

1% Linolenic Soybean Oil

A Soybean Solution to Trans Fat

Health Benefits

About trans fats . . .

The U.S. Food and Drug Administration will require food manufacturers to list the content of trans fatty acids, also called trans fats, on Nutrition Facts labels beginning in 2006. Trans fats are formed when liquid vegetable oils are hydrogenated, a chemical process used to extend the freshness of food products and the useful life of frying oils. Trans fats raise LDL (bad) cholesterol levels in the blood and lower HDL (good) cholesterol.

About saturated fats. . .

Saturated fats are undesirable for heart health. Health experts recommend using oils that have no more than 2 grams of saturated fat per serving. Unhydrogenated soybean oil meets this guideline, but some other unhydrogenated oils do not.

1% linolenic soybean oil – the healthy alternative. . .

To eliminate trans fats from their products, the food industry is searching for alternatives to hydrogenated oils. One of these alternatives is 1% linolenic soybean oil. This oil contains no trans fats and is lower in saturated fat (only 2 grams per serving) than hydrogenated soybean oil. The total grams of undesirable saturated fat and trans fat in the hydrogenated soybean oil is 2.5 times greater than in 1% linolenic soybean oil. Some of the alternative unhydrogenated oils are more than 3.5 times higher in saturated fat than the 1% linolenic oil.

1% Linolenic Soybean Oil
No trans fat
Lower in saturated fat

Nutrition Facts	
Serving Size 1 Tbsp (14g) Servings Per Container 96	
Amount Per Serving	
Calories 120	Calories from Fat 120
% Daily Value*	
Total Fat 14g	22%
Saturated Fat 2g	10%
Trans Fat 0g	
Polyunsaturated Fat 9g	
Monounsaturated Fat 3g	

Hydrogenated Soybean Oil
Contains trans fat
Higher in saturated fat

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Farm Production

Market demand . . .

In 2004, farmers planted for seed about 30,000 acres of 1% linolenic varieties developed by researchers at Iowa State University. More than a million acres of 1% linolenic soybeans will be needed in 2005 to meet the anticipated demand for the oil.

Identity preservation. . .

The 1% linolenic soybeans must be kept separate from commodity soybeans to retain their value. For identity preservation, 1% linolenic soybeans must be:

- planted in fields where commodity soybeans were not grown the previous year
- planted, harvested, and transported with equipment that has been thoroughly cleaned
- stored separately from commodity soybeans

Premiums for production. . .

Farmers will be paid a premium for the extra time and other expenses associated with identity preservation, extra herbicide costs associated with the production of the non-GMO varieties, and any difference in yield between 1% linolenic and commodity soybeans. Every 10 cents per bushel of premium paid to the farmer adds 1 cent to the cost of a pound of oil because each bushel of soybeans contains about 10 pounds of oil.

How to get involved. . .

Production of grain and seed of 1% linolenic soybeans in 2005 will be done primarily on a contract basis. An up-to-date list of companies offering contracts is available on the Web site at www.notrans.iastate.edu. The Web site also contains current agronomic information on the 1% linolenic varieties that will be available for production.

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11/04

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914 in cooperation with the U.S. Department of Agriculture. Stanley R. Johnson, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.

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