



SALBA™ VS FLAX

The limitations of flax begins with its strong dominating flavor. It has a much rougher texture as a whole seed and it will always be noticed. Salba™ has no flavor to speak of and, in fact, it will take on the flavors of whatever it is mixed with. In many products it will go unnoticed.

Flax, as a fat replacer, only absorbs approx. 6 times its weight in water and is ineffective as a fat replacer. Salba™ can absorb more than 14 times its weight in water and it has been found to be one of the best fat replacer that exists. The hydrophilic structure of Salba™ lends itself to limitless applications for recipe development and it has no flavor concerns as it has no flavor.

Flax is very limited in recipe development. If someone eats flax it is because he has learned it is rich in the omega-3. People do not look for flax to eat because of its great taste and texture.

Salba™ has a similar profile of the EFA's (essential fatty acids), so it would attract the same interested consumer with additional interest for; fat replacer, calorie displacer, energy, endurance, hydration (electrolyte balance), digestive aid, calorie displacer, blood sugar regulator, food extender, all with no concern for invasive or corruptive flavor.

Salba™ seed, hydrated, will support prolonged hydration within the cells and extend electrolyte balance.

Salba™ will revolutionize the food industry and, in addition, this incredible ovule of nutrition is the most important food known to man.

The structural integrity of Salba™ should be the focus beyond the nutritional profile.

Scientific Evidence

1) The restriction to human consumption of flax oil is due to the presence of toxic cyanoglycosides (Lanamarin) and Vitamin B antagonistic factors. (Center for alternative plant and animal products. 1995. Flaxseed oil contains lignans, which could prevent blood clot formation and aid in brain development. BioOptions, University of Minnesota, 7

(1): 7 p.; Stitt, P.A. 1988. Flax as a source of alfa linolenic acid. In: Dietary Omega-3 and Omega-6 Fatty Acids, edited by C. Galli and A.P. Simopoulos. Plenum press & NATO scientific affairs division, 171: 389-390 pp.). **Flax human consumption is forbidden in France** (Le Consail d'Etat. 1973. Interdiction de l'huile de lin. Journal Officiel, 1523-156 pp.) **And is used with restrictions in Germany, Switzerland and Belgium** (Hunter, J.E. 1988. Omega-3 fatty acids from vegetable oil. In: Dietary Omega-3 and Omega-6 Fatty Acids, edited by C. Galli and A.P. Simopoulos. NATO ASI Series, 171: 33-41 pp.; Olivier, J.F. 1996. La vida natural: Materias grasas – Lípidos. Aceites y grasas, 6 (22): 45-55 pp.). As you know, in the USA flaxseed is not forbidden for human consumption, but the FDA has never approved it.

2) Flax seeds are one of 2, 500 plants, such as cassava and lima beans, which contains cyanogenic glucosides. These are natural compounds that can lead to the build up of poison in the body. Generally, this toxicity is more common in poor, under-, or malnourished populations – populations, for example, who rely heavily on a plant like cassava as the main staple of their diets.

A Flax Council study shows no evidence that flax seed consumption contributes to either acute or chronic cyanide toxicity. Nonetheless, vegans who eat flax seed can be more at risk for toxicity because of their altered diets.

- Flax Council; Canada

3) Flax contains phytoestrogens which have been shown to induce both estrogenic and anti-estrogenic effects but their biological relevance and potency have not been well characterized. Safe and efficacious levels have yet to be established.

- J Pediatr Endocrinol Metab 2002 May;15(5):561-72 -- Phytoestrogens: a review of recent findings. -- Stark A, Madar Z.

4) Components in flaxseed with potential hormone-like effects can be transferred to nursing offspring via mother's milk. Previous investigations demonstrated that maternal feeding of a 10% flaxseed diet during pregnancy and lactation resulted in estrogenic effects on reproductive indices among male and female offspring. Although maternal feeding of flaxseed during lactation appears to be safe with respect to reproductive indices among offspring, future



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investigation is required to elucidate whether there are any long-term implications with respect to fertility.

- J Toxicol Environ Health A 2001 Dec 7;64(7):567-77 -- Exposure to flaxseed or its purified lignan during suckling only or continuously does not alter reproductive indices in male and female offspring. -- Ward WE, Chen J, Thompson LU.

5) Flaxseeds and flaxseed oil can spoil if they are not kept refrigerated. Some possible side effects include diarrhea, gas, and nausea. Flaxseed oil should not be used with other laxatives or stool softeners. People who have inflammatory disease of the intestine, esophagus, or stomach should avoid flaxseed. The immature pods of flaxseed are poisonous.- American Cancer Society

6) Anaphylaxis caused by linseed (flaxseed) intake. --
Alonso L, et al. -- J Allergy Clin Immunol. 1996 Aug;98(2):469-70

7) Recently there has been a moderate resurgence in the use of flax seed in a variety of ways including bread. The scientific basis of its use is very limited. There is some claim for beneficial effects in cancer and lupus nephritis. These claims could be due to its ability to scavenge oxygen radicals. However, its antioxidant activity is not known.

- Saeidi, G., Rowland, G.G. 1999October. Seed colour and linolenic acid effects on agronomic traits in flax. Can j plant sci. 79 (4): 521-526.

- Sharma, H.S.S., Faughey, G.J. 1999October. Comparison of subjective and objective methods to assess flax straw cultivars and fibre quality after dew retting. Ann appl biol. 135 (2): 495-501.