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Influence of Light on the Organogenesis of the European Cranberry (*Oxycoccus palustris* Pers.) during Clonal Micropropagation

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Abstract. *The results of studies on the effect of illumination of different spectral ranges on the organogenesis of marsh cranberry plants of the Dar Kostroma cultivarand the promising hybrid form 1-15-635 during clonal micropropagation at the stages of "proper micropropagation" and in vitro rooting. Regenerated plants cultivated on a WPM nutrient medium with addition of 2ip 0.5 mg/l at the micropropagation stage, and IMC 0.5 mg/l at the in vitro rooting stage. LED lamps of a white spectrum and with a combination of white and red spectra, as well as white fluorescent lamps are used for lighting. A significant increase in biometric parameters of marsh cranberry plants in vitro is revealed when illuminated with LED lamps with a combination of white and red spectra. The number of microshoots of marsh cranberry under illumination of regenerant plants with LED lamps with a combination of white and red spectra is almost 1.9 times greater, and the total length is 4.0–4.2 times greater than under illumination with white spectrum lamps. More powerful development of the aboveground part of the marsh cranberry plants contributed to the more intensive development of the root system. The number of roots was 1.8–2.5 times greater, and the total length was 2.4–3.5 times greater when the aboveground part of the plants is illuminated with lamps with a combination of white and red spectra than with white lamps. A more powerful aboveground part and root system are formed in marsh cranberry plants of hybrid form 1-15-635 than the Dar Kostroma cultivar.*

Keywords: *forest berry plants, European cranberry, in vitro, clonal micropropagation, LED lamps, spectral light composition.*

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