

Full Report (All Nutrients) 12220, Seeds, flaxseed [a](#) [b](#)

Report Date: July 20, 2019 05:48 EDT

Nutrient values and weights are for edible portion.

Food Group : Nut and Seed Products

Carbohydrate Factor: 4.07 Fat Factor: 8.37 Protein Factor:3.47 Nitrogen to Protein Conversion Factor:5.3

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 tbsp, whole 10.3g	1 cup, whole 168g	1 tbsp, ground 7g	1 tsp, whole 3.4g	1 tsp, ground 2.5g
Proximates									
Water 2 3	g	6.96	3	1.630	0.72	11.69	0.49	0.24	0.17
Energy	kcal	534	--	--	55	897	37	18	13
Energy	kJ	2234	--	--	230	3753	156	76	56
Protein 1 2 3	g	18.29	7	0.910	1.88	30.73	1.28	0.62	0.46
Total lipid (fat) 1 3	g	42.16	6	3.180	4.34	70.83	2.95	1.43	1.05
Ash 2 3	g	3.72	3	0.020	0.38	6.25	0.26	0.13	0.09
Carbohydrate, by difference	g	28.88	--	--	2.97	48.52	2.02	0.98	0.72
Fiber, total dietary 2 3	g	27.3	3	0.300	2.8	45.9	1.9	0.9	0.7
Sugars, total	g	1.55	--	--	0.16	2.60	0.11	0.05	0.04
Sucrose 2 3	g	1.15	3	0.310	0.12	1.93	0.08	0.04	0.03
Glucose (dextrose) 2 3	g	0.40	3	0.190	0.04	0.67	0.03	0.01	0.01
Fructose 2 3	g	0.00	3	0.000	0.00	0.00	0.00	0.00	0.00
Lactose 2 3	g	0.00	3	0.000	0.00	0.00	0.00	0.00	0.00
Maltose 2 3	g	0.00	3	0.000	0.00	0.00	0.00	0.00	0.00
Galactose	g	0.00	--	--	0.00	0.00	0.00	0.00	0.00
Minerals									
Calcium, Ca 1 2 3	mg	255	7	35.000	26	428	18	9	6
Iron, Fe 1 2 3	mg	5.73	7	0.550	0.59	9.63	0.40	0.19	0.14
Magnesium, Mg 1 2 3	mg	392	7	20.000	40	659	27	13	10
Phosphorus, P 2 3	mg	642	3	20.000	66	1079	45	22	16
Potassium, K 1 2 3	mg	813	7	9.000	84	1366	57	28	20

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Sodium, Na 1 2 3	mg	30	7	3.000	3	50	2	1	1
Zinc, Zn 1 2 3	mg	4.34	7	0.110	0.45	7.29	0.30	0.15	0.11
Copper, Cu 1 2 3	mg	1.220	7	0.075	0.126	2.050	0.085	0.041	0.030
Manganese, Mn 1 2 3	mg	2.482	7	0.186	0.256	4.170	0.174	0.084	0.062
Selenium, Se 3	µg	25.4	2	--	2.6	42.7	1.8	0.9	0.6
Vitamins									
Vitamin C, total ascorbic acid 2 3	mg	0.6	3	0.100	0.1	1.0	0.0	0.0	0.0
Thiamin 2 3	mg	1.644	3	1.111	0.169	2.762	0.115	0.056	0.041
Riboflavin 2 3	mg	0.161	3	0.071	0.017	0.270	0.011	0.005	0.004
Niacin 2 3	mg	3.080	3	0.130	0.317	5.174	0.216	0.105	0.077
Pantothenic acid 2 3	mg	0.985	3	0.415	0.101	1.655	0.069	0.033	0.025
Vitamin B-6 2 3	mg	0.473	3	0.138	0.049	0.795	0.033	0.016	0.012
Folate, total 2 3	µg	87	3	24.000	9	146	6	3	2
Folic acid	µg	0	--	--	0	0	0	0	0
Folate, food	µg	87	3	24.000	9	146	6	3	2
Folate, DFE	µg	87	--	--	9	146	6	3	2
Choline, total 3	mg	78.7	--	--	8.1	132.2	5.5	2.7	2.0
Betaine 3	mg	3.1	1	--	0.3	5.2	0.2	0.1	0.1
Vitamin B-12 2	µg	0.00	1	--	0.00	0.00	0.00	0.00	0.00
Vitamin B-12, added	µg	0.00	--	--	0.00	0.00	0.00	0.00	0.00
Vitamin A, RAE 2 3	µg	0	3	0.000	0	0	0	0	0
Retinol	µg	0	--	--	0	0	0	0	0
Carotene, beta 2 3	µg	0	3	0.000	0	0	0	0	0
Carotene, alpha 2 3	µg	0	3	0.000	0	0	0	0	0
Cryptoxanthin, beta 3	µg	0	2	--	0	0	0	0	0
Vitamin A, IU 2 3	IU	0	3	0.000	0	0	0	0	0
Lycopene 3	µg	0	2	--	0	0	0	0	0
Lutein + zeaxanthin 1	µg	651	9	52.000	67	1094	46	22	16
Vitamin E (alpha-tocopherol) 1 3	mg	0.31	6	0.006	0.03	0.52	0.02	0.01	0.01
Vitamin E, added	mg	0.00	--	--	0.00	0.00	0.00	0.00	0.00
Tocopherol, beta 3	mg	0.00	2	--	0.00	0.00	0.00	0.00	0.00
Tocopherol, gamma 1 3	mg	19.95	6	5.060	2.05	33.52	1.40	0.68	0.50

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Tocopherol, delta 1 3	mg	0.35	6	0.130	0.04	0.59	0.02	0.01	0.01
Tocotrienol, alpha 3	mg	0.00	2	--	0.00	0.00	0.00	0.00	0.00
Tocotrienol, beta 3	mg	0.00	2	--	0.00	0.00	0.00	0.00	0.00
Tocotrienol, gamma 3	mg	0.00	2	--	0.00	0.00	0.00	0.00	0.00
Tocotrienol, delta 3	mg	0.00	2	--	0.00	0.00	0.00	0.00	0.00
Vitamin D (D2 + D3)	µg	0.0	--	--	0.0	0.0	0.0	0.0	0.0
Vitamin D	IU	0	--	--	0	0	0	0	0
Vitamin K (phylloquinone) 3	µg	4.3	2	--	0.4	7.2	0.3	0.1	0.1
Lipids									
Fatty acids, total saturated	g	3.663	--	--	0.377	6.154	0.256	0.125	0.092
4:0	g	0.000	--	--	0.000	0.000	0.000	0.000	0.000
6:0	g	0.000	--	--	0.000	0.000	0.000	0.000	0.000
8:0 3	g	0.000	2	--	0.000	0.000	0.000	0.000	0.000
10:0 3	g	0.000	2	--	0.000	0.000	0.000	0.000	0.000
12:0 3	g	0.000	2	--	0.000	0.000	0.000	0.000	0.000
14:0 2 3	g	0.008	3	0.008	0.001	0.013	0.001	0.000	0.000
15:0 2	g	0.005	1	--	0.001	0.008	0.000	0.000	0.000
16:0 1 2 3	g	2.165	7	0.191	0.223	3.637	0.152	0.074	0.054
17:0 2	g	0.018	1	--	0.002	0.030	0.001	0.001	0.000
18:0 1 2 3	g	1.330	7	0.064	0.137	2.234	0.093	0.045	0.033
20:0 2 3	g	0.052	3	0.005	0.005	0.087	0.004	0.002	0.001
22:0 2 3	g	0.052	3	0.011	0.005	0.087	0.004	0.002	0.001
24:0 2 3	g	0.031	3	0.001	0.003	0.052	0.002	0.001	0.001
Fatty acids, total monounsaturated	g	7.527	--	--	0.775	12.645	0.527	0.256	0.188
16:1 undifferentiated 2 3	g	0.024	3	0.006	0.002	0.040	0.002	0.001	0.001
18:1 undifferentiated 1 2 3	g	7.359	7	0.132	0.758	12.363	0.515	0.250	0.184
20:1 2 3	g	0.067	3	0.016	0.007	0.113	0.005	0.002	0.002
22:1 undifferentiated 2 3	g	0.013	3	0.013	0.001	0.022	0.001	0.000	0.000
24:1 c 2 3	g	0.064	3	0.056	0.007	0.108	0.004	0.002	0.002
Fatty acids, total polyunsaturated	g	28.730	--	--	2.959	48.266	2.011	0.977	0.718
18:2 undifferentiated 1 2 3	g	5.903	7	0.341	0.608	9.917	0.413	0.201	0.148
18:3 undifferentiated 1 2 3	g	22.813	7	1.439	2.350	38.326	1.597	0.776	0.570

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18:4	g	0.000	--	--	0.000	0.000	0.000	0.000	0.000	
20:2 n-6 c,c 2 3	g	0.007	3	0.007	0.001	0.012	0.000	0.000	0.000	
20:4 undifferentiated	g	0.000	--	--	0.000	0.000	0.000	0.000	0.000	
20:5 n-3 (EPA)	g	0.000	--	--	0.000	0.000	0.000	0.000	0.000	
22:5 n-3 (DPA)	g	0.000	--	--	0.000	0.000	0.000	0.000	0.000	
22:6 n-3 (DHA)	g	0.000	--	--	0.000	0.000	0.000	0.000	0.000	
Cholesterol	mg	0	--	--	0	0	0	0	0	
Stigmasterol 3	mg	11	2	--	1	18	1	0	0	
Campesterol 3	mg	45	2	--	5	76	3	2	1	
Beta-sitosterol 3	mg	90	2	--	9	151	6	3	2	
Amino Acids										
Tryptophan 1 3	g	0.297	--	--	0.031	0.499	0.021	0.010	0.007	
Threonine 1 3	g	0.766	--	--	0.079	1.287	0.054	0.026	0.019	
Isoleucine 1 3	g	0.896	--	--	0.092	1.505	0.063	0.030	0.022	
Leucine 1 3	g	1.235	--	--	0.127	2.075	0.086	0.042	0.031	
Lysine 1 3	g	0.862	--	--	0.089	1.448	0.060	0.029	0.022	
Methionine 1 3	g	0.370	--	--	0.038	0.622	0.026	0.013	0.009	
Cystine 1 3	g	0.340	--	--	0.035	0.571	0.024	0.012	0.009	
Phenylalanine 1 3	g	0.957	--	--	0.099	1.608	0.067	0.033	0.024	
Tyrosine 1 3	g	0.493	--	--	0.051	0.828	0.035	0.017	0.012	
Valine 1 3	g	1.072	--	--	0.110	1.801	0.075	0.036	0.027	
Arginine 1 3	g	1.925	--	--	0.198	3.234	0.135	0.065	0.048	
Histidine 1 3	g	0.472	--	--	0.049	0.793	0.033	0.016	0.012	
Alanine 1 3	g	0.925	--	--	0.095	1.554	0.065	0.031	0.023	
Aspartic acid 1 3	g	2.046	--	--	0.211	3.437	0.143	0.070	0.051	
Glutamic acid 1 3	g	4.039	--	--	0.416	6.786	0.283	0.137	0.101	
Glycine 1 3	g	1.248	--	--	0.129	2.097	0.087	0.042	0.031	
Proline 1 3	g	0.806	--	--	0.083	1.354	0.056	0.027	0.020	
Serine 1 3	g	0.970	--	--	0.100	1.630	0.068	0.033	0.024	
Hydroxyproline 3	g	0.175	2	--	0.018	0.294	0.012	0.006	0.004	
Other										
Alcohol, ethyl	g	0.0	--	--	0.0	0.0	0.0	0.0	0.0	

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 tbsp, whole 10.3g	1 cup, whole 168g	1 tbsp, ground 7g	1 tsp, whole 3.4g	1 tsp, ground 2.5g
Caffeine	mg	0	--	--	0	0	0	0	0
Theobromine	mg	0	--	--	0	0	0	0	0

Flavonoids

Isoflavones

Daidzein 4 5	mg	0.01	4	0.02	0.00	0.02	0.00	0.00	0.00
Genistein 4 5	mg	0.04	4	0.07	0.00	0.07	0.00	0.00	0.00
Glycitein 4	mg	0.06	1	--	0.01	0.10	0.00	0.00	0.00
Total isoflavones 4 5	mg	0.07	4	0.13	0.01	0.12	0.00	0.00	0.00
Biochanin A	mg	0.00	3	0	0.00	0.00	0.00	0.00	0.00
Formononetin	mg	0.01	4	0.02	0.00	0.02	0.00	0.00	0.00
Coumestrol	mg	0.02	4	0.03	0.00	0.03	0.00	0.00	0.00

Sources of Data

¹J.K. Daun, R. Przybylski **Environmental effects on the composition of four Canadian flax cultivars**, 2000 Proceedings of the 58th Meeting of the Flax Institute of the United States pp.80-91

²Flax Council of Canada **Nutrient Analysis of Flaxseed by Medallion Lab**, 1997 Winnipeg

³Nutrient Data Laboratory, ARS, **USDA National Food and Nutrient Analysis Program Wave 7h**, 2003 Beltsville MD

⁴Thompson, L. U., Boucher, B. A., Liu, Z., Cotterchio, M., and Kreiger, N. **Phytoestrogen content of foods consumed in Canada, including isoflavones, lignans, and coumestan.**, 2006 Nutr. Cancer 54 pp.184-201

⁵Mazur, W., Fotsis, T., Whl, K., Ojala, S., Salakka, A. and Adlercreutz, H. **Isotope dilution gas chromatographic-mass spectrometric method for the determination of isoflavonoids, coumestrol, and lignans in food samples.**, 1996 Anal. Biochem. 233 pp.169-180

Footnotes

^a Up to 12 percent flax seed can safely be used as an ingredient in food.

^b Other phytosterols = 49.0 mg/100g; these include delta 5-avenasterol (21.2), campestanol (2.8), brassicasterol (1.1) and other minor phytosterols (23.9 mg).

Langual Code(s)

- A0305 SEED OR SEED PRODUCT (US CFR)
- A1282 1200 NUT AND SEED PRODUCTS (USDA SR)
- B1700 FLAX
- C0155 SEED
- E0151 SOLID
- F0001 EXTENT OF HEAT TREATMENT NOT KNOWN
- G0003 COOKING METHOD NOT APPLICABLE
- H0001 TREATMENT APPLIED NOT KNOWN
- J0001 PRESERVATION METHOD NOT KNOWN
- K0001 PACKING MEDIUM NOT KNOWN
- M0001 CONTAINER OR WRAPPING NOT KNOWN
- N0001 FOOD CONTACT SURFACE NOT KNOWN
- P0024 HUMAN FOOD, NO AGE SPECIFICATION
- R0001 GEOGRAPHIC PLACE OR REGION NOT KNOWN