

**PENGARUH KONSENTRASI GA<sub>3</sub> DAN SUKROSA TERHADAP PENCAPAIAN FASE EMBRIOSOMATIK PADA KALUS EMBRIOGENIK MANGGIS (*Garcinia mangostana* L) ASAL BIJI PASCA SUBKULTUR**

(The Influence of GA<sub>3</sub> and Sucrose Concentration On Achievement of Phase Embryosomatic On Embryogenic The Original Mangosteen (*Garcinia Mangostana* L) Seeds Post Subcultures)

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**ABSTRACT**

*The objective of this study was to determine the best concentration of GA<sub>3</sub> and sucrose for embryosomatic phase accomplishment of mangosteen callus. The experiment was conducted in In Vitro Culture Laboratory, Faculty of Agriculture, University of Muhammadiyah Yogyakarta from October to December 2014.*

*The study was conducted using an experimental method which arranged in a completely randomized design with factorial treatment design (4x2). First factor was GA<sub>3</sub> with at concentration of 0, 2, 4 and 6 mg/l and second factor was sucrose with composed of two levels, namely 4% and 6%. Each treatment was repeated six times. Parameters observed were the percentage of contamination, the percentage of browning explants, percentage of live explants, callus texture, color callus, the difference callus diameter and the difference of callus weight.*

*The results showed that the best concentration of GA<sub>3</sub> 4 mg/l and the best concentration of sucrose was 6%. The addition of GA<sub>3</sub> and sucrose resulted the percentage of live explants 100%, but the callus had not achieved embryosomatic phase.*

*Keywords: Mangosteen (*Garcinia mangostana* L.), Embryosomatic, GA<sub>3</sub>, Sucrose*