GROWTH OF VANILLA (*Vanilla planifolia* L.) CUTTINGS USING MULTIPLE TYPE OF STEM CUTTINGS MATERIALS AND ADDITION OF PGR

Abstract

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The constrain of vanilla development in Indonesia is the availability of quality seedlings in a short time. Efforts to produce high quality vanilla seedlings by using a multiple type of stem cutting materials and growth plant regulators. This study was conducted to determine the best combination of multiple type of stem cuttings materials and the addition of PGR on the growth of vanilla plant cuttings. The study used polybags arranged using RCBD consisting of two factors repeated 3 times. The first factor was the type of stem cuttings material which consisted of two levels: shoot and base stem. The second factor is PGR which consists of 4 levels: control, IAA 0,02%, young coconut water 50%, and shallot extract 50%. Data were analyzed using analysis of variance at the 5% level of significance and further tested using DMRT at the 5% level of significance. The result showed that there was an interaction between the use of type of stem cuttings and PGR on the parameters of shoot length in 6 WAP, cuttings height in 6, 8, and 10 WAP, and the number of leaves in 8 WAP. The treatment of base stem material gave the best growth in shoot length 8 and 10 WAP, number of leaves in 6 and 10 WAP, number of roots, root length, and root volume. Treatment of Coconut water PGR gave the best growth in shoot length 8 and 10 WAP. Shallots PGR gave the best growth in root volume.

Keyword: *Cuttings, Vanilla, IAA, Young coconut water, Shallot extract*