

## Pengaruh Pemberian Ekstrak Pisang pada Media VW terhadap Induksi Akar dan Pertumbuhan Tunas *Dendrobium lasianthera* J.J.Sm

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### ABSTRACT

**The Effect of Banana Extract at The VW Media on Root Induction and Growth of Shoot *Dendrobium Lasianthera* J.J.Sm.** Orchid has economic potential as a non-oil export commodities which can increase foreign exchange. In addition to supporting industry as cut flowers and potted plants, *Dendrobium* orchid in particular has been widely recognized as a traditional medicine. Orchids can be propagated in vitro using seed. The main problem in the propagation of orchid through seed culture is difficulty in root formation. In this study, we evaluated the effect of organic compounds of the banana extract at Vacin and Went medium containing peptone  $2 \text{ gL}^{-1}$  to induce growth of root and shoot of the *Dendrobium lasianthera*. The shoot measuring about 0.3-1.0 cm contain of 1-2 leaves obtained from the seed germination was cultured on VW medium containing  $2 \text{ gL}^{-1}$  peptone additives with  $50 \text{ gL}^{-1}$ ,  $100 \text{ gL}^{-1}$  and  $150 \text{ gL}^{-1}$  banana extract, and without banana extract was used as control. After 16 weeks of culture, number of roots, number of leaves, root length, leaf length, the shoot height, root and leaf widest diameters were recorded. Data were statistically analyzed using ANOVA and continued by honestly significance difference (HSD). The results showed that the extract of banana statistically gave a significant effect on root induction and growth of shoot *D. lasianthera*.

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*Keywords: Root induction, banana extract, shoot growth, Dendrobium lasianthera J.J.Sm*

### PENDAHULUAN

Saat ini anggrek telah menjadi komoditas perdagangan yang penting di Indonesia. Anggrek memiliki potensi ekonomi sebagai komoditas ekspor non migas yang dapat menambah devisa negara. Selain sebagai penopang industri bunga potong, ternyata anggrek khususnya genus *Dendrobium* telah dikenal luas sebagai obat tradisional. Produk obat-obatan

tradisional yang berasal dari anggrek bahkan telah lama diperdagangkan di China (Bulpitt, 2005). Berbagai metabolit sekunder bibenzyls, fluorenones dan gigantol telah diisolasi dari *Dendrobium nobile* yang mempunyai aktivitas antioksidan lebih tinggi dibanding vitamin C yang potensial sebagai antikanker (Rosa, 2010; Zhang *et al.*, 2007).

Senyawa baru dendroside D, dendroside E, dendroside F dan dendroside