Functional Properties of Olive Mill Waste Water from Different Olive Cultivars Grown in South Marmara, Turkey

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The research was carried out with olive mill waste waters from 9 different olive cultivars located in South Marmara region of Turkey. Olive samples at the stage of ripening index between 5 and 6 were handpicked. The olives were mechanically extracted at laboratory conditions by using two-phase batch equipment. Ethyl acetate was used for phenolic extraction of samples. The total phenol contents was determined colorimetrically using the Folin–Ciocalteu reagent and was found between 1448.22 and 3350.69 mg GAE/l omww. Free Radical Scavenging Ability was determined with DPPH (2,2-diphenyl-1-picrylhydrazyl) method and was found between 83.06% and 87.36% of inhibition. The results showed omww of Edincik Su cultivar had the highest phenolic content where omww of Ayvalık cultivar had the highest free radical scavenging ability.

Key words: *Olive mill waste water, Total phenolic content, Free Radical Scavenging Activity*