

عنوان مقاله:

Efficient protocol for break impasses of regeneration via callus for 20 genotypes of chickpea

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خلاصه مقاله:

The results of studies on in vitro regeneration of chickpea (*Cicer arietinum* L.) have shown that indirect regeneration via callus was not successful. The introduction of an efficient and repeatable regeneration protocol is necessary for using transgenic technologies for the improvement of chickpea. The present study was undertaken to investigate the possibility of indirect regeneration in various chickpea genotypes. In this experiment, cotyledonary node explants of 20 chickpea genotypes were cultured on 6 callus induction media and were sub-cultured on 6 shoot induction media with different combinations of phytohormones that are introduced in other literatures as best combination for regeneration. The results showed that reduction in experimental time and cost was possible by only transferring green calluses to other processes of culture. It seems that the results of this study and the suggested protocol could be used in genotypes as MCC426, MCC495, MCC496, MCC724, MCC741, MCC763, MCC764, MCC769, MCC775, MCC 779, MCC780, MCC798, MCC805 and MCC814 in suggestive media for genetic transformation and other projects where organogenesis via callus formation is necessary.

کلمات کلیدی:

Chickpea (*Cicer arietinum* L.), Callus-mediated shoot formation, Zeatin, IBA, organogenesis, regeneration

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