

Turning Margarine into a Healthier Choice of Fat



These days, consumers are more interested in healthy eating and is shifting towards functional foodstuffs that are associated with health functions such as prevention of diseases along with its nutritional effects¹⁰. Choices relating to fat intake does have major impacts on public health. The inappropriate energy balance has a high chance of leading this to weight gain or loss, while choices relating to the type of fat consumed can increase the risk of cardiovascular diseases (CVDs)¹¹.

Many attempts have been made by the oil and fat industries to reformulate and improve the nutritional quality of margarine by integrating functional ingredients that consumers are keen to see on the labels.

Chia Oil, the Power House of Omega Fatty Acids (FA)

Chia seeds produces about 35-40% good quality edible oil and possesses the highest concentration of omega-3 FA of all the available food sources⁶. Scientific evidences have

shown that omega-3 FA have cardiac-protective, anti-inflammatory and hypotensive effects⁷. A study has demonstrated additional usage of chia oil to a base margarine blend of palm oil, palm kernel oil and butter significantly increased omega-3 FA content, including docosahexanoic acid (DHA). The challenging part when improving the functional value of margarine is to maintain the product stability which prevents development of rancid flavours, odours and toxic oxidation products. The results from the mentioned study appears promising in achieving this goal. The phenolic compounds of chia oil could enhance the oxidative stability of margarine without any addition of antioxidants⁸.

Inulin, The Fat Replacer

Recent market research reported that the global margarine market will be driven by consumer demand for food products that are highly nutritious yet low in fat and calorie⁵. In this quest, fat in the margarine can be replaced with inulin and can mimic the techno-functional properties of fat and possess low caloric value. The long chain inulin fractions are slightly soluble and relatively viscous when it combines with water hence creamy fat-like texture can be simulated^{1,12}.

Vitamin Fortification, Optimising Food's Goodness

Margarine is a convenient vehicle for the additional fat-soluble vitamins. There is over 40 countries mandate the fortification of edible oils and margarine with vitamin A and/or vitamin D^{3,9}. Vitamin A is crucial for maintaining vision, promoting growth and development, and protecting epithelium and mucus integrity in the body⁴. Deficiency of vitamin D affects the processes involved in the growth and metabolism of bone leading to osteomalacia in adults and rickets in children².

Last but not least,

In the last few decades, the food industry has made fundamental changes to the way fats and oils are produced by means to provide “healthier” options to consumers with respect to fat choice. Currently, most margarine products offer better fat profiles which improve the consumers’ diet in terms of quality of fat and consequently overall health status. At DPO, we are honoured to be partners with **Benexia, Beneo Orafiti and Hexagon** to bring you a wide range of ingredients choices that will elevate the quality of your oil and fat products.

References

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