

ABSTRAK

PENGARUH PEMBERIAN PUPUK ORGANIK (CAIR/PADAT) TERHADAP PERTUMBUHAN TANAMAN SAWI PUTIH DI DESA BAUMATA KABUPATEN KUPANG KECAMATAN TAEBENU

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Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pupuk organik cair (POC) berbahan dasar kotoran sapi terhadap pertumbuhan dan hasil tanaman sawi putih (*Brassica chinensis* L.), serta menentukan dosis yang paling efektif. Penelitian dilakukan di Desa Baumata, Kecamatan Taebenu, Kabupaten Kupang dengan menggunakan Rancangan Acak Lengkap (RAL) yang terdiri atas lima perlakuan, yaitu P0 (tanpa POC), P1 (80 ml/polybag), P2 (100 ml/polybag), P3 (120 ml/polybag), dan P4 (140 ml/polybag), masing-masing diulang sebanyak tiga kali. Parameter yang diamati meliputi tinggi tanaman, jumlah daun, lebar daun, panjang daun, dan berat basah tanaman. Data dianalisis menggunakan analisis sidik ragam (ANOVA) dan dilanjutkan dengan Uji Duncan pada taraf 5% ($\alpha = 0,05$). Hasil penelitian menunjukkan bahwa aplikasi POC kotoran sapi memberikan pengaruh nyata terhadap pertumbuhan dan produksi tanaman sawi putih. Perlakuan P1 (80 ml/polybag) menghasilkan pertumbuhan dan produksi tertinggi dengan rata-rata tinggi tanaman 30,38 cm, jumlah daun 9,25 helai, lebar daun 13,70 cm, panjang daun 20,50 cm, dan berat basah tanaman 85,25 gram. Hal ini diduga karena ketersediaan unsur hara nitrogen (N), fosfor (P), dan kalium (K) yang cukup untuk mendukung pertumbuhan tanaman.

Berdasarkan hasil penelitian dapat disimpulkan bahwa pemberian pupuk organik cair kotoran sapi mampu meningkatkan pertumbuhan dan produksi tanaman sawi putih, dengan dosis terbaik sebesar 80 ml/polybag.

Kata Kunci: pupuk organik cair, kotoran sapi, sawi putih, pertumbuhan, produksi

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ABSTRACT

THE EFFECT OF ORGANIC FERTILIZER APPLICATION (LIQUID/SOLID) ON THE GROWTH OF WHITE MUSTARD PLANTS IN DESA BAUMATA KABUPATEN KUPANG KECAMATAN TAEBENU

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This study aims to determine the effect of liquid organic fertilizer (POC) made from cow dung on the growth and yield of Chinese cabbage (*Brassica chinensis* L.), and to determine the most effective dosage. The study was conducted in Baumata Village, Taebenu District, Kupang Regency using a Completely Randomized Design (CRD) consisting of five treatments, namely P0 (without POC), P1 (80 ml/polybag), P2 (100 ml/polybag), P3 (120 ml/polybag), and P4 (140 ml/polybag), each repeated three times. The parameters observed included plant height, number of leaves, leaf width, leaf length, and fresh weight of the plant. Data were analyzed using analysis of variance (ANOVA) and continued with Duncan's Test at the 5% level. The results showed that the application of cow dung POC had a significant effect on the growth and production of Chinese cabbage plants. Treatment P1 (80 ml/polybag) produced the highest growth and yield, with an average plant height of 30.38 cm, leaf number of 9.25, leaf width of 13.70 cm, leaf length of 20.50 cm, and a fresh weight of 85.25 grams. This is likely due to the sufficient availability of nitrogen (N), phosphorus (P), and potassium (K) to support plant growth. Based on the research results, it can be concluded that applying liquid organic fertilizer from cow manure can increase the growth and production of Chinese cabbage plants, with the best dose being 80 ml/polybag.

Keywords : liquid organic fertilizer, cow manure, Chinese cabbage, growth, production

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