

Abstract

Olive Tree (*Olea europaea* L.), due to high adaptability to wide range of different types of soils, and relatively high resistance to drought and salinity, even in certain topographical conditions that not suitable for the cultivation of other oilseeds, has a good yield. These characteristics have led to the consideration of olive as a strategic product in different regions of Iran, like Sistan. In this study, eight foreign and Iranian olive cultivars including Fishmi, Mari, Kronaki, Roodbar, Zard, Roghani, Manzalia and Dezfuli, were investigated for quantitative and qualitative characteristics in Sistan. Quantitative traits evaluated including fruit length, fruit diameter, fruit thickness, fruit weight, core length, core diameter, core thickness, core weight, leaf length and width, and qualitative traits including fruit symmetry, fruit tip shape, apical shape, lentil, density of the lance, presence of the pacifier, shape of the fruit, nucleus symmetry, shape of the nucleus. Also, the quality indices of olive oil and fatty acid composition were studied. Oil extraction was performed using n-hexane (cold dissolution) and centrifuge method, and then the percentage of fatty acids and their levels were measured by the GC machine. The data were analyzed Based on randomized complete block design with 3 replications and using SAS ver 9.1 software. The results showed that there was a significant difference between morphological traits and oil content between cultivars and Roghani cultivar is more suitable for cultivation in Sistan.

Key words: *Olea europaea* L., Oil quality, Yield, Morphological traits



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**Comparison of some cultivars of olives cultivated in Sistan region based
On morphological characteristics and quantity and quality of oil**

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