

### EXTRA SMALL RED LENTIL: CDC IBC-978 CL<sup>®</sup>

CDC IBC-978 is an extra small red lentil Clearfield<sup>®</sup> variety. It was recommended for registration in 2017 and will be released to Saskatchewan Select Seed Growers in 2018.

CDC IBC-978 was tested for 3 years in the Lentil Registration Recommendation Trial in 2014 - 2016. In these trials, it yielded 110% of the best yielding Clearfield extra-small red lentil variety CDC Impala and 94% of the small red lentil check variety CDC Maxim (Table 1). In the 2015-2017 Regional Variety Trial, IBC-978 yielded 123% of CDC Impala (Table 2). The seed diameter of IBC-978 is similar to CDC Impala however it has greater seed thickness making IBC-978 more suitable for dehulling (Table 3). Compared to CDC Impala, IBC-978 matures 2 days earlier while other agronomic and disease resistance characteristics are similar (Tables 1, 2, 4). Application for PBR'91 protection for CDC IBC-978 has been submitted to CFIA.

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**Strengths:** Seed thickness slightly greater than that of CDC Impala  
Imidazolinone tolerance  
High yield compared to CDC Impala

**Neutral:** Similar agronomic and maturity characteristics compared to CDC Impala  
Similar disease resistance as CDC Impala



**Table 1: Agronomic performance summary of IBC-978 in the 2014-2016 Lentil Registration Recommendation Trial (RRT) in western Canada**

Market class	Line	[30] Yield			[20]	[17]	[15]	[17]	[18]
		kg/ha	% of Maxim	% of Impala	Days to flower	Days to mature	Lodging (1-5)	Plant height (cm)	Seed weight g/1000
SR	CDC Maxim	2133	100	117	55	94	1.7	38	41
ESR	CDC Impala	1823	85	100	58	95	1.9	37	30
ESR	<b>IBC-978</b>	<b>2011</b>	<b>94</b>	<b>110</b>	<b>56</b>	<b>93</b>	<b>2.1</b>	<b>38</b>	<b>31</b>

**Table 2: Agronomic performance summary of IBC-978 in the 2015-2017 Lentil Regional Variety Trial (RVT)**

Market class	Line	[29] Yield			[8]	[10]	[10]	[10]	[11]
		kg/ha	% of Maxim	% of Impala	Days to flower	Days to mature	Lodging (1-5)	Plant height (cm)	Seed weight g/1000
SR	CDC Maxim	2261	100	130	55	96	1.6	36	38
ESR	CDC Impala	1737	77	100	57	96	2.0	35	30
ESR	<b>IBC-978</b>	2135	94	123	56	94	2.4	36	30

**Table 3: Seed thickness distribution of IBC-978 in the 2014-2017 Lentil RRT in western Canada (6 sites)**

Market class	Line	Seed thickness distribution (% Seed over):							
		Round Hole							Slotted
		6.0 mm >15/64	5.6 mm >14/64	5.2 mm >13/64	4.8 mm >12/64	4.4 mm >11/64	4.0 mm >10/64	3.6 mm >9/64	2.6 mm >6.5/64
SR	CDC Maxim	0	3	19	48	23	6	2	43
ESR	CDC Impala	0	0	2	18	45	27	8	3
ESR	<b>IBC-978</b>	0	0	2	18	45	29	7	9

**Table 4: Three year indoor disease summary for IBC-978 in the 2014 – 2016 Lentil RRT in western Canada**

Market class	Line	2014		2015				2016		
		AB (%)	AN (0-5)	Ascochyta (%)		Anthracnose Race 1 (0-5)		AB (%)	Anthracnose (0-5)	
				Test 1	Test 2	Test 1	Test 2		Race 1	Race 0
SR	CDC Maxim	12.5	5.0	7.5	6.3	4.8	5.0	7.5	4.5	4.7
ESR	CDC Impala	19.4	2.1	13.1	10.6	1.2	1.5	18.1	0.9	4.4
ESR	<b>IBC-978</b>	16.7	2.4	16.3	14.8	1.1	2.5	9.8	1.3	4.8

AB = Ascochyta blight, AN = Anthracnose