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# Evaluation and Selection of Superior Olive Genotypes with High Oil and Yield

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Olive is one of the oldest trees that humankind has been able to cultivate to feed itself. During this time selection has been performed according to fruit size, yield and oil contain. This research was conducted on native olive collction at olive research station of Tarom based on randomized complete block design with three replications during 2012-2016. The aim of this research was to achieve productive cultivars with high oil. The measured traits included oil percent at three harvesting stages in three years and fruit yield in five years in more than 100 olive genotypes and cultivars. Analysis of variance indicated that the effect of genotype and year were significant on oil percent and yield. Results of mean comparison of yield of 5 years indicated that only 11 genotypes or cultivars had a yield more than 25 Kg tree$^{-1}$. Cultivar of Koroneiki with 35.38 Kg tree$^{-1}$ had the highest stability and average yield. The other olive cultivar, Conservolia and genotypes of Bn6, Kh12, Kh20 are in the next bands. Also the genotypes of Tmo3, Gorgan3 and Gw1 can be selected as promising group for good performance ond oil percent. The early ripening genotype was Mari valipor1 with 64% oil at the end of September. Late ripening genotypes with high oil were Ps7, Ps5 as well as Koroneiki.
**Keywords:** Breeding, Harvest time, Olive oil, Production stability.



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