

MEMORANDUM

TO: *Prairie Recommending Committee for Pulse and Special Crops*
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SUBJECT: Request for Support for Registration of Small Red Lentil Line CDC24.03

Lentil line CDC24.03 was tested for two years in the Lentil Registration Recommendation Trial (LRRT) in 2024-2025. Two year agronomic and disease performance data summaries in those trials are included in the accompanying Tables 1, 2, and 3. CDC24.03 is tolerant to imidazolinone herbicides. Table 1 (9 site years) indicates the yield of CDC24.03 was 106% of the small red market class check CDC Nimble. Cotyledon colour, flowering time, maturity, and plant height are similar to CDC Nimble. The seed coat of CDC24.03 is grey, similar to CDC Nimble. Seed thickness is slightly greater than that of CDC Nimble, providing efficiencies in dehulling and reducing mechanical damage during handling.

Strengths: Higher yield compared to CDC Nimble
Thicker seed similar to CDC Nimble making it more efficient in the dehulling process
Tolerant to imidazolinone herbicide

Neutral: Similar agronomic and maturity characteristics compared to CDC Nimble
Slightly better anthracnose and Ascochyta resistance characteristics compared to CDC Nimble

Weakness: None noticed during testing

Figure 1. Visual comparison of the seeds of CDC24.03 and CDC Nimble

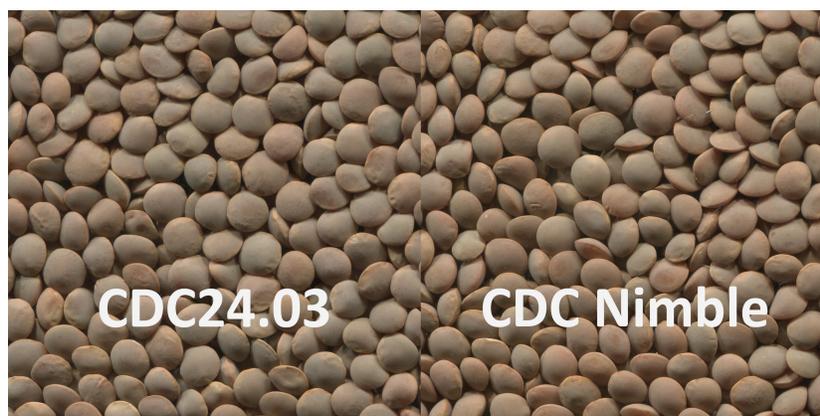


Table 1. Two year summary of agronomic performance for small red lentil CDC24.03 in the 2024-2025 Lentil RRT in western Canada

Market class	Line	Yield		Seed		Days to flower	Days to mature	*Lodging (1-5)	Plant height (cm)	% Seed over							slotted 2.6mm >6.5/64	
		kg/ha	% of Nimble	weight (g/1000)	Days to flower					Days to mature	Round Hole (64th inch)							
											6.0mm >15/64	5.6mm >14/64	5.2mm >13/64	4.8mm >12/64	4.4mm >11/64	4.0mm >10/64		3.6mm >9/64
SR	CDC Nimble	2221	100	34	55	91	2	42	0	0	4	29	42	20	5	14		
SR	CDC24.03	2351	106	37	56	92	1	45	0	1	11	42	33	11	3	19		
Mean		2286	103	36	56	92	1.5	44										

[] indicates number of sites
Market class: SR - small red;

Table 2. Ascochyta blight disease data for CDC24.03 in the 2024-2025 Lentil RRT in western Canada

Ascochyta blight (%) - small red (SR)						
Market Class	Line	2024 LCYT			2025 LCYT	
		Mean (%)	Significance*	Mean (%)	Significance*	
SR	CDC Nimble	14.4	CDEFGHIJKLMN	23.1	BCDEFHIJ	
SR	CDC24.03	6.3	N	19.4	BCDEFHIJKLM	
SG	Eston	53.8	A	46.3	A	
ESR	CDC Robin	12.9	FGHIJKL	6.9	LM	
LR	CDC KR-1	13.1	DEFGHIJKLMN	15.0	FHIJK	
SG	CDC Viceroy	16.9	DEFG	21.3	BCDEFHIN	
LG	CDC Greenstar	9.4	HIJKLM	10.0	JKLMN	
FG	CDC Marble	38.8	B	31.3	BG	
SB	CDC SB-2	21.7	CDEFG	9.6	K	
CV		82.6		50.8		

* Entries with a letter in common are not significantly different from each other.
Ascochyta blight disease testing carried out indoors
Market Class: SR-small red; SG-small green; ESR-extra small red; LR-large red; FG-french green; SB-spanish brown

Disease checks are shaded:
Eston - susceptible to ascochyta
CDC Robin - resistant to ascochyta
CDC KR-1 - resistant to ascochyta
CDC Viceroy - resistant to ascochyta
CDC Greenstar - resistant to ascochyta
CDC Marble - moderate resistance to ascochyta
CDC SB-2 - moderate resistance to ascochyta

Table 3. Anthracnose disease data for CDC24.03 in the 2024-2025 Lentil RRT in western Canada

Anthracnose (%) - small red (SR)					
Market Class	Line	2024 LCYT		2025 LCYT	
		Mean (%)	Significance*	Mean (%)	Significance*
SR	CDC Nimble	95.0	A	90.0	AB
SR	CDC24.03	93.8	AB	79.4	ABC
SG	Eston	95.0	A	93.8	A
ESR	CDC Robin	40.6	JK	8.1	F
LR	CDC KR-1	95.0	A	83.8	AB
SG	CDC Viceroy	49.4	IJK	10.0	F
LG	CDC Greenstar	95.0	A	81.9	AB
FG	CDC Marble	95.0	A	87.5	AB
SB	CDC SB-2	53.1	HIJ	20.6	F
CV		34.6		46.2	

* Entries with a letter in common are not significantly different from each other.
Anthracnose disease testing carried out indoors
Market Class: SR-small red; SG-small green; ESR-extra small red; LR-large red; FG-french green; SB-spanish brown

Disease checks are shaded:
Eston - susceptible to anthracnose race 1
CDC Robin - resistant to anthracnose race 1
CDC KR-1 - resistant to anthracnose race 1
CDC Viceroy - resistant to anthracnose race 1
CDC Greenstar - moderately susceptible to anthracnose race 1
CDC Marble - very susceptible to anthracnose race 1
CDC SB-2 - resistant to anthracnose race 1