

ALFAN SYAHRIL. NIM 20.03.111.00094. Respon Pertumbuhan dan Hasil Tanaman Kailan (*Brassica oleracea* L) terhadap Pemberian Pupuk Kascing dan POC Urin Kelinci. Dibawah bimbingan **Ir. Sinar Suryawati, M.Si dan Syaiful Khoiri, S.P., M.Si**

ABSTRAK

Penggunaan pupuk anorganik dalam jangka panjang menyebabkan kadar bahan organik tanah menurun, struktur tanah rusak, dan pencemaran lingkungan. Hal ini karena pupuk anorganik mudah tercuci ke lapisan tanah bawah sehingga tidak dapat terjangkau air. Pupuk kascing dan POC urin kelinci merupakan pupuk organik yang dapat menggantikan pupuk anorganik. Penelitian ini bertujuan untuk mengetahui pengaruh dosis pupuk kascing dan POC urin kelinci terhadap pertumbuhan dan hasil tanaman kailan (*Brassica oleraceae* L.). Penelitian ini dilaksanakan di Kebun dan Laboratorium Program Studi Agroekoteknologi Fakultas Pertanian Universitas Trunojoyo Madura pada bulan Desember 2023 hingga Februari 2024 menggunakan Rancangan Acak Lengkap non faktorial dengan perlakuan dosis pupuk kascing dan POC urin kelinci. Terdapat 7 perlakuan yang diulang sebanyak 4 kali yaitu P0 Kontrol (Tanpa pemberian pupuk kascing dan urin kelinci), P1 (36 g/polybag pupuk kascing + 100 mL POC/L), P2 (72 g/polybag pupuk kascing + 100 mL POC/L), P3 (36 g/polybag pupuk kascing + 200 mL POC/L), P4 (72 g/polybag pupuk kascing + 200 mL POC/L), P5 (36 g/polybag pupuk kascing + 300 mL POC/L), P6 (72 g/polybag pupuk kascing + 300 mL POC/L). Hasil penelitian menunjukkan bahwa perlakuan pemberian kombinasi dosis pupuk kascing dan pupuk organik cair urin kelinci berpengaruh nyata terhadap tinggi tanaman pada umur 14, 21, 28, dan 35 HST, jumlah daun pada umur 7, 14, 21, 28 dan 35 HST serta luas daun, bobot basah tanaman, dan bobot kering tanaman pada umur 35 HST. Perlakuan P6 dengan dosis pupuk kascing 72 g/polybag + 300 ml pupuk organik cair urin kelinci memberikan hasil tertinggi pada parameter tinggi tanaman (15,85 cm), luas daun (527, 97 cm), bobot basah (47,75 g), dan bobot kering (10,40 g) di bandingkan perlakuan lainnya.

Kata Kunci: kailan, kascing, pupuk, pupuk organik cair, pupuk urin kelinci

ALFAN SYAHRIL. NIM 20.03.111.00094. *Growth and Yield Response of Kailan Plants (Brassica oleracea L) to Application of Vermicompost Fertilizer and Rabbit Urine POC. Supervised by Ir. Sinar Suryawati, M.Si and Syaiful Khoiri, S.P., M.Si*

ABSTRACT

Long-term use of inorganic fertilizers causes soil organic matter levels to decrease, soil structure is damaged, and environmental pollution. This is because inorganic fertilizers are easily leached into the lower soil layers so that water cannot reach them. Vermicompost fertilizer and rabbit urine POC are organic fertilizers that can replace inorganic fertilizers. This research aims to determine the effect of doses of vermicompost fertilizer and rabbit urine POC on the growth and yield of kailan plants (*Brassica oleracea* L.). This research was carried out in the Garden and Laboratory of the Agroecotechnology Study Program, Faculty of Agriculture, Trunojoyo University, Madura from December 2023 to February 2024 using a non-factorial Completely Randomized Design with treatment with vermicompost fertilizer doses and rabbit urine POC. There were 7 treatments which were repeated 4 times, namely P0 Control (Without administration of vermicompost fertilizer and rabbit urine), P1 (36 g/polybag vermicompost + 100 mL POC/L), P2 (72 g/polybag vermicompost + 100 mL POC/L), P3 (36 g/polybag vermicompost + 200 mL POC/L), P4 (72 g/polybag vermicompost + 200 mL POC/L), P5 (36 g/polybag vermicompost + 300 mL POC/L), P6 (72 g/polybag vermicompost + 300 mL POC/L). The results of the research showed that the combination of doses of vermicompost fertilizer and rabbit urine liquid organic fertilizer had a significant effect on plant height at 14, 21, 28 and 35 HST, number of leaves at 7, 14, 21, 28 and 35 HST and leaf area, plant wet weight, and plant dry weight at 35 HST. P6 treatment with a vermicompost dose of 72 g/polybag + 300 ml of rabbit urine liquid organic fertilizer gave the highest results in the parameters of plant height (15.85 cm), leaf area (527, 97 cm), wet weight (47.75 g), and dry weight (10.40 g) compared to other treatments.

Keywords: *fertilizer, kailan, liquid organic fertilizer, rabbit urin fertilizer, vermicompost*