Tissue culture studies of wild and cultivated pistachio plants of Iran

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Pistachio wild forest are distributed in the most part of Iran , our country is the first producer and exporter of pistachio nuts in the world.

It is estimated that, there are more than 55 millon pistachio trees in Iran. Pistachio plants are dioecious and for this reason they have large genetic diversity . Pistachio plant can not be readily propagted from cutting taken from mature trees and it's current propagation method is grafing. Therefor tissue culture of pistachio in order to producing callus and shoots and finally suitable plantlets is proposed as a new and advanced method.

This research has done on species: *Pistacia khinjuk, p.atlantica subsp. mutica; and P.vera* from Serakhs and cultivars Akbary, Kalleghochi, Fandoghi. MS medium and different concentration of auxins: IBA, NAA, 2,4-D , and cytokinins: BAP, Kin were used.

Explants selected directly from apical and nodal buds of mature plants and also from cotyledons , shoot and apical bud of seedlings. Resulted callus and shoot from the above explants were studied comparatively. The best results of callogenesis obtained by using of NAA and BAP. BAP and IBA caused to maximum growth and shoot formation. Among the studied wild and cultivated pistachio plants *P.vera*, from Sarakhs had maximum stem lenght and apical growth in our experiments.