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Nutrient Dynamics of *Olea europaea* L. Growing on Soils Derived from Two Different Parent Materials in the Eastern Mediterranean Region (Turkey)

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Abstract: *Olea europaea* L. (olive tree, Oleaceae), an important tree in the Mediterranean region, adds considerable amounts of leaf litters to soils, which may help in maintaining soil productivity. The aim of this study was to investigate temporal changes in the carbon (C), nitrogen (N), phosphorus (P) and potassium (K) contents of leaves, shoots, leaf litters and soils together with the amounts of leaf litters and humic and fulvic acids in the soils of olive trees growing on both marl and conglomerate parent materials in the Eastern Mediterranean region (Turkey). The element contents of leaf, shoot, leaf litter and soil samples and the amounts of olive leaf litters were compared between the 2 different parent materials at each sampling time. There were no statistical differences between the 2 parent materials. The results showed that olive trees can adapt to their environment very well without discriminating between parent materials. There were significant differences among the sampling times in the C and N contents of the leaf litters and available P content of the soils. This can be explained by the rapid decomposition of olive leaf litters during the sampling time intervals. Available P contents of the soils with marl and conglomerate parent materials may have been decreased by adsorption reactions over time.

Key Words: *Olea europaea*, Parent material, Litter, C, N, P, K, Humic and fulvic acids

 [Keywords](#)

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