RESPONSE OF LEAF EXPLANT OF *Curculigo latifolia* (HYPOXIDACEAE) TOWARDS DIFFERENT HORMONES TREATMENTS IN PLANT TISSUE CULTURE

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ABSTRACT

RESPONSE OF LEAF EXPLANT OF *Curculigo latifolia* (HYPOXIDACEAE) TOWARDS DIFFERENT HORMONES TREATMENTS IN PLANT TISSUE CULTURE

Curculigo latifolia (lemba) is an underutilized plant with high value especially medicinal properties. Even though traditionally used for food and natural remedies, it still possessed low market value due to lack of effort in cultivating the sources. Leaf explants were inoculated onto MS basal medium supplemented with combination of 6- Benzylaminopurine (BAP) and Naphthalene acetic acid (NAA) which vary in concentrations. In this study, the ranges on which the different hormones treatments that able to induce the response on *C. latifolia* was observed and determined. Direct root organogenesis were formed from leaf explant grown on Murashige and Skoog (MS) basal medium supplemented with 2.0 mg/L NAA alone and combination of 3.0 mg/L NAA and 0.5 mg/L BAP after four and six week, respectively. The highest number of root per explant were obtained in MS medium supplemented with NAA alone with average 5 roots emerged from one explant. Technique of sterilization was improved when disinfect the explant using 1 % $HgCl_2$. Even though aseptic condition and sterilization has been employed, contamination of cultures was still the most pressing problem in this study, whereby the contaminations were not successfully eliminated. Necrosis in culture material indicated the release of phenolic compounds. Further research should be concentrated on completely eliminate the contamination in culture.