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EFFECTS OF INDOL -3- BUTYRIC ACID AND PUTRESCINE ON THE ROOTING OF THE `ZARD´ OLIVE CUTTING

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Olive is an evergreen, subtropical and long life tree that is native to Mediterranean area. The usual method of propagation of this tree is semi-hardwood cutting. The cuttings of olive are more difficult to root. So we performed an experiment with treatments including combination of 2000 mgl^{-1} IBA with one of the three putrescine concentrations of 0, 0.1 and 1 mM. The experiment was done as a completely randomized design with four replications. In this study two levels of 0.1 and 1 mM putrescine increased callus and root production, number and length of root per cutting, compared to control treatment. There was no significant difference between these two concentrations. Also by reviewing the effect of IBA and putrescine along time, results revealed that the percentage of cuttings with callus were higher after two months and treating with IBA and putrescine compared with four month. Whereas rooted cuttings were higher at four month sampling. By the time, the number and length of the roots per cutting were increased. Overall, use of 0.1 and 1 mM putrescine following treatment of cutting with 2000 mgl^{-1} IBA were better treatment, so that it can help rooting and following growth of the 'zard' cultivar, so it can be used for improving propagation method of this plant.

Keywords: olive, indole butyric acid, putrescine, cuttings, callus and rooting.