

Improved biotechnology for *in vitro* propagation of *Lavandula angustifolia* and *Rosmarinus officinalis* species

Since *in vitro* culture involves significant costs, there have been concerns about reducing electricity consumption by performing *in vivo* rooting of shoots simultaneously with acclimatization. The improvement of *in vitro* propagation technology has contributed both to reducing costs and to shortening the production time of planting material by at least four weeks.

Requests from private units regarding the supply of propagation material and its production technologies for plants of economic interest led to the conduct of feasibility studies for the purpose of comparative evaluation of the efficiency of the two rapid propagation methods (standard and improved). One such study was conducted on the species *Lavandula angustifolia* and *Rosmarinus officinalis*. It showed that by applying the improved technology, 13,75% more lavender plants and 19,44% more rosemary plants were obtained than when applying the standard technology. Also, production costs decreased by 17%, while profit increased by 4,91 times. As a result, the average rate of return is 71,22% for improved technology, compared to 61,22% for standard technology.

***In vitro* propagation technology of the *Origanum majorana* species**

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Authors: Ana-Maria Radomir, Cristinel Mihai Tudor Radu

Main features

- the technology is intended for the production of planting material of *Origanum majorana* (marjoram) through *in vitro* propagation.
- the working methodology consists of inoculating explants on MS culture medium (Murashige - Skoog, 1962) supplemented with 1 mg/l BAP (benzylaminopurine) under sterile conditions in a laminar airflow hood; transfer of explants that have started growing on MS medium supplemented with 2 mg/l BAP and 0,5 mg/l ANA (naphthylacetic acid) in order to regenerate, elongate and rooting of shoots; acclimatization and fortification of *in vitro* regenerated plants.



Aspects of *in vitro* culture