

FLAX

Fields of flax have been successfully grown in our region for many years, however growing flax in the B.C. Peace River region is still at present a risky venture. Large acreage should be discouraged until further breeding programs have resulted in earlier maturing varieties. The B.C. Grain Producers Association is looking into the development of earlier varieties and, therefore, this information is being provided here.

Variety	Yield as % of NORLIN														Variety Descriptions		
	Dawson Creek					Fort St. John					B.C. Peace			Maturity Height (days to)		Height (cm)	Distributor
	2003 Yield	2001-2003				2003 Yield	2001-2003				2003	2001-2003					
bus / acre	% of Check	Avg. stn (%)	stn	yrns	bus / acre	% of Check	Avg. stn (%)	stn	yrns	Avg. (%)	Avg. (%)	stn	yrns	yrns	yrns		
■ CDC Bethune	28 a	108	116	[3]	24 cd	76	93	[3]	92	105	[6]	133	59			SeCan	
■ CDC Normandy	27 a	105	103	[3]	33 a	105	105	[3]	105	104	[6]	129	58			Western Growers	
■ ^ Linola® 2047	20 c	79	89	[2]	19 d	61	72	[2]	70	80	[4]	132	55			Agricore United	
□ ^Linola® 2090 *	24 ab	95	95	[1]	24 cd	77	77	[1]	86	86	[2]	131	53			Agricore United	
□ Macbeth	22 bc	86	93	[2]	27 abc	88	96	[2]	87	94	[4]	130	55			Agricore United	
NorLin	26 a	100	100	[3]	31 ab	100	100	[3]	100	100	[6]	129	57			SeCan	
■ Taurus	24 ab	95	99	[3]	25 bcd	80	90	[3]	87	95	[6]	135	58			Performance	
LSD (P=.05) =	3.52				6.41												
CV value (%) =	9.72				16.48												
Varieties not tested in 2003 (2001 - 2002)																	
■ AC Carnduff			101	[1]			99	[1]	(2001)	100	[2]	136	63				
■ CDC Mons *			112	[1]			98	[1]	(2002)	105	[2]	132	49			Quality Assured	
■ CDC Valour			98	[2]			107	[2]	(2002)	102	[4]	134	54			SeCan	
■ Hanley *			112	[1]			97	[1]	(2002)	105	[2]	126	52			SeCan	
■ Lightning			107	[2]			100	[2]	(2002)	104	[4]	137	59			Canterra	
■ ^Linola® 1084			105	[2]			95	[2]	(2002)	100	[4]	141	60			Agricore United	
□ Prairie Blue (FP 2024) *			111	[1]			90	[1]	(2002)	100	[2]	139	53			Morden AAFC	
Last Year Tested																	

Means followed by the same letter do not significantly differ (P=.05, LSD)

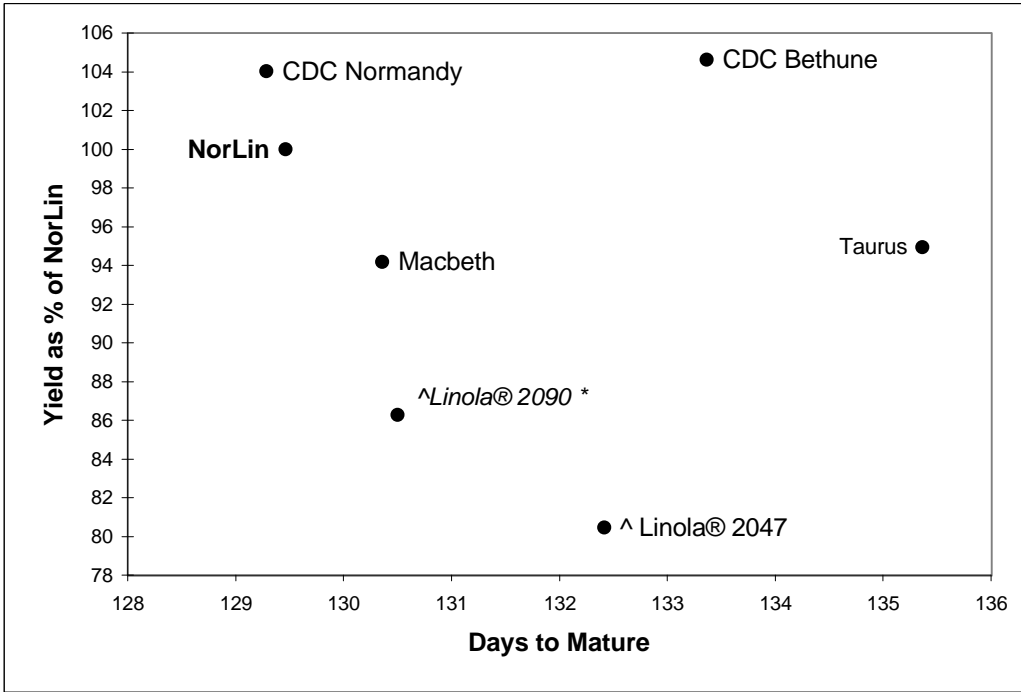
NorLin - check variety

- Protected by Plant Breeders' Rights
- Protection under Plant Breeders' Rights applied for

* first year tested, very limited data available
 ^ Solin type

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- FLAX**
- Regional Variety**
- Performance**
- 2001 - 2003**



Flax

Where to Place Flax in Crop Rotations:

Flax is quickly becoming a stubble-sown crop. However, with better weed control options now, conventional planting will work too, as long as it is a fairly clean field to start with. In fact, flax has now often been referred to as a "clean-up crop" in rotations.

Flax does well after cereals, but research has shown that in many parts of the prairies flax can do poorly after canola or mustard crops. This is due to toxic compounds in mature canola and mustard plants and their seedling residues. The problem is most evident where straw and trash from the previous canola crop has not been adequately spread on the soil surface. Canola straw should, therefore, be spread uniformly and spring volunteer seedlings should be controlled at an early stage in order to minimize possible toxic effects. Seeding into untilled canola stubble can also minimize the problem. Flax does do well after legume crops, but *Rhizoctonia* disease can become a problem. Wheat has shown to be the most acceptable crop to follow flax, but barley also performed well on flax stubble.

Environmental Stress and Disorders:

There are some environmental disorders that can affect your flax crop, which are associated with an imbalance of nutrient elements in the plant during environmental stress. Such disorders are often found in soils under high moisture conditions where leaf chlorosis (yellowing) may occur. Terminal bud dieback and the development of basal branching may or may not accompany the yellowing. As well, cankers on the stems can form, which are caused by very high or freezing temperatures when the crop is in early stages of growth. This latter situation may commonly be inconspicuous, but stands may be reduced by as much as 50%. Canker damage is usually most severe in thin stands on light soils, while leaf chlorosis is usually on heavier saturated soils. Placing seed and fertilizer properly, as well as picking varieties more tolerant to our Peace River spring conditions, will help prevent the situation. If either situation does occur, delaying herbicide applications during the recovery period is also very important, as herbicides will only compound the problem and delay maturity possibly beyond recoverable limits here in the Peace River region.

Fertilizer Placement:

Flax is very sensitive to seed-placed fertilizer with even low rates sometimes causing seedling injury. Some provinces recommend a low rate of phosphate (not more than 20 kg/ha (18 lb./ac.) of P₂O₅ - may be seed-placed), while others recommend that no fertilizer be placed with the seed. Considerable research evidence has shown that placement of phosphate 25 mm (1 inch) to the side and 25 mm (1 inch) below the seed is an effective method to supply phosphorus requirements of the flax plant. Nitrogen (N) should not be placed directly with the seed. These practices are followed by BC Grain Producers Association.

Adapted from *Growing Flax*, published in 2001 by the *Flax Council of Canada*, and *Alberta Agriculture Food and Rural Development "Roping the Net"* website. For most complete and up to date information on growing flax, visit the Flax Council of Canada's website at: www.flaxcouncil.ca.