

Chemical composition of *Nabali* Jordanian olive oil

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This study covers the chemical and physical properties of the Jordanian *Nabali* virgin olive oil either commercially pressed ($n = 6$) or experimentally pressed ($n = 6$) of the harvesting season 2014 from three Jordanian olive production areas (Middle, North and South). *Nabali* olive fruit, the most popular olive variety in Jordan, could be considered of medium fruit size. No clear effect for the production area on the fruit diameter was observed, whereas, the fruit length was affected and olive fruits harvested from the North area were characterized with a significant ($p \leq 0.05$) larger length. The obtained results showed that only 3 virgin olive oil samples (25%) have free acidity that does not differ significantly ($p \leq 0.05$) from IOC standard, whereas 68% of the samples had acidity values of $\leq 2\%$. Such increase in free acidity results is an indication for the poor handling during processing. Peroxide values of the studied virgin olive oil samples, presented a mean value of $12.10 \text{ meq O}_2 \text{ kg}^{-1}$ and a range between $5.37 - 20.48 \text{ meq O}_2 \text{ kg}^{-1}$. According to the obtained total phenols (TP) results, it can be concluded that the Jordanian *Nabali* virgin olive oil might be characterized with a low to moderate TP content. The olive planting area had no clear effect on the TP content of the *Nabali* virgin olive oil whereas the commercial olive mills produced oils with higher TP compared to those produced using experimental mills. The studied Jordanian *Nabali* virgin olive oil samples could be considered as having between a moderate to high level of oleic acid (65.35 - 73.05%).

Keywords: virgin Olive oil, chemical properties, fatty acid profile, total phenol content.