

Original article

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Adaptation of Forest Berry Plants to Non-Sterile Conditions *in vivo* Using Modern Biological Products

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Abstract. The results of research on the adaptation of half-highbush blueberry, arctic bramble and lingonberry plants of promising cultivars and forms to non-sterile conditions *in vivo* using modern biological preparations of the mycorrhizal type. Regenerated plants are planted in cassettes and tablets with peat and coconut substrates. Variants of the experiment are the addition of preparations containing mycorrhiza (Mycogel, BioMycorrhiza) and mulching the plantings with sphagnum. The maximum survival rates in the experiments without mulching are observed in the variants of adding the BioMycoriza preparation to the substrates. The highest survival rates in experiments using peat substrates in cassettes are found for half-highbush blueberry and lingonberry plants, and in tablets – for arctic bramble. Arctic bramble plants have a highest survival rate during the adaptation of plants on a coconut substrate in cassettes and tablets, while half-highbush blueberry and lingonberry plants have low rates. The regularity of the adaptation rate of plants depending on the type and composition of the substrate remained in experiments with mulching of plantings with sphagnum in cassettes, however, compared with the variants of the experiment without mulching, similar maximum survival rates increased significantly. There are no significant differences in indicators depending on the cultivar or form. The use of biological preparations of the mycorrhizal type and mulching of peat substrate with sphagnum contribute to better adaptation of forest berry plants to non-sterile conditions.

Keywords: forest berry plants, half-highbush blueberry, arctic bramble, lingonberry, clonal micropropagation, *in vivo*, adaptation, substrate, mycorrhiza.

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