

PENGARUH CARA PEMUPUKAN DAN LAMA FERMENTASI POC AIR CUCIAN BERAS TERHADAP PERTUMBUHAN DAN HASIL TANAMAN TOMAT (*Solanum lycopersicum* L.)

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ABSTRAK

Pemenuhan hara berpengaruh terhadap pertumbuhan dan hasil tanaman. Kebutuhan hara dipenuhi melalui pemupukan dengan pupuk anorganik maupun organik seperti air cucian beras. Efektifitas pemupukan ditentukan jenis pupuk, kandungan hara, dan cara pemupukan. Tujuan penelitian ini untuk mendapatkan cara pemupukan dan lama fermentasi air cucian beras yang efektif untuk pertumbuhan dan hasil tanaman tomat. Metode penelitian berupa percobaan lapangan menggunakan Rancangan Acak Kelompok Lengkap (RAKL) dengan 2 faktor. Faktor pertama cara pemupukan terdiri 3 taraf : dikocor, kocor + semprot, disemprot. Faktor kedua lama fermentasi POC air cucian beras terdiri 3 taraf : 0 hari (tidak difermentasi), fermentasi 7 hari, dan 14 hari. Data dianalisis menggunakan ANOVA 5%, dilanjutkan Uji DMRT 5%. Hasil penelitian menunjukkan kombinasi kedua perlakuan menghasilkan jumlah buah, kekerasan buah dan bobot buah berbeda nyata dibanding kontrol (tanpa POC). Terdapat interaksi perlakuan kocor + semprot dengan POC fermentasi 7 hari pada bobot buah per petak dan per hektar. Perlakuan cara pemupukan kocor + semprot menghasilkan jumlah buah, bobot buah dan kekerasan buah nyata lebih tinggi. POC air cucian beras fermentasi 7 hari menghasilkan bobot buah dan kekerasan buah nyata lebih tinggi. POC air cucian beras fermentasi 0 dan 7 hari memberikan hasil tertinggi pada jumlah buah.

Kata Kunci : tomat, cara pemupukan, fermentasi air cucian beras

**THE EFFECT OF FERTILIZATION METHODS AND
FERMENTATION TIME OF RICE WASHING WATER LOF ON
THE GROWTH AND YIELD OF TOMATO PLANTS (*Solanum
lycopersicum* L.)**

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ABSTRACT

Nutrient fulfillment affects plant growth and yield. Nutrient requirements are met through fertilization with inorganic and organic fertilizers such as rice washing water. The effectiveness of fertilization is determined by the type of fertilizer, nutrient content, and fertilization method. The purpose of this study was to determine the effective fertilization method and fermentation period of rice washing water for tomato plant growth and yield. The research method was a field experiment using a completely randomized block design (CRBD) with two factors. The first factor was the fertilization method, consisting of three levels: drip irrigation, drip irrigation + spraying, and spraying. The second factor was the fermentation period of rice washing water, consisting of three levels: 0 days (no fermentation), 7 days of fermentation, and 14 days of fermentation. The data were analyzed using 5% ANOVA, followed by 5% DMRT test. The results showed that the combination of the two treatments produced a significant difference in fruit number, fruit hardness, and fruit weight compared to the control (without LOF). There was an interaction between the drip + spray treatment and 7-day fermented LOF on fruit weight per plot and per hectare. The drip + spray fertilization treatment produced significantly higher fruit yield, fruit weight, and fruit hardness. Fermented rice washing water LOF for 7 days produced significantly higher fruit weight and fruit hardness. Fermented rice washing water LOF for 0 and 7 days produced the highest fruit yield.

Keywords: *tomato, application method, fermentation of rice washing water*