## Somatic embryogenesis of cotyledon fragments in immature fruit of olive

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In this study olive cotyledones from three cultivars (Roghani, Zard ,Mari) were used . Proximal and distal parts of the seed cotyledons, collected 75 days after fertilization, were cultured in 1/2 OM with combination of NAA and BAP, then incubated in dark at 23C.

Swelling in proximal part was occured. Addition of 2ip gave to induce embryogenesis. Global masses of embryoes are obtained and their growth was followed by elimination of 2ip. Produced embryoes were subcultured in medium that contains alone 2 mg/lit BAP or with 0.5 mg/lit NAA.Transfering of remaind callus to same medium but without glutamine resulted secondary somatic embryoes formation. They were converted to plantlet in the presence or absence of NAA. Unusual plantlets were produced in medium contained auxin, whereas the growth of root was much more. Plantlets consisted of 8 to 24 leaves were produced after 14 months. However they had different levels of root and internode growth.