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**STUDY ON THE ROOTING OF AZALEA (RHODODENDRON JAPONICA)
CULTIVAR 'WHITE LADY' BY DIFFERENT INDOLEBUTYRIC ACID
CONCENTRATIONS AND HYDROGEN PEROXIDE**

Mohammad Mehdi Sharifi, Nurseryman, Sharifi Azalea Production Greenhouse, Iran; sharifiazalea@gmail.com (Presenting author)

Rezvan Ghasemnezhad, Department of Horticultural Science, University of Guilan, Rasht, Iran; ghasemnezhadrezvan@yahoo.com

Younes Mahdavi Fikejvar, Department of Horticultural Science, Islamic Azad University, Science Research, Branch, Tehran, Iran; mahdavi_nursery@yahoo.com

Hanieh Rafiee, Department of Horticultural Science, Islamic Azad University, Science Research, Branch, Tehran, Iran; hanieh_r20032003@yahoo.com

Azalea is one of the very beautiful and popular ornamental plants in Iran and in the world. The commercial propagation of this plant is by stem cutting and in order to obtain the best protocol for maximum rooting at the minimum time, this study was investigated by indolebutyric acid (IBA) hormone at 5 levels (0, 1000, 2000, 4000 and 8000 mg L⁻¹) and hydrogen peroxide in 2 levels (0 and 2% w/v). Cutting was prepared from the one year old branches of azalea var. as experimental material and perlite media was used for experiment and this experiment was conducted inside the greenhouse in late September. Experimental design as factorial based on a randomized complete blocks design with 10 treatments and 3 replications and 10 cuttings in each treatment was considered as experimental materials. In order to perform treatment, first cuttings were treated for 3 s with hydrogen peroxide (H₂O₂) and then were treated with IBA hormone for 5 s. Two months after treatment data were collected and evaluated characteristics were rooting percentage, root number, the highest length of root and also the number of dried cuttings. The highest rooting percentage was 93.3% at 1000 mg L⁻¹ of IBA without hydrogen peroxide and the lowest rooting percentage was at the higher concentration of IBA, 8000 mg L⁻¹. And the average of root number of in the best situation was 17.3 at 1000 mg L⁻¹ of IBA with 2% of hydrogen peroxide. The tallest root with 14 mm was at 4000 mg L⁻¹ of IBA with 2% of hydrogen peroxide and we saw the highest amount of dried cuttings at higher concentration of IBA that was 4%. The results of this study showed that IBA hormone at lower concentrations caused acceleration of rooting and at the high concentrations caused loss of cuttings. And hydrogen peroxide had no significant effect on rooting of this plant.

Keywords: Length of the tallest root, dried cutting, Low concentration, Rooting acceleration, Root number