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## The effects of subculture methods on browning of callus derived from *Corylus avellana* L cotyledons

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Hazel has been reported as a taxol-producing species, which is a potent antimitotic drug employed in many different cancer treatments, through bioprospection among angiosperms. Plant cell culture is considered as one of the most promising approaches to provide a stable supply of taxol and related compounds, generally named taxanes. Callus browning is a major problem of callus cultures derived from the cotyledon of *C. avellana* L. Brown callus results in decreasing regenerative ability, poor growth and even death, especially through the first subculture. In this study, we investigated the effect of subculture methods on reduction of callus browning. Two subculture methods were applied: consecutive subculture the cotyledons callus in the same solid medium for 4 weeks; subculture the cotyledons callus in the liquid medium with the same composition and then immobilized the cells on the solid medium. The results indicated that subculture the callus in the liquid and then solid medium can practically reduce callus browning and increase the viability of callus.

### Biography

Sara Rahpeyma is an Assistant Professor of Plant Breeding Engineering in Department of Agricultural Biotechnology at Shahid Bahonar University of Kerman, Iran. Her research programs have been on plant secondary metabolites and also, her graduate work focused on enhancing the production of paclitaxel in cell suspension culture of *Corylus avellana*.

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