

ABSTRACT

H, Syaifiyatul. 2011. **The Effect *Benzilaminopurin* (BAP) treatment in proliferation *Protocorm Like Body* (PLB) orchid *Phalaeonopsis* and *Dendrobium* on ½ MS medium.** Thesis, Biology Department Science and Technology Faculty The State Islamic University Maulana Malik Ibrahim Malang. Advisors: Suyono, M. P and Umaiatus Syarifah, M. A

Key words: *Benzilaminopurin* (BAP), PLB, ½ MS medium, *in vitro*.

PLB is callus *cluster* that proliferate embryogenesis. The multiplication of orchid PLB was plant on MS solid medium recently, while plant on liquid medium is seldom to do. The result utilizing of solid medium by treatment BAP 0,5 mg/l is the most optimum in proliferation growth of puring plant (*Codicum variegatum*). On the other hand, by treatment BAP 0,5 mg/l in *Dendrobium* (var. *Candidum*) also result callus regeneration form PLB in 95% growth level. To solve many consumer orchid flower order in market, so orchid PLB product form *secondary embryo* PLB by tissue culture tehcnique. The aim of this research is to compare PLB *Phalaeonopsis* sp (var. *Marystripe* and *Taedasnow*) and *Dendrobium* sp (var. *Spectabile* and *Discolor*) growth.

This research was done in genetic and physiology tissue culture Biology department, Science and technology faculty The State Islamic University Maulana Malik Ibrahim Malang begine January-March 2011. The metode in this research is *qualitative* and *quantitative description*. PLB *Phalaeonopsis* sp and *Dendrobium* sp was plant on ½ solid MS medium, by treatment BAP: 0,5 mg/l. Then, PLB that formed on solid medium by treatment BAP 0,5 mg/l subculture into ½ MS liquid medium by treatment BAP: 0 mg/l (control); 0,5 mg/l; 1 mg/l; 1,5 mg/l; and 2 mg/l. The observation was done everyday for about one week on solid medium even on liquid medium in observe the exchange in texsture, color, size, and persentage of PLB.

The result of this research is PLB orchid *Dendrobium* sp and *Phalaeonopsis* sp on solid medium by treatment BAP 0,5 mg/l show the highest PLB growth proliferation is PLB *Phalaeonopsis* (var. *Taedasnow*) is 96%, and PLB *Dendrobium* (var. *Discolor*) is 97%. While PLB orchid *Dendrobium* sp and *Phalaeonopsis* sp solid that subculture from liquid medium by treatment BAP 1,5 mg/l show the highest proliferation PLB than other BAP concentrations with characterize the exchange of color, texsture, and size. The successful percentage of the highest PLB orchid *Phalaeonopsis* (var. *Taedasnow*) proliferation is 100%, and PLB *Dendrobium* (var. *Disclor*) is 92%.