

**RESPON PERTUMBUHAN DAN HASIL TANAMAN CAISIM  
(*Brassica juncea* L.) DENGAN BERBAGAI KONSENTRASI  
PUPUK ORGANIK CAIR**

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**ABSTRAK**

Penggunaan pupuk organik cair untuk menghasilkan sayuran sehat saat ini terus dikembangkan, salah satu di antaranya dalam budidaya tanaman caisim. Penelitian ini bertujuan untuk mengetahui konsentrasi dari pupuk organik cair buatan pabrik dan pupuk organik cair berbahan urin sapi yang memberikan pengaruh terbaik terhadap pertumbuhan dan hasil tanaman caisim. Penelitian dilaksanakan di Desa Bendungan, Wedomartani, Ngemplak, Sleman pada bulan Mei - Juli 2021 dengan ketinggian tempat 450 mdpl, dengan jenis tanah regosol. Penelitian berupa percobaan lapangan dalam polybag menggunakan Rancangan Acak Kelompok Lengkap (RAKL) terdiri atas 2 faktor. Faktor 1 adalah konsentrasi pupuk organik cair NASA terdiri atas 3 taraf, 0 ml/L, 7,5 ml/L, dan 10 ml/L. Faktor 2 adalah konsentrasi pupuk organik cair urin sapi, terdiri atas 3 taraf, 0 ml/L, 5 ml/L, dan 10 ml/L. Data di analisis menggunakan analisis sidik ragam pada taraf 5% jika ada pengaruh nyata dilanjutkan uji DMRT taraf 5%. Hasil penelitian menunjukkan penggunaan POC NASA dan POC urin sapi memberikan hasil pengaruh nyata pada parameter tinggi tanaman, jumlah daun, dan bobot segar tanaman. Perlakuan POC NASA tidak memberikan hasil yang signifikan sampai konsentrasi 10 ml/L pada semua parameter. Perlakuan konsentrasi terbaik yaitu POC urin sapi 5 ml/L pada parameter tinggi tanaman, jumlah daun, bobot segar, panjang akar, volume akar, dan jumlah akar.

**Kata kunci :** *Caisim, pupuk organik cair merek NASA, pupuk organik cair urin sapi*

**THE GROWTH RESPONSE AND YIELD OF GREENS MUSTARD  
(*Brassica juncea* L.) WITH VARIOUS CONCENTRATIONS  
OF LIQUID ORGANIC FERTILIZERS**

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**ABSTRACT**

*The use of liquid organic fertilizers to produce healthy vegetables is currently being developed, one of them which is in cultivation of caisim plants. The study aims to find out a concentration from liquid organic fertilizer made by factory and liquid organic fertilizer based cow urine that gave the best effect to growth and yield of greens mustard. This research was conducted from May to July 2021 in Bendungan Village, Sleman, Yogyakarta City with a place height of 450 mdpl, regosol soil type. The reseacrh of field experiments in polybag used a Complete Group Randomized Design (RAKL) of 2 factors. The first factor were the concentration of NASA liquid organic fertilizer consisted of 3 levels, 0 ml<sup>-1</sup>, 7.5 ml<sup>-1</sup>, and 10 ml<sup>-1</sup>. The second factor were the concentration of cow urine liquid organic fertilizer, consisted of 3 levels, 0 ml<sup>-1</sup>, 5 ml<sup>-1</sup>, and 10 ml<sup>-1</sup>. The results was analyzed using Anova analysis with a level of 5% and continued DMRT test level 5%. The results showed that NASA liquid organic fertilizer and cow urine liquid organic fertilizer were intersmed with interactions on plant height, number of leaves, and wet weight. The NASA liquid organic fertilizer gave not significant result in concentration up to 10 ml<sup>-1</sup> on all parameters. The cow urine's liquid organic fertilizer concentration of 5 ml<sup>-1</sup> gave the best result at plant height, number of leaves, wet weight, root length, root volume, and number of roots.*

**Keywords:** *Green Mustard, NASA liquid organic fertilizer, cow urin liquid organic fertilizer*