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Rooting *in vitro* and Adaptation to Non-Sterile Conditions of Russian Selection Cultivars of Lingonberry

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Abstract. *The results of studies on clonal micropropagation and adaptation to non-sterile conditions of lingonberry cultivars of Russian selection (Kostromskaya Rozovaya, Kostromichka). The highest indicators of the number (on average 4.3–4.4 pieces) of lingonberry are on Anderson's nutrient medium with the addition of IAA at a concentration of 2.0 mg/l during clonal micropropagation at the stage of rooting of microshoots in vitro. The highest total length of lingonberry roots in vitro is noted when using IAA for the Kostromskaya Rozovaya cultivar (12.5 cm) – at a concentration of 2.0 mg/l, for the Kostromichka cultivar (11.9 cm) – 1.0 mg/l. May is the best period of adaptation of regenerated lingonberry plants of Russian cultivars, while the highest survival rates (76–82 %) are noted when using substrates from high-moor peat, mixtures of peat with vermiculite (1:4) and with perlite (1:4). The best average indicators for the number (5.2–6.0 pieces) and length (12.3–13.9 cm) of shoots, the number of leaves (29.6–30.2 pcs.), number (8.3–9.3 pcs.) and length (10.3–14.2 cm) of roots of adapted lingonberry regenerated plants to a hydroponic installation are detected on the 40th day after its transplantation. The use of clonal micropropagation and the hydroponic method of cultivation makes it possible to obtain the required amount of high-quality healthy planting material of lingonberry for industrial cultivation.*

Key words: *lingonberry, cultivar, clonal micropropagation, in vitro, ex vitro, adaptation, substrate, hydroponics.*

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