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Adaptationof Varietal Planting Material of Lingonberry to Non-Sterile Conditions *ex vitro* for Growingon Non-Forest Lands

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Abstract. *The results of studies on the adaptation of plants of lingonberry (Vaccinium vitis-idaea L.) of Kostromskaya rozovaya, Kostromichka and Koralle cultivars to non-sterile ex vitro conditions using various substrate compositions, modern growth-stimulating drugs and mulching are presented. High-moor peat, mixtures of peat with sand (1:1), with vermiculite (1:4) and perlite (1:4) are used as substrates. Spraying with water and solutions of growth-stimulating preparation Zircon 0.5 ml/l and HB-101 0.1 ml/l are used as treatment options. May is the optimal time for plant transplantation when adapting the planting stock of common lingonberry in vitro to non-sterile ex vitro conditions. The best survival rate (90–98 %) is observed on high-moor peat in all treatment options and on mixtures of peat with perlite (1:4) and vermiculite (1:4) with treatment with HB-101 0.1 ml/l. The maximum values of the number of shoots (5.1–7.2 pcs.) lingonberry ex vitro are observed on the high-moor peat substrate, the number of leaves (96.7–115.2 pcs.) – on a mixture of peat with vermiculite 1:4. The maximum values of the biometric parameters of lingonberry on all substrates are in the variants of treatment with the HB-101 preparation 0.1 ml/l. A higher survival rate (92–99 %) of lingonberry plants is noted when mulching plantations with Sphagnum L. moss in comparison with experiments without mulching. There are no significant differences between the variants of experiments with and without mulching in the number of shoots and leaveslingonberry.*

Key words: *lingonberry, forest berry plants, clonal micropropagation, in vitro, adaptation, ex vitro, substrate, survival rate.*

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