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In vitro Introduction of *Rosmarinus officinalis* L.

Mariya V. NEPLOKH, Mikhail Yu. CHEREDNICHENKO
Department of Genetics, Biotechnology, Plant Breeding and Seed Science,
Russian Timiryazev State Agrarian University, Russian Federation
lamiaceae109@gmail.com

Aim of the study: *Rosmarinus officinalis* is a well-known aromatic plant used in all countries for various medical and culinary purposes. Rosemary extract has a variety of pharmacological activities, such as antioxidant, antimicrobial, chemoprophylaxis against cancer, antidiabetic, DNA-protective, choleretic, hepatoprotective, stimulating and mild analgesic. The introduction of rosemary into *in vitro* culture is of great importance for obtaining a large amount of quality material. The aim of our studies was the search of optimal conditions for introduction of *R. officinalis* into *in vitro* culture.

Material and Methods: The *R. officinalis* seeds used in the work were granted by Conservatoire et Jardins Botaniques de Nancy (France) and by breeding company "Plazmennye semena" (Russia). As sterilizing agents, a 5% solution of sodium hypochlorite and a 0.1% solution of mercury (II) chloride were used. The duration of sterilization was 5, 10 and 15 minutes. After sterilization, the seeds were transferred on the Murashige and Skoog (MS) nutrient medium. Seed germination took place in a light room. To evaluate the plant growth dynamics, measurements were taken at intervals of 7 days. The height of the plant and the diameter of the leaf blade were measured.

Results: No sterilization modes had a proper positive effect on plant development. However, it can be concluded that treatment with a 0.1% solution of mercury (II) chloride with an exposure of 5 and 10 minutes was the best modes for seed germination. The plants developed relative slowly. But it is still possible to note the sterilization with the 5% solution of sodium hypochlorite as the best mode for subsequent plant development. The leaf growth is directly proportional to the height of the plant.

Keywords: *Rosmarinus officinalis*, Lamiaceae, *in vitro* culture, plant sterilization, medicinal herb, culinary herb