

Determination of Aroma Compounds and Some Quality Parameters of Virgin Olive Oils from Aegean Region in Turkey

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The olive fruits from economically important olive cultivars (Ayvalık, Gemlik, Memecik, Domat and Uslu) of Aegean area were harvested during two harvest year (2007-2008 and 2008-2009) and processed to oil under the same processing conditions. Free fatty acid, peroxide value, specific absorptions in UV region, refractive index and fatty acid composition of oil samples were determined. Also, total phenol contents, phenolic compound composition and volatile aroma compounds of oils were investigated.

Free fatty acid, peroxide value, specific absorptions in UV region, refractive index and fatty acid composition of oil samples were match with values which declared by Turkish Food Codex.

Oleuropein, hydroxytyrosol and 4-hydroxyphenylacetic acid were found as the main phenolic compounds in oil samples and their amount changed according to harvest years, olive cultivar and location. These compounds occurring during lipoxygenase pathway indicate higher quality level for virgin olive oil.