

Original article

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The Use of Modern Growth-Promoting Eco-Preparations for Microclonal Propagation of Lingonberry (*Vaccinium vitis-idaea* L.)

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Abstract. The results of studies on the cultivation of lingonberry (*Vaccinium vitis-idaea* L.) of Kostromskaya rozovaya, Kostromichka and Koralle cultivars in vitro using Anderson's nutrient medium with various dilutions of the mineral composition. Growth-regulating substances are 2-iP cytokinin at concentrations of 1.0–2.0 mg/l, IBA and IAA auxins at concentrations of 1.0–2.0 mg/l; growth stimulants are solutions of preparations Zircon at a concentration of 0.5 ml/l and HB-101 at a concentration of 0.1 ml/l. The maximum total length of lingonberry shoots (8.1–8.4 cm) at the “actual micropropagation” stage is noted on AN nutrient medium at a cytokinin 2-iP concentration of 0.2 mg/l and the addition of growth stimulator HB-101 0.1 ml/l. The maximum total length of lingonberry roots in vitro (9.6–10.8 cm) at the “rooting of microshoots” stage is noted at a concentration of auxin IAA in the nutrient medium of 2.0 mg/l and the addition of HB-101 at a concentration of 0.1 ml/l. The addition of the growth stimulator HB-101 at a concentration of 0.1 ml/l to the nutrient medium contributed to an increase (by 1.4–1.6 times) in the total length of lingonberry microshoots and roots compared to the control.

Keywords: lingonberry, forest berry plants, clonal micropropagation, in vitro, organogenesis, rhizogenesis, growth stimulating substances.

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