

## ABSTRAK

### **Pengaruh Penggunaan Pupuk Organik Cair (Limbah Sayur Dan Buah) Terhadap Pertumbuhan Dan Hasil Tanaman Tomat (*Lycopersicum Esculentum*)**

**Bouka, E)\***

**Bullu, N. I)\*\***

**Nge, S. T)\*\***

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Tomat (*Lycopersicum esculentum*) merupakan tanaman hortikultura yang sangat banyak manfaatnya, Manfaat tanaman tomat untuk kesehatan tubuh manusia diantaranya, menghilangkan jerawat, menghaluskan kulit, mengobati wasir, menurunkan darah tinggi, mencegah penyakit jantung, dan menangkal sel-sel kanker. Penelitian ini bertujuan Untuk mengetahui respon penggunaan pupuk organik cair (limbah sayur dan buah) terhadap pertumbuhan dan hasil tanaman tomat dan mengetahui Perlakuan manakah yang akan memberikan respon terbaik pertumbuhan dan hasil tanaman tomat. Penelitian ini merupakan penelitian eksperimental yang dirancang menggunakan metode Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 4 ulangan. Teknik pengumpulan data dilakukan 7 hari sekali setelah tanaman tomat muncul diatas tanah, dengan para meter yang diamati adalah tinggi tanaman (cm), jumlah daun (helai), diameter batang (cm), umur berbunga, jumlah buah dan berat bobot buah (g). Data yang diperoleh dari pertumbuhan tinggi tanaman, jumlah daun, diameter batang pada pengamatan terakhir dan hasil produksi tanaman tomat dianalisis dengan menggunakan sidik ragam (Anova) untuk mengetahui ada tidaknya pengaruh perlakuan dan jika terdapat pengaruh perlakuan yang nyata atau sangat nyata akan dilanjutkan dengan uji Duncan pada taraf 5% untuk mengetahui perbedaan antar pasangan perlakuan yang dibandingkan (Sastrosupadi, 2002). Hasil penelitian menunjukkan bahwa pemberian POC limbah sayur dan buah berpengaruh sangat nyata terhadap pertumbuhan dan hasil tanaman tomat. Pemberian pupuk organik cair limbah sayur dan buah pepaya dengan konsentrasi 18% memberikan hasil yang optimum terhadap pertumbuhan dan hasil tanaman tomat (*lycopersicum esculentum*) dimana rata-rata tinggi tanaman 63,2 cm, jumlah daun 13 helai, diameter batang 2,6 cm, jumlah buah 8,5625 buah dan berat bobot buah 86.69 gram

Kata kunci: *POC, limbah sayur dan buah, tanaman tomat*

Keterangan :

\*) Peneliti

\*\*\*) Pembimbing

## ABSTRACT

### Effect Of Using Liquid Organic Fertilizer (Vegetable And Fruit Waste) On The Growth And Yield Of Tomato Plants (*Lycopersicum Esculentum*)

Bouka, E)\*

Bullu,N. I)\*\*

Nge, S. T)\*\*

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Tomato (*Lycopersicum esculentum*) is a horticultural plant that has many benefits. The benefits of tomato plants for the health of the human body include eliminating acne, smoothing the skin, treating hemorrhoids, lowering high blood pressure, preventing heart disease, and warding off cancer cells. This study aims to determine the response to the use of liquid organic fertilizer (vegetable and fruit waste) on the growth and yield of tomato plants and to determine which treatment will give the best response to the growth and yield of tomato plants. This study was an experimental study designed using a completely randomized design (CRD) with 4 treatments and 4 replications. The data collection technique was carried out every 7 days after the tomato plants appeared on the ground, with the parameters observed being plant height (cm), number of leaves (strands), stem diameter (cm), flowering age, fruit number and fruit weight (g). . The data obtained from the growth of plant height, number of leaves, stem diameter at the last observation and production yield of tomato plants were analyzed using variance (Anova) to determine whether there was a treatment effect and if there was a real or very significant treatment effect it would be followed by Duncan's test. at the 5% level to determine differences between treatment pairs being compared (Sastrosupadi, 2002). The results showed that the administration of POC from vegetable and fruit waste had a very significant effect on the growth and yield of tomato plants. The application of liquid organic fertilizer from papaya vegetable and fruit waste with a concentration of 18% gave optimum results for the growth and yield of tomato plants (*Lycopersicum esculentum*) where the average plant height was 63.2 cm, the number of leaves was 13, the stem diameter was 2.6 cm, number of fruit 8.5625 fruit and fruit weight 86.69 gram

Keywords: POC, vegetable and fruit waste,tomato plants

Information :

\*) Researchers

\*\*\*) Advisor