

## Investigation on Interaction Effect of Benzyladenine and Chitosan on *in vitro* Proliferation of Strawberry (*Fragaria × ananassa* cv. Selva)

Jalili Marandi<sup>1\*</sup>, R., Naseri<sup>1</sup>, L., Mohseniazar<sup>1</sup>, M., Hajitagiloo<sup>1</sup>, R. and Marhamati<sup>1</sup>, M. R.

### Abstract

Micropropagation of strawberry provides possibility of fast multiplication. Growth regulators can be effective on micropropagation of strawberry and fast multiplication. To attention to the importance of proliferation stage of micropropagation, in this research an investigation carried out on the interaction effect of benzyladenine (BA) and chitosan. The Murashige and Skoog (MS) culture medium was supplemented with BA in two concentration (1 and 2 mg/l) and Chitosan with high molecular weight in five concentration (0,20,30,40 and 60 mg/l). A factorial experiment based on completely de +sign with eight replication was used. Evaluated characteristics included number of shoots, diameter of shoots, length of shoots, number of leaves, size of leaves, chlorophyll content and dry weight of plant mass. Based on the obtained results there was not significant differences between 1 or 2 mg/l concentration of BA from the point of effect on examined characteristics. The highest number of shoots, diameter of shoots, number of leaves and dry weight of plant mass were obtained in 1 or 2 mg/l BA and without chitosan. But the highest length of shoot and chlorophyll content were observed in combination of 1 or 2 mg/l BA with 30 mg/l chitosan. The highest leaf size were obtained in combination of 1 or 2 mg/l BA with 0, 20, 30 or 40 mg/l chitosan. According to the results, 1mg/l BA was significant effective on proliferation of Selva strawberry.

**Keywords:** Proliferation, Strawberry, Benzyladenine, Chitosan, *in vitro*

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1. Associate professor, Assistant Professor, MS in Horticulture Respectively, Department of Horticulture, Faculty of Agriculture, Urmia University, Urmia

\*: Corresponding author

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