>	<b>F</b>	<b>G</b>

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

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