STUDY ON THE EFFECTS OF LIGHT CONDITION, WATER, CULTIVATING MEDIUM AND STIMULANTS TO ROOT BUILDING CAPABILITY, BIOMASS OF Acacia crassicarpa

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Summary

With ANOVA and standard Student and $\chi^2$, the research have chosen the best cultivating medium is 100% of B soil layer with 80.81% of root germination and root biomass of 3.03 g, stem diameter of 4.43 mm, and the height of 34.5 cm, net fresh biomass of 16.13 g, and dry biomass of 9.13 g. The watering treatment identify the suitable treatment for 1-60 day old seedlings is praying every 3 minute with 4 second will bring about highest root germination 79.8%. Watering for 60 – 90 days old seedlings is prayed every 5 minutes with 6 second create highest seedlings growth (evaluated at 120 days old), the root biomass is 3.33 g, stem diameter of 4.4 mm, height of 34.5 cm, fresh biomass of 16.4 g, and dry biomass of 9.17 g. The research identified most suitable light condition is 100% with root germination of 80.81%, root biomass of 3.33 g, stem diameter of 4.47 mm, height of 34.5 cm, net fresh biomass of 16.27 g, dry biomass of 9.2 g. The stimulant identified is IBA 200 ppm creating highest root germination of 81.82%. From the result, we identify the cutting techniques of this tree species is: cultivating medium: 100% B soil layer, treating stimulant is IBA 200 ppm, light condition of 100%; from 1 to 60 days old, water praying is every 3 minute for 4 second. For 60-90 days old seedlings, water praying is every 5 minute for 6 second.

Key word: Light, cultivating medium, cutting, IBA, watering.