

Trans-Free Palm Fruit Oil Enhances Health

Fat supplies various nutrients and functional properties, making it an important food component. Some fats, however, contain *trans* fatty acids, which are linked to an increased risk of cardiovascular disease and cancer. For a healthful addition to the human diet, the American Palm Oil Council recommends naturally *trans*-free palm fruit oil, a semisolid, nonhydrogenated fat that supplies nutritional benefits along with the functionality of partially hydrogenated shortenings.

Extracted from the fruit of the oil palm tree, palm fruit oil consists of about 50% saturated fat and 50% unsaturated fat. This product differs from palm kernel oil, which is found in the fruit's seed and has a higher saturated-fat content. Palm fruit oil is rich in antioxidants, including beta-carotene, a precursor of vitamin A, and tocopherols and tocotrienols, vitamin E

components. "No other major oil contains tocotrienols, which studies have shown reduce serum cholesterol, inhibit some cancers and prevent skin damage," states Salleh Kassim, executive director. Cholesterol- and *trans*-free, palm fruit oil has been shown to increase "good" high-density lipoprotein (HDL) cholesterol and promote cardiovascular health.

Trans-fatty acids are typically formed when liquid oil is hydrogenated to increase functionality and extend shelf life. Palm fruit oil, a semisolid at room temperature (22% to 25% solids content at 20°C and a 37°C melting point) with a high antioxidant content, does not require hydrogenation to enhance performance. Maximum use of palm fruit oil is achieved with modification processes like fractionation and interesterification. For instance, palm olein is a liquid fraction widely

used as a stable frying oil, while palm stearin is a solid product useful in shortening formulations.

Odorless and bland-tasting, palm fruit-oil products benefit a wide range of applications. As a bakery shortening or table margarine, palm fruit oil contributes fat crystals in the stable beta-prime form, which is responsible for a smooth texture and optimum mixing and creaming ability. "In baked goods, palm fruit shortening performs equal to if not better than domestic shortenings made from hydrogenated oils, plus the flavor profile is superior," says Kassim. Interesterifying palm olein produces a cocoa-butter substitute with the snap, crunch and melt-in-the-mouth sensation of chocolate. As a frying medium, palm fruit-oil products resist oxidation and the formation of breakdown compounds at frying temperatures, while also extending end-product shelf life. Other uses include butterfat replacement in imitation dairy products, butter-cream fillings for cookies, butterfat blends for buttery-tasting baked goods, coffee whiteners or creamers, ice cream, and cheese substitutes. ■



American Palm Oil Council
 21515 Hawthorne Blvd., Suite 690
 Torrance, CA 90503
 Phone: 310/944-3910
 Fax: 310/944-3544
 Website:
www.americanpalmoil.com
 E-mail:
kassim@americanpalmoil.com