Abstract

This study was carried out to determine the effect of 24-eBL (0, 0.5, 1.5 and 2.5 ppm) applications on the growth and essential oil accumulation in peppermint (Mentha piperita L.) planted in the pots with vermiculite and perlite under incubation room condition. As a result of the study, it was demonstrated that all of the investigated parameters were affected by the exogenous applications of 24-eBL without showing toxic effects on the plant growth and development. Fresh and dry weights of plants increased in line with the elevating concentrations of 24-eBL. Essential oil content in the plants applied with 24-eBL were significantly higher than that in control plants. 24 e-BL had also positive effects on menthol synthesis. The highest menthol content was found in the plants treated with 0.5 ppm 24-eBL. As a result, 2.5 ppm of 24-eBL treatment was the most suitable concentration providing the highest plant growth. On the other hand, 0.5 ppm of 24-eBL was optimum for essential oil production because of giving the maximum essential oil and menthol content.