

***IN VITRO* SHOOT REGENERATION FROM *Phaleria
macrocarpa*'s SEED**

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ABSTRACT

***IN VITRO* SHOOT REGENERATION FROM *Phaleria macrocarpa*'s SEED**

Phaleria macrocarpa (Mahkota Dewa) is a species of herbal plant that belongs to Thymelaeaceae family that can cure various types of illnesses as it occupy anti-proliferative, anti-inflammatory and anti-angiogenic properties. Plant tissue culture technique is used for mass propagation to fulfil the high demand of this plant without disturbing the rainforest biodiversity. Explants were cultured on Murashige and Skoog (MS) media that were supplemented with different concentrations of solely 6-benzyloaminopurine (BAP) and combination of different concentrations of BAP with 0.1 mg/L of α -naphthalene acetic acid (NAA). After surface sterilization of seed explants by using 20% Clorox, the bacteria was first seen after two days of cultured followed by fungus after 1 week of cultured. After fifth weeks in cultured, the percentage of seed clean culture was 18.57%, bacteria contamination was 41.43% and fungi contamination was 40%. Hypocotyl was first observed in all treatments after 3 days in cultured. After fifth weeks of culture, combination of BAP at 0.25 mg/L and NAA at 0.1 mg/L showed the highest number of leaves (3.80 ± 1.94) while control (MSO) treatment showed the highest length of shoot (3.57 ± 1.86). As a conclusion, all treatments including combinations of plant regulator hormone can induce shoot.