

ABSTRACT

EFFECTS OF KAOLIN AND GLYCINE BETAINЕ APPLICATIONS ON THE YIELD AND QUALITY OF MEMECİK OLIVE VARIETY (*Olea europaea* L. cv. “MEMECİK”)

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This study aims to determine the effects of kaolin-based particle film technology, and glycine betaine, which is one of the osmoprotectants on the yield and quality of olive and olive oil against to the abiotic stress factors that can cause yield and quality loss in olive cultivation. Fruiting and non-fruited ‘Memecik’ olives trees selected in 2011 were applied to 3% and 6% both kaolin and glycine betaine besides control in 2012. Kaolin and glycine betaine applications at different doses were sprayed on trees at different intervals (twice or thrice) before flowering, and at fruit set and fruit enlargement.

Some physical, biochemical and physiological analysis on yield and quality in olive and regarding biochemical parameters analysis in olive oil were conducted in order to determine the effects of the applications. When the results of the trials are considered at large, glycine betaine application seems to come to the forefront of the best results in terms of statistically significant criteria. Considering application frequency and dose, 3% dose of glycine betaine showed up as the most appropriate dose for twice (once before the flowering and once after the flowering in fruit set period).

Keywords: Olive, kaolin, glycine betaine