Scientific Future Group
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World Congress on
Nutrition and Obesity Prevention Source
November 16-18, 2017, Barcelona, Spain

# Functional Character Determination of Olive Oils for New Olive Cultivar Candidates Obtained by Cross Breeding

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This research is aimed to generate olive oils with increased functional properties and nutrient content. In this research, fruits and oils of 9 hybrid olive genotypes were used as material which was harvested from olive cross breeding parcel in Atatürk Central Horticultural Research Institute (Yalova/TURKEY). These genotypes were generated by crossing Turkish (Edinciksu, Gemlik and Uslu) and foreign (B. D'espagne and Lucques) olive cultivars during cross breeding studies of a national project. Maturation index and oil content of their fruits and dl-alpha tocopherol and total phenol content, fatty acid composition, omega-6:omega-3 fatty acid ratio and total antioxidant activities of their oils were evaluated. Oils were obtained from fruit of olive genotypes by cold pressing. Maturation index and oil content of genotypes were determined between 4,2-5,8 and 15,28-20,66 (%). Total phenolic content and antioxidant activity of oils were 85,32-161,52 mg/kg gallic acid equivalent and 301,52-731,65 µM/kg trolox equivalent. Omega-6/omega-3 fatty acid ratio of oils was between 7,35 and 10,72. These results showed that it is possible to develop and register new olive varieties which have olive oils with improved functional properties by this cross breeding and selection study.

## Biography:

Dr. Yasin Özdemir has been the research scientist 2007–present in the Department of Food Technologies, Ataturk Central Horticultural Research Institute. He was also an auditor of 'Food Safety and Standards' 2004–2007 in the Yalova Agriculture Ministry Office, Turkey. He has 1.st Natinal Olive Oscar Award for his innovative olive technology research project at 2015. His research program involves: Functional foods, eco-friendly food technology, table olive technology, new fruit and vegetable selectin works for final step of breeding project, new food technologies, olive oil, food safety.