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The Effects of External Daminozide (ALAR) Application on Nutrient Contents in Memecik Olive Trees

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Abstract : The objective of this study was to investigate the effects of external ALAR application on nutrients contents in leaf and node in 'on (bearing)' and 'off (non-bearing)' years in Memecik olive trees. For this purpose; 2000 mg L-1 ALAR was externally applied to Memecik olive trees, and leaf and node samples from olive trees were taken during the induction, initiation and differentiation periods in 'on' and 'off' years. Nutrients contents (N, P, K, Ca, Mg, Fe, Mn, Zn and Cu) in leaf and node samples were determined. The K, Ca, Mg, Fe, Mn, Zn and Cu contents were determined by atomic absorption spectrophotometry, Nitrogen by Kjeldahl procedure, and P by a spectrophotometric method. The results showed that the N, Ca, Mg, Fe, Mn, Zn and Cu contents in 'on' year were higher than 'off' year while the K contents in 'on' year were lower than 'off ' year, but the P content was not different. The N, Ca, Mg, Fe and Mn contents in leaf samples were higher in the node samples except for K while the P, Zn and Cu contents were not different. The N, K, Ca, Fe, Mn, Zn and Cu contents were lowest during the initiation period while the P content was highest in this period. The Mg content was not different in all period.

Keywords : bearing, differentiation period, induction period, initiation period, non bearing, olive
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