



EFFICIENCY OF SPICE EXTRACTS IN SOYBEAN OIL STABILITY DURING HEATING

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ABSTRACT

The aim of the present study was to evaluate the efficiency of spice extracts in soybean oil stability regarding oxidative deterioration during heating. The treatments i) soybean oil (Control), ii) soybean oil with thyme extract (TE), iii) soybean oil with basil and thyme extracts (Mixture 1), iv) soybean oil with oregano and thyme extracts (Mixture 2), and v) soybean oil with tert-butyl-hydroquinone (TBHQ) were subjected to 180 °C for 30 h; the samples were taken at the times 0, 5, 10, 15, 20, 25, and 30 h and analyzed as to peroxide value, conjugated dienoic acids, oxidative stability, total polar compounds, fatty acid and triacylglycerol composition. The spice extracts improved soybean oil resistance against thermal deterioration and, therefore, they may be recommended as sources of powerful antioxidant for stabilization of unsaturated vegetable oils.
