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Physicochemical characterization of olive oil from Aljouf area of Saudi Arabia

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Abstract: The aim of this study is to characterize the extra virgin olive oil obtained from the most abundant olive cultivar grown in Aljouf area of the northern part of Saudi Arabia which is Sorani. Twenty samples were collected from each orchards in Sakaka, Dumat Aljendal, and Qurriyat during two seasons (2015 and 2016) and were examined for the main International Olive Council chemical quality parameters (acidity, peroxide value, and UV absorption (K232 and K270)). In addition, the fatty acid profile of olive oil samples was also analyzed, including the more commonly present fatty acids (oleic, palmitic, linoleic, stearic, linolenic and palmitoleic acids) together with the total polyphenolic content (from 157 to 287 mg /kg), the iodine value and the refractive index. The acidity of the samples analyzed were (0.64-0.88), peroxide value were (5.5-10.1) and iodine value were (76.8-91.7). The variation of the obtained results may be attributed to the different geographical and climatic reasons as well as other conditions such as the production process, harvesting, storage and extraction method.

Key words : Olive oil, physical and chemical properties, Aljouf, Saudi Arabia.

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