

## عنوان مقاله:

(.Study of factors affecting direct shoot regeneration of pear (*Pyrus communis* L

## محل انتشار:

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## خلاصه مقاله:

Conventional methods of pear breeding, largely based on intra- and inter-specific hybridization, are difficult because pear is highly heterozygous, polygenic and has a long juvenile period. Genetic improvements of pear cultivars are possible through induction of mutations and gene transfer by genetic engineering. A general prerequisite for these approaches is to establish an efficient plant regeneration system. In the present study, the effect of two basal media (MS and NN) and different concentrations of TDZ (0, 2.5, 5, 7.5  $\mu\text{M}$ ) or BAP (0, 4, 8, 16  $\mu\text{M}$ ) in combination with NAA (1  $\mu\text{M}$ ) on direct shoot regeneration of two pear (*Pyrus communis* L.) genotypes 'Bartlett' and 'Dargazi' was investigated. The obtained results showed that 'Dargazi' had higher rates of shoot regeneration than 'Bartlett' and in both cultivars the highest percent of shoot regeneration was observed from lower sections of the leaves. Although the highest percent of shoot regeneration in 'Bartlett' (38%) was attained in the NN medium containing 2.5  $\mu\text{M}$  TDZ and 1  $\mu\text{M}$  NAA, the differences in shoot regeneration between this medium and the NN media containing 5 or 7.5  $\mu\text{M}$  TDZ and 1  $\mu\text{M}$  NAA were not significant. The highest percent of shoot regeneration in 'Dargazi' (56%) was obtained in NN medium containing 7.5  $\mu\text{M}$  TDZ and 1  $\mu\text{M}$  NAA. It can be concluded that genotypes, explant types and culture media composition could effect on direct shoot regeneration of pear.

## کلمات کلیدی:

direct shoot regeneration, pear, thidiazuron

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