



NuLin50



A yellow seeded flax/linseed with enhanced omega-3 (linolenic) levels beyond anything currently available. NuLin® also contains high levels of oil and protein content, as well as dietary fibre, phytochemicals (phenols), vitamins and minerals.

FEATURES

- NuLin provides enhanced omega-3 levels and decreased saturates
- NuLin provides consumers with one of the most powerful nutritional and disease preventing packages from plant sources for food uses
- For industrial applications, NuLin oil has the potential to enhance process efficiency and product quality
- NuLin meal or cake is a valuable protein and oil source for ruminants and horses
- NuLin oil provides an opportunity to enrich food products with increased omega-3 levels
- Whole seed NuLin for enhanced omega-3 levels in human food and animal feeds

Table 1. Fatty Acid Content (%) and Iodine Value – Regular Flax Compared with NuLin 50

	CDC Bethune₁ Regular Brown Flaxseed	NuLin 50₂ Yellow Seeded
C16:0 (Palmitic)	4.79	4.89
C18:0 (Stearic)	3.05	2.23
C18:1 (Oleic)	18.15	9.54
C18:2 (Omega-6)	16.09	12.75
C18:3 (Omega-3)	56.23	69.08
Total Saturates	8.23	7.46
Iodine Value	190	211

Data based on representative seed sample from six field test locations across the Canadian Prairies in 2009. All analyses conducted by POS Bio-Sciences of Saskatoon, Saskatchewan, Canada. Total saturates include myristic, palmitic, margaric, stearic, arachidic, behenic and lignoceric fatty acids.

¹ Data of check variety is CDC Bethune – Note that commercial flax would be a mix of many varieties.

² Data from high omega-3 variety, NuLin 50.



Table 2. Whole Seed Analysis of Regular Flax versus NuLin 50 (dry basis)

	CDC Bethune	NuLin 50
Oil	43.2%	44.7%
Protein	21.2%	22.9%
Total Dietary Fibre*	21.2%	19.9%
Total Phenols	174 mg/100 g	166 mg/100 g
Ash	2.77%	2.92%

*The ratio of soluble to insoluble fibre is approximately 30:70 (equivalent to 6.0 g soluble and 13.9 g insoluble fibre per 100 g whole seed NuLin 50. Data based on a representative seed sample from six field test locations across the Canadian Prairies in 2009. All analyses conducted by POS Bio-Sciences of Saskatoon, Saskatchewan, Canada.

UTILIZATION OF NULIN

Food Oil

- Expeller crush to produce high quality oil
- Food enrichment with omega-3 – margarine, yogurt, etc.

Whole Seed

- Broad based nutrition: oil, protein, soluble and insoluble fibre, phytochemicals (lignans, antioxidants), vitamins, minerals
- Bakery: toppings, multi-grain, ground into “flour”
- Pet food: valuable source of omega-3
- Chicken feeds: as a feed ingredient for production of omega-3 in eggs

Meal (3% residual oil) or Cake (8% residual oil)

- Livestock industry, mainly ruminant feeds: high protein, residual oil and energy
- Extraction of protein for high nutritional value protein isolates
- Extraction of lignans – natural source plant estrogen

Industrial Oil

- Linoleum floor coverings
- Polymerized oil producing variable viscosity for applications in printing inks, paints, chemicals
- Boiled oil for wood preservatives

PRODUCT SUPPLY (SEED)

- Fully identity preserved program to commercial co-operator and end use customer

PRODUCT INFORMATION

For more information on NuLin Flax contact Ryan McCann, Director Seed, 403-336-7225.

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