

ANALYSIS OF TOTAL PHENOLIC CONTENT AND ANTIOXIDANT ACTIVITY TEST OF ORGANICALLY PLANTED BANGUN-BANGUN PLANT (*Coleus Amboinicus*)

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Abstract

Bangun-bangun plant (*Coleus amboinicus*) is considered by some of people of Northern Sumatra as vegetables, as well as herbal medicine for cough, oral ulceration, and blood cleanser for female (during postnatal hemorrhage or in menstrual period). Bangun-bangun plant is suspected containing bio-active compound which can act as antiseptic, antiinflammation, antioxidant. The bio-active substance might be phenolic, or antioxidant. This research is aimed at determining total phenolic content and antioxidant activity which is planted organically with bokashi fertilizer and extract of fermented plant (EFP). Bangun-bangun plant is planted by using a complete random design with 5 treatments, that is 1) bokashi fertilizer + extract of fermented spices, 2) bokashi fertilizer + extract of fermented fruit of mahkota dewa, 3) bokashi fertilizer + EM5, 4) bokashi fertilizer without EFP (control-1), 5) without bokashi and EFP (control-2), and 6) samples from conventional farmers (control-3). Each of treatment is repeated 3 times. Obtained data is statistically analyzed with ANOVA and continued with advance test of DNMRT level 5%.

The result showed that application of organically planted generally gives better results for all analysis compared to control. The highest result for all antioxidant analysis is obtained from the treatment of bokashi fertilizer + extract of fermented spices (RR) and value the was the difference significance of paired to control-3, control-2, and control-1 ($P < 0,05$).

Keywords: bangun-bangun, antioxidant, phenol.

