

**PENGARUH INTENSITAS CAHAYA TERHADAP BIOMASSA DAN
KADAR SAPONIN KALUS GINSENG JAWA (*Talinum paniculatum* Gaertn.)
PADA BERBAGAI WAKTU KULTUR**

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Abstract

The aims of this research was to study the effects of light intensity on callus biomass and saponin content of ginseng jawa (*Talinum paniculatum* Gaertn.). Callus induced from leaf explants on solid *Murashige and Skoog* (MS) medium supplemented by 2 mg/L of 2,4-D and 1 mg/L of kinetin. Callus induced by treatment of combination between light intensities 1000, 2000, 4000, 6000 lux, also dark condition and culture period 4, 6, and 8 weeks. Each treatment of combination was repeated 6 times. Retrieval of data were callus biomass (fresh and dry weight) and saponin content. The data of biomass were analyzed by using manova test (significance of 5%). Saponin content was analyzed semi-quantity using Thin Layer Chromatography (TLC). The result showed that the highest average of dry weight (as parameter) obtained at treatment combination 4000 lux light intensity and 8 weeks culture period was 0,0699 gram. Meanwhile the highest saponin content obtained at 4000 lux light intensity and 6 weeks culture period was 58,5 mm²/0,01 gram dry weight of callus and color intensity +4. With the results that light intensities influence on callus biomass and saponin content of ginseng jawa at different culture period.

Keywords: biomass, callus, culture period, light intensity, saponin content,
Talinum paniculatum Gaertn

Pendahuluan

Ginseng jawa merupakan tanaman herba tahunan yang digunakan sebagai bahan baku obat tradisional atau jamu (Hutapea, 1991). Tumbuhan ini sering digunakan sebagai pengganti ginseng korea (*Panax ginseng*) karena harganya relatif lebih murah, mudah diperoleh, dan mudah dibudidayakan.