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IN VITRO CULTURE OF EXPLANTS FROM FIELD-GROWN OLIVE TREES (OLEA EUROPAEA L.)

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Olea europaea L., invitro culture shoot growth, callus induction

The use of *in vitro* culture, as a tool for the induction of genetic variability in olive (*Olea europaea L.*) clones and varieties through somaclonal variation and mutagenesis, depends on the possibility to establish cultures of explants from field-grown plants, as well as on the definition of efficient methods of regeneration.

To start *in vitro* culture, stem segments with apical and axillary buds were obtained from branches of field-grown olive trees. Among different sterilization procedures, the combined use of HgCl₂ and NaClO provided the best results.

The explants were cultured on the modified "Olive Medium" (OM), supplemented with 5 mg/l of zeatin. The apical buds showed a better survival compared to lateral ones and subsequently developed shoots.

Callus formation was observed in the abscission zone of leaf petioles. Callus was also produced on explants grown without zeatin.