

Changes in Olive Olive Oil Characteristics of two Common Turkish Varieties during Maturation

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Changes in olive properties and oil quality, oxidative stability, phenolic and chemical composition of two common Turkish varieties (Memecik and Edremit) during maturation were investigated. Olive samples were collected at their own growing region for five different harvest dates and processed to oil with a laboratory scale mill. Metabolic behaviors of these two varieties along with the maturation were different in terms of water, oil, oleuropein content of olives and oleic acid, triolein, β -sitosterol, Δ -5-avenasterol content of olive oils. During maturation, total phenol and *trans* cinnamic acid contents of both olive fruits decreased whereas cyanidin 3-O-glucoside and cyanidin 3-O-rutinoside anthocyanins increased. For olive oils, peroxide value, K_{232} , pigment concentration, β -tocopherol, stearic and linolenic acid, palmitodiolein (OOP) ratios decreased while K_{270} , linoleic acid, dioleolinolein (OOL) and palmitooleolinolein (PLO) percentages increased with the maturation. A clear discrimination was observed with principal component analysis (PCA).

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