

GROWTH AND YIELD OF BROCCOLI (*Brassica oleracea* L.) ON VARIETY OF LIQUID ORGANIC FERTILIZER

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ABSTRACT

The purpose of this research is to determine which type of liquid organic fertilizer has the best concentration towards growth and yield. Method of this research using Completely Randomized Block Design (CRBD) single factor. The treatments tested were without liquid organic fertilizers (NPK, KCl, and TSP), liquid organic fertilizers of gamal leaf extract with concentrations of 2.5%, 5%, and 7.5%, liquid organic fertilizers of lamtoro leaf extract with concentrations of 15%, 30%, and 45%, as well as rabbit urine POC with concentrations of 2.5%, 5%, and 7.5%. Parameters observed include plant height (cm), total leaf (sheet), crop formation age (day after planting), fresh weight total (gram), diameter and broccoli flower height (cm), broccoli flower hardness, broccoli flower weight per plant (gram), and broccoli flower weight per block (kg/m^2). The observation data are analyzed using *Analysis of Variance* (ANOVA) at the 5% real level and it uses the *Duncan's Multiple Range Test* (DMRT) multiple distance at the 5% level when there is a significant difference. Based on the research, usage of fertilizer from rabbit urin with concentration of 7,5% deliver best result towards plant growth and development of broccoli flower.

Keywords : *Broccoli, Gamal, Lamtoro, Rabbit Urine, Concentration.*

PERTUMBUHAN DAN HASIL BROKOLI (*Brassica oleracea* L.) PADA BERBAGAI KONSENTRASI PUPUK ORGANIK CAIR

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ABSTRAK

Tujuan penelitian adalah mendapatkan jenis pupuk organik cair dengan konsentrasi yang terbaik dalam meningkatkan pertumbuhan dan hasil brokoli. Metode penelitian menggunakan Rancangan Acak Kelompok Lengkap (RAKL) Faktor Tunggal. Perlakuan yang diujikan yaitu tanpa POC (NPK, KCl, dan TSP), POC ekstrak daun gamal dengan konsentrasi 2,5%, 5%, dan 7,5%, POC ekstrak daun lamtoro dengan konsentrasi 15%, 30%, dan 45%, serta POC urin kelinci dengan konsentrasi 2,5%, 5%, dan 7,5%. Parameter yang diamati antara lain tinggi tanaman (cm), jumlah daun (helai), umur mulai pembentukan crop (HST), bobot segar total tanaman (gram), diameter dan tinggi bunga brokoli (cm), tingkat kekerasan bunga brokoli, bobot bunga brokoli per tanaman (gram), dan bobot bunga brokoli per petak percobaan (kg/m^2). Data pengamatan dianalisis dengan *Analysis of Variance* (ANOVA) pada jenjang nyata 5% dan apabila terdapat beda nyata dilakukan dengan uji jarak berganda *Duncan's Multiple Range Test* (DMRT) pada taraf 5%. Berdasarkan hasil penelitian, penggunaan pupuk dengan jenis POC urin kelinci dengan konsentrasi 7,5% memberikan hasil yang terbaik dalam meningkatkan pertumbuhan dan perkembangan bunga brokoli.

Kata Kunci : *Brokoli, Gamal, Lamtoro, Urin Kelinci, Konsentrasi.*