

LARGE GREEN LENTIL: CDC IBC-937 CL[®]

CDC IBC-937 is a large green Clearfield[®] lentil variety. It was recommended for registration in 2016 and will be released to Select Seed Growers in 2018.

IBC-937 is a high-yielding large green imi-tolerant lentil. In the Lentil Registration Recommendation Trials, it yielded 114% of the Clearfield large green lentil variety CDC Improve in 2013 (Table 1) and 111% of the Clearfield large green lentil variety CDC Impower in 2014-2015 (Table 2). In the 2015-2017 Regional Variety Trials, IBC-937 yielded 117% of CDC Impower (Table 3); bringing it closer to the yield of the top yielding large green variety CDC Greenstar (non-CL). IBC-937 has similar disease resistance characteristics (Table 4) and agronomic traits as CDC Impower. It has a larger seed compared to CDC Impower which is also thicker; making IBC-937 more suitable for lentil dehulling (Table 5).

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- Strengths:**
- Seed thickness greater than that of CDC Improve and CDC Impower
 - High yield compared to CDC Improve and CDC Impower
 - Improved lodging resistance over CDC Improve and CDC Impower
 - Imidazolinone tolerance

- Neutral:**
- Similar agronomic and maturity characteristics compared to CDC Improve and CDC Impower
 - Similar disease resistance as CDC Improve and CDC Impower

- Weaknesses:**
- Slightly shorter than CDC Impower and CDC Improve; more similar to CDC Maxim



Table 1: Agronomic performance of IBC-937 in the 2013 Lentil Registration Recommendation Trial (RRT) in western Canada

Market class	Line	[8] Yield			[5] Days to flower	[3] Days to mature	[2] Lodging (1-5)	[4] Plant height (cm)	[6] Seed weight g/1000
		kg/ha	% of Maxim	% of Improve					
SR	CDC Maxim	2958	100	124	53	99	1.4	41	42
LG	CDC Improve	2379	80	100	54	99	2.6	44	73
LG	IBC-937	2709	92	114	51	100	2.1	42	73

Market Class: SR-small red; LG – large green; [] indicates number of sites

Table 2: Agronomic performance summary of IBC-937 in the 2014-2015 Lentil Registration Recommendation Trial (RRT) in western Canada

Market class	Line	[18] Yield			[11] Days to flower	[10] Days to mature	[9] Lodging (1-5)	[8] Plant height (cm)	[10] Seed weight g/1000
		kg/ha	% of Maxim	% of Impower					
SR	CDC Maxim	2031	100	119	55	97	1.8	38	40
LG	CDC Impower	1707	84	100	57	99	2.9	43	69
LG	IBC-937	1887	93	111	55	100	2.4	58	74

Market Class: SR-small red; LG – large green; [] indicates number of sites

Table 3: Agronomic performance summary of IBC-937 in the 2015-2017 Lentil Regional Variety Trial (RVT)

Market class	Line	[29] Yield			[8] Days to flower	[10] Days to mature	[10] Lodging (1-5)	[10] Plant height (cm)	[11] Seed weight g/1000
		kg/ha	% of Maxim	% of Impower					
SR	CDC Maxim	2261	100	145	55	96	1.6	36	38
LG	CDC Impower	1556	69	100	57	97	3.0	39	63
LG	IBC-937	1827	81	117	55	97	2.2	35	68

Table 4: Two year indoor disease summary for IBC-937 in the 2014-2015 Lentil RRT in western Canada

Mkt class	Line	2014		2015			
		AB (%)	AN (0-5)	Ascochyta (%)		Anthracnose Race 1 (0-5)	
				Test 1	Test 2	Test 1	Test 2
SR	CDC Maxim	13	5.0	7.5	6.3	4.8	5.0
LG	CDC Impower	34	4.9	27.5	22.5	4.8	4.8
LG	IBC-937	35	5.0	27.7	16.3	4.7	5.0

AB = Ascochyta blight, AN = Anthracnose

Table 5: Seed thickness distribution of IBC-937 in the 2014-2015 Lentil RRT in western Canada (4 sites)

Mkt class	Line	Seed thickness distribution (% Seed over):									
		Round Hole (mm)									Slotted
		6.8 >15/64	6.4 >14/64	6.0 >13/64	5.6 >12/64	5.2 >11/64	4.8 >10/64	4.4 >10/64	4.0 >9/64	3.6 >9/64	2.6 mm >6.5/64
SR	CDC Maxim	0	0	0	3.5	23	50.5	17.5	4	1	51
LG	CDC Impower	16	43	24	11	4	1	1	1	1	74
LG	IBC-937	14	40	29	11	3	1	1	1	0	88