# Technical Bulletin

Genes that fit your farm.



## **CDC** Bethune

Flax



### Strengths:

- Consistently high yield
- 110% higher yield than Norlin in Cooperative Registration Trials (1995 to 1997 Coop Trials)
- Very strong straw, similar to McDuff in lodging resistance
- 2 days earlier than McDuff,
- More resistant to fusarium wilt than Norlin or Flanders

#### **Neutral Traits:**

- 3 cm taller than Norlin and Flanders
- Medium seed size, slightly larger than Norlin, McDuff and Flanders
- 1 day earlier than Flanders, 1 ½ days later than Norlin

#### Weaknesses:

- Yield similar to Norlin, McDuff and Flanders under late seeding
- Matures 4 to 5 days later than Norlin under late seeding (but 2 days earlier maturing than McDuff under late seeding)

#### Breeder:

Dr. Gordon Rowland Crop Development Centre University of Saskatchewan Saskatoon, SK

1995 to 1997 Western Cooperative Flax Registration Trials

Entry	Yield (%) of Norlin	Maturity (days)	Lodging 1 = erect 9 = flat	Height (cm)	1000 Seed Wt (gm)	Oil Content (%)	lodine Number	Protein Content (%)
Flanders	100	102.1	4.0	61.8	5.4	45.4	191.3	35.3
McDuff	101	103.4	2.3	64.7	5.7	47.7	188.7	35.7
Norlin	96	99.8	3.8	62.4	5.8	43.4	188.9	35.2
CDC Normandy	102	99.4	3.8	61.8	5.7	43.4	189.5	35.1
CDC Bethune	106	101.3	2.5	65.1	5.9	45.6	187.6	35.7

All Certified seed of CDC Bethune originates from the re-constituted Breeder seed crop certificate: #110000041501 and can be traced to this lot from every generation of production. The Breeder seed was carefully screened, and tested at every stage of production to be free of Triffid.

In addition all seed lots of re-constituted CDC Bethune are produced in accordance with the additional certification requirements outlined by the breeder. These additional steps include:

- 1) Extended cropping history (five years out of flax in 2012, three years out of flax in 2013).
- 2) Equipment use restrictions (in the year of production only equipment handling pedigreed flax could be used).

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2015 Seed Manitoba Flax Comparison

		_	Maturity	Height	Seed	Oil	Resistance to:		
	Site	Yield	+/-	+/-	Size	Content		Fusarium	Powdery
Variety	Years	bu/acre	102 days	27 inches	TKW	(%)	Lodging	Wilt	Mildew
CDC Glas	12	35	1	1	5.2	45.8	G	MR	MR
CDC Sanctuary	23	34	3	1	5.8	45.6	G	MR	MR
CDC Sorrel	50	34	1	1	6.4	45.1	F	MR	MR
AC® Prairie Blue	68	34	1	-1	5.2	46.3	VG	MR	MR
AC® Prairie Grande	40	33	-2	-4	5.8	45.6	G	MR	MR
CDC Bethune	110	34	0	0	5.8	45.6	G	MR	MR

M=Medium; ME=Medium Early; ML=Medium Late; MR=Moderately Resistant; VG=Very Good; FG=Fair to Good; P=Poor

2015 Saskatchewan Varieties of Grain Flax Comparison

	Yield as % of CDC Bethune						Resistance to:			
Variety	Years Tested	Area 1 & 2	Area 3 & 4	Irrigation	Maturity	Seed Size	Lodging	Powdery Mildew	Fusarium Wilt	
CDC Glas	5	103	110	93	L	M	G	MR	MR	
CDC Sanctuary	7	103	101	96	L	М	F	MR	MR	
CDC Sorrel	8	100	101	92	L	L	G	MR	MR	
Hanley	4	90	90	93	М	М	G	MR	R	
AC® Prairie Blue	4	99	92	97	L	S	VG	MR	MR	
AC® Prairie Grande	6	92	94	92	М	М	VG	MR	MR	
CDC Bethune	10	100	100	100	L	M	G	MR	MR	

M=Medium; L=Late S=Small; M=Medium; L=Large G=Good; VG=Very Good; F=Fair; P=Poor

2015 Alberta Seed Guide Flax Comparison

			Yield Category (% CDC Bethune)				Agronomic Characteristics				
Variety	Overall Yield	Years Tested	Low <20 (bu/ac)	Medium 20-35 (bu/ac)	High 35-50 (bu/ac)	Very High >50 (bu/ac)	Maturity Rating	Seed Size	Height (cm)	Resistance to Lodging	
CDC Bethune (bu/ac)	36		15	29	45	59					
CDC Glas	106+	23	XX	XX	106	XX	L	М	61	G	
CDC Sanctuary	105+	28	XX	100	XX	108+	VL	М	64	G	
CDC Sorrel	104	32	112	104	100	99	L	L	61	G	
Hanley	97-	37	99	97	95	97	M	М	53	VG	
AC® Prairie Grande	98-	67	101	101	92-	99	М	М	55	VG	
CDC Bethune	100	123	100	100	100	100	L	M	58	VG	

M=Medium; L=Late S=Small; M=Medium; L=Large G=Good; VG=Very Good; F=Fair; P=Poor