

## Cottonseed Oil Use

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Oklahoma City, Ok.--Although cotton is known as a basic source of cloth used for wearing apparel, its byproducts are becoming more important to consumers all the time.

A good example is cottonseed oil. Extracted from cottonseed, the oil has been part of the American diet for well over a century. Before 1940, it was the major vegetable oil available in the U. S. Developments in soybean and corn oils now place cottonseed oil in third place in volume used in the U. S. Currently, annual U. S. cottonseed oil production averages over one billion pounds.

Today, food scientists and dieticians are once more looking at cottonseed oil as a major contributor toward preparing healthful, tasty food, according to the National Cottonseed Products Assn.

Refined and deodorized, it is one of the purest food products available. It is one of the few food products that can be highly cleaned and refined and still maintain outstanding nutritional quality. In prepared food, cottonseed oil is a favorite staple for salad oil, mayonnaise, salad dressing and similar products because of its favor stability.

As a cooking oil, it is used for frying in both commercial and home cooking. In shortening and margarine, it is ideal for baked food and cake icings. In the U. S., cottonseed oil is used primarily as a salad or cooking oil. About 56 percent of it is used for that purpose; 36 percent is used for baking and frying fats and the remainder for margarine and other uses.

It has a mild, nut like taste and is generally clear with a light golden color, but the amount of color depends on the amount of refining. Clear, colorless oils are not necessarily better oils. They may have had more severe refining.

Cottonseed oil is among the most unsaturated oils like safflower, corn, soybean, canola and sunflower oils. It has a 2:1 ratio of polyunsaturated fatty acids. Its fatty acid profile generally consists of 70 percent unsaturated fatty acids, including 18 percent monounsaturated (oleic) and 52 percent polyunsaturated (linoleic) and 26 percent saturated fatty acids (primarily palmitic and stearic).

It is rich in tocopherols, naturally-occurring antioxidants with varying degrees of vitamin E activity. This contributes to its stability in products needing long shelf life.

Described by scientists as being "naturally hydrogenated" because of its levels of different fatty acids it possesses, cottonseed oil makes a stable frying oil without the need for additional processing or formation of trans fatty acids.

It does not have to be as fully hydrogenated for many purposes as some of the more polyunsaturated oils. When it is partially hydrogenated, its monounsaturated fatty acids actually increase.

When hydrogenated to a typical Iodine Value of about 80, its fatty acid profile shifts to 50 percent monounsaturated, 21 percent polyunsaturated and 29 percent unsaturated; placing it well within current diet and health guidelines.

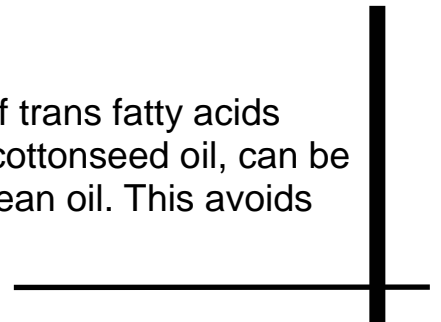
It has a light, non-oily consistency and high smoke point that makes it a favorite for stir fry, oriental dishes and for fish frying. It does not deteriorate or "revert" rapidly in flavor when used at high temperatures.

Oklahoma City, Ok.--Cottonseed oil as a vegetable cooking oil is stirring up interest by food manufacturers now that the Food and Drug Administration is proposing rules on labeling the trans fatty acid levels of these oils.

Cottonseed oil is a good choice where non hydrogenated oil with good stability is needed, according to the National Cottonseed Products Assn.

Even though there is debate over the average consumption of trans fatty acids, estimates range from 7.6 to 15.2 grams per person per day in the U.S., there can be no argument that there are many foods that have high levels of trans fatty acids. If the scientific community cannot agree on the quantity of trans fatty acids being consumed, there is an even greater debate about whether these compounds pose potential health risks. Researchers have linked trans fatty acids to everything from heart disease to low birth weights. Other researchers claim the research data does not support such claims.

Whatever the result of the research findings, the numbers of trans fatty acids can be reduced in food products. A naturally stable oil, like cottonseed oil, can be used instead of hydrogenating a less saturated oil like soybean oil. This avoids the formation of trans fatty acids.



If hydrogenation is needed to achieve a needed function, hydrogenating a naturally saturated oil will produce fewer trans fatty acids. And, if a vegetable oil is hydrogenated to total saturation (less than 3.0 IV), there are no trans fatty acids left. Some food manufacturers use fully hydrogenated cottonseed oil blended with a high unsaturated oil to get a blend with near zero trans fatty acids.