

Regeneration of plants from somatic embryos of *Verticillium dahliae*-resistant wild olive genotypes

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Regeneration capacity, via somatic embryogenesis, of several wild olive genotypes differing in their response to *Verticillium* wilt (resistant genotypes Stop Vert, Out Vert, Ac4 and Ac 18 and the susceptible Ac 15) has been evaluated. To induce somatic embryogenesis, methodologies previously used in cultivated (high ratio cytokinin/auxin) or wild olive (low ratio cytokinin/auxin) were used. Obtained results revealed the importance of genotype, explant type, mineral formulation and hormonal balance in the induction process, ca. use of apical buds obtained from micropropagated shoots following the methodology of Mazri et al. (2013) in cultivated olive (4 days in liquid medium MS ½, 30 µM TDZ – 0.54 µM ANA, 8 weeks in basal medium MS ½, followed by subculturing in ECO basal medium supplemented with 0.5 µM 2iP, 0.44 µM BA and 0.25 µM IBA) was adequate to obtain somatic embryos in 2 genotypes, Stop Vert and Ac18, but no embryogenic response was observed in the other three. An analysis of genetic stability on Stop Vert, using SSR and RAPDs markers, was carried out in embryogenic callus, plants regenerated from this callus and micropropagated shoots in comparison with the mother plant. Polymorphism was only observed in the banding pattern generated by RAPDs in one of the 10 callus samples evaluated, resulting in a variation rate of 0.07%. This is the first time in which plants have been regenerated via somatic embryogenesis in wild olive.

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