

## **Growth of Longan cuttings (*Nephelium Longan L.*) at various planting media and growth regulator substances.**

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### **ABSTRACT**

Longan is fruit that much loved by Indonesian. Cultivation of longan in Indonesia always have problems, one of them is low availability of seedlings. The need of seedling can be fulfilled with vegetative method, one of them is cuttings method. The success of cuttings is strongly affected by various planting media and concentration of growth regulator substances (GRS). This research aimed to determine the effect of various planting media and growth regulator substances on the growth of longan cuttings. This research was conducted in June 2018 until July 2018 held at Wedomartani, Ngemplak, Sleman, Yogyakarta. The experiment were arranged in Randomized Completely Blok Design using two factors. First factor was the composition of planting media, i.e., soil:charcoal husk (1:1), sand:charcoal husk (1:1), and soil:sand:charcoal husk (1:1:1). Second factor was concentration of growth regulator substances, Z0 (without growth regulator substances), Z1 (15 g/10 mL), Z2 (20 g/10 mL) and Z3 (25 g/mL). There were 12 combination of treatments with three replicates and 36 experimental plots. Data were subjected to analysis of variance followed by Duncan's Multiple Range Test ( $\alpha = 5\%$ ). The result showed there was an interaction between planting media and concentration of growth regulator substances on the point in time of shoot growth. The best combination were concentration of growth regulator substances 25 g/10 mL with any composition media. Plant growth substances significantly affected the point in time of shoot growth, the number of leaves, number of root, length of root and volume of root. The best concentration of growth regulator substances was 25 g / 10 mL. The composition of planting media significantly affected the point in time of shoot growth, the number of shoot, number of root and volume of root. The best composition of planting media to support growth of longan cutting was soil:sand:charcoal husk (1:1:1).

Keywords : longan, cuttings, growth regulator substances, planting media.