

Feby Yola Br Depari (220311100101). Respon Pertumbuhan Dan Hasil Tanaman Pakcoy (*Brassica rapa* L.) Terhadap Variasi Konsentrasi Pupuk Organik Cair Urin Dibimbing Oleh: Erick Yuhardi S.P., M.P dan Prof. Dr. Achmad Amzeri, S.P., M.P

ABSTRAK

Tanaman pakcoy (*Brassica rapa* L.) merupakan komoditas hortikultura yang memiliki nilai gizi dan ekonomi tinggi, namun produktivitasnya masih mengalami fluktuasi sehingga diperlukan inovasi budidaya yang ramah lingkungan dan berkelanjutan. Salah satu alternatif yang dapat digunakan adalah pupuk organik cair (POC) urin kelinci yang mengandung unsur hara makro nitrogen (N), fosfor (P), dan kalium (K). Penelitian ini bertujuan untuk menganalisis kandungan hara POC urin kelinci berdasarkan standar mutu pupuk organik cair dan menentukan konsentrasi optimum terhadap pertumbuhan dan hasil tanaman pakcoy. Penelitian menggunakan Rancangan Acak Lengkap (RAL) nonfaktorial dengan enam taraf perlakuan, yaitu P0 (0 mL/L air), P1 (15 mL/L air), P2 (30 mL/L air), P3 (45 mL/L air), P4 (60 mL/L air), dan P5 (75 mL/L air) dengan empat ulangan. Data dianalisis menggunakan ANOVA dan dilanjutkan uji lanjut menggunakan DMRT taraf 5%. Hasil penelitian menunjukkan bahwa kandungan N-total, P-total, K-total, dan logam berat Pb telah memenuhi sebagian standar mutu POC, namun pH dan C-organik belum memenuhi standar. Pemberian POC urin kelinci berpengaruh nyata terhadap tinggi tanaman, jumlah daun, luas daun, bobot basah, bobot ekonomis, dan bobot kering, tetapi tidak berpengaruh nyata terhadap panjang akar dan indeks panen. Konsentrasi terbaik diperoleh pada perlakuan P5 (75 mL/L air).

Kata kunci: pakcoy, POC urin kelinci, pertumbuhan, hasil tanaman.

ABSTRACT

Pakcoy (*Brassica rapa* L.) is a horticultural crop with high nutritional and economic value; however, its productivity remains fluctuating, requiring environmentally friendly and sustainable cultivation innovations. One alternative is the application of rabbit urine liquid organic fertilizer (LOF), which contains essential macronutrients, namely nitrogen (N), phosphorus (P), and potassium (K). This study aimed to analyze the nutrient content of rabbit urine LOF based on liquid organic fertilizer quality standards and determine the optimum concentration for the growth and yield of pakcoy plants. The study employed a non-factorial Completely Randomized Design (CRD) with six treatment levels: P0 (0 mL/L water), P1 (15 mL/L water), P2 (30 mL/L water), P3 (45 mL/L water), P4 (60 mL/L water), and P5 (75 mL/L water), each replicated four times. Data were analyzed using Analysis of Variance (ANOVA), followed by Duncan's Multiple Range Test (DMRT) at a 5% significance level. The results showed that the contents of total N, total P, total K, and Pb heavy metal met part of the liquid organic fertilizer quality standards, whereas pH and organic carbon content did not meet the required standards. The application of rabbit urine LOF significantly affected plant height, number of leaves, leaf area, fresh weight, economic weight, and dry weight, but had no significant effect on root length and harvest index. The best concentration was obtained in treatment P5 (75 mL/L water).

Keywords: pakcoy, rabbit urine liquid organic fertilizer, growth, yield.

