

Thesis title: Effect of Paclobutrazol with NAA on Growth of *Pachira aquatica*
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Abstract

This study was to investigate the suitable concentration of Paclobutrazol (PBZ) with 1-naphthyl acetic acid (NAA) on growth and root weight of *Pachira aquatic*.

Experimental design was Completely Randomized Design with 5 treatments and 4 replications. Treatment 1 consisted of PBZ concentration at 0 mg/L combine with NAA concentration at 0 mg/L and were control treatment (T1). For Treatment T2, T3, T4 and T5 were applied with PBZ concentration at 500 mg/L combine with NAA concentration at 0, 1000, 1500 and 2000 mg/L, respectively. Data was collected at 10 weeks after shoot topping of *Pachira aquatic*. Analysis of variance (ANOVA) was performed and means among concentration at treatments were compared using duncan's new multiple range test (DMRT).

The result showed that treatment 3 (PBZ concentration at 500 mg/L combine with NAA concentration at 1,000 mg/L) gave a suitable stem height for the trade of *Pachira aquatica* at 60.50 cm and diameter of new shoots at 0.61 cm. The numbers of shoot per pot were the highest at 5.25 shoots per pot. The leaves per pot were the highest at 22.25 leaves per pot. For the mean leaf width and leaf length showed that T1 gave the highest value as 4.47 cm and 13.98 cm, respectively. Moreover, T5 gave the highest root fresh weight per pot and root dry weight per pot as 9.43 g and 0.95 g per pot, respectively. The color shades of leaf in all treatments were dark green color except the control treatment. Therefore, T3 was suitable for the trade of *Pachira aquatica*.

Keywords: *Pachira aquatica*, Paclobutrazol, 1-Naphthyl acetic acid, Pot plant