

ABSTRAK

PENGARUH KOMBINASI PUPUK NPK DAN PUPUK KANDANG AYAM FERMENTASI TERHADAP PERTUMBUHAN DAN HASIL TANAMAN *BABY MENTIMUN* (*Cucumis sativus* L.) PADA LAHAN SAWAH

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Budidaya *baby* mentimun pada lahan sawah setelah pertanaman padi memerlukan pengelolaan pemupukan yang tepat agar produktivitas tanaman dan kesuburan tanah tetap terjaga. Salah satu pendekatan yang sesuai dengan prinsip *Good Agricultural Practices* (GAP) adalah pemupukan berimbang melalui kombinasi pupuk anorganik dan pupuk organik hasil fermentasi. Pupuk NPK menyediakan hara makro yang lebih cepat tersedia, sedangkan pupuk kandang ayam fermentasi berperan sebagai sumber bahan organik dan hara yang dilepaskan bertahap. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi pupuk NPK dan pupuk kandang ayam fermentasi terhadap pertumbuhan dan hasil *baby* mentimun pada lahan sawah. Penelitian dilaksanakan di Desa Linggajati, Kecamatan Sukaratu, Kabupaten Tasikmalaya, pada bulan Februari sampai April 2026. Penelitian menggunakan Rancangan Acak Kelompok (RAK) dengan 6 perlakuan dan 4 ulangan, yaitu P1: NPK 300 kg/ha, P2: pupuk kandang ayam fermentasi 20 t/ha, P3: pupuk kandang ayam fermentasi 10 t/ha + NPK 300 kg/ha, P4: pupuk kandang ayam fermentasi 20 t/ha + NPK 300 kg/ha, P5: pupuk kandang ayam fermentasi 10 t/ha + NPK 200 kg/ha, dan P6: pupuk kandang ayam fermentasi 20 t/ha + NPK 200 kg/ha. Hasil analisis sidik ragam menunjukkan kombinasi pupuk NPK dan pupuk kandang ayam fermentasi tidak berpengaruh nyata terhadap tinggi tanaman, jumlah daun, dan diameter batang pada umur 7 HST, tetapi berpengaruh nyata terhadap tinggi tanaman, jumlah daun, dan diameter batang pada umur 14 dan 21 HST, serta diameter buah, panjang buah, jumlah buah per tanaman, bobot buah per tanaman, bobot buah per petak, dan bobot buah konversi ke hektar. Perlakuan NPK 300 kg/ha + pupuk kandang ayam fermentasi 20 t/ha memberikan hasil terbaik dengan diameter buah 38,56 mm, panjang buah 14,19 cm, jumlah buah 18,15 buah per tanaman, bobot buah 2,10 kg per tanaman, bobot buah 21,01 kg per petak, dan hasil konversi 61,12 t/ha.

Kata kunci: *baby* mentimun, pupuk kandang ayam fermentasi, pupuk NPK

ABSTRACT

EFFECT OF THE COMBINATION OF NPK FERTILIZER AND FERMENTED CHICKEN MANURE ON THE GROWTH AND YIELD OF *BABY CUCUMBER (Cucumis sativus L.) ON PADDY FIELD*

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Baby cucumber cultivation on paddy fields after rice planting requires proper fertilization management to maintain crop productivity and soil fertility. One approach in accordance with the principles of *Good Agricultural Practices* (GAP) is balanced fertilization through a combination of fermented organic fertilizer and inorganic fertilizer. NPK fertilizers provide more readily available macronutrients, whereas fermented chicken manure serves as a source of organic matter and nutrients that are released gradually. This study aimed to determine the effect of the combination of NPK fertilizer and fermented chicken manure on the growth and yield of *baby* cucumber grown on paddy fields. The research was conducted in Linggajati Sub-district, Sukaratu District, Tasikmalaya Regency, from February to April 2026. The study used a Randomized Block Design (RBD) with six treatments and four replications, namely P1: NPK 300 kg/ha, P2: fermented chicken manure 20 t/ha, P3: fermented chicken manure 10 t/ha + NPK 300 kg/ha, P4: fermented chicken manure 20 t/ha + NPK 300 kg/ha, P5: fermented chicken manure 10 t/ha + NPK 200 kg/ha, and P6: fermented chicken manure 20 t/ha + NPK 200 kg/ha. The analysis of variance showed that the combination of NPK fertilizer and fermented chicken manure had no significant effect on plant height, number of leaves, and stem diameter at 7 DAP, but had a significant effect on plant height, number of leaves, and stem diameter at 14 and 21 days after planting, as well as fruit diameter, fruit length, number of fruits per plant, fruit weight per plant, fruit weight per plot, and converted yield per hectare. The treatment of NPK 300 kg/ha + fermented chicken manure 20 t/ha produced the best results, with fruit diameter of 38.56 mm, fruit length of 14.19 cm, number of fruits of 18.15 fruits per plant, fruit weight of 2.10 kg per plant, fruit weight of 21.01 kg per plot, and converted yield of 61.12 t/ha.

Keywords: *baby* cucumber, fermented chicken manure, NPK fertilizer.