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The Effect of Some Plant Hormones on *In Vitro* Properties of Sainfoin (*Onobrychis sativa* L.)

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ABSTRACT

This study prepared was carried out determining plant growth hormones (PGH) (NAA, BAP, KIN and TDZ) on formation of tissue culture on the sainfoin plants (*Onobrychis sativa* L.) grown in *in-vitro* conditions. This study which is applied 55 different methods was performed in two sections. In the first stage, the seeds were sprouted in hormone-free environment. In the second stage, the explants (cotyledon, root and hypocotyl) obtained from the plantlets were transferred to the environments including different hormone, dose and hormone-dose combinations. For the effect of plant growth hormones, the highest number of shoots (29.0 nr) was obtained from the dose 1.5 mg l^{-1} of BAP in the end of 90th day. Shoot number on cotyledones increased depending on incereasing number of treatment/day and the highest number of shoot (7.8 nr) was obtained from the dose 1.0 mg l^{-1} of TDZ in the end of 90th day. The best result in terms of rooting (14.8 nr) was obtained from the dose 0.4 mg l^{-1} of NAA from hypocootyl. The highest vigor rate (96.9 %) was obtained from the dose 1.5 mg l^{-1} of TDZ in the end of 90th day.

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