

Standardization Parameters of Extra Virgin Olive Oil - Taste and Chemical Patterns**Authors:** Ahmet Ceyhan Goren^{1,2}**Affiliation:** ¹Gebze Technical University, Graduate School, 41400, Gebze, Kocaeli, Türkiye, ²Troyasil HPLC Column Technologies, Doruk Analitik, Mehmet Akif Mah. Yumurcak Sok. No:43, Ümraniye İstanbul, Türkiye
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Today, interest in the Mediterranean diet is increasing day by day among all societies in the world. The basic element of the Mediterranean diet can simply be defined as a nutritional plate consisting of naturally grown vegetables and fish-based foods. The most important and indispensable element of this diet is olive oil 1-2. Olive oil is a highly nutritious oil obtained by squeezing the fruits of the Olive *europaea* tree. Olive oil is not only valuable for nutritional purposes but also in the pharmaceutical and cosmetic industries due to its rich phenolic compounds and protective properties since ancient times³. However, olive oil production is extremely sensitive to climate change. Olive trees must cope with climate conditions in two basic ways. These are the danger of frost encountered in winter, and the heavy spring rains that fall during the day in hot weather during the flowering period. The first causes the trees to freeze, while the second causes yield losses due to the scalding of the flowers due to the sun that blooms after the rain. For this reason, the product of this wonderful tree that Nature has given us cannot meet the increasing demands from time to time. Unfortunately, to meet the excessive demand, greedy traders mix this product with cottonseed oil and hazelnut oil due to its high oleic acid content. It has gone so far that some new hybrid sunflower oils are also used for adulteration because they contain high oleic acid. In this respect, the quality and standardization of the olive oil used by the consumer is very important. Especially extra virgin olive oil products are extremely valuable in terms of nutritional value and phenolic components since they reach the end user without being processed. In this study, approaches, analysis results and case studies related to the standardization of olive oil for taste and chemical patterns are discussed in the European Pharmacopoeia, the Turkish Food Codex and local people.

Keywords: Olive oil; Mediterranean diet; olive oil; standardization.