

**PENGARUH PEMBERIAN LIMBAH CAIR TAHU TERHADAP
PERTUMBUHAN DAN KADAR VITAMIN C TANAMAN
BAYAM (*Amaranthus tricolor* L.)**

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ABSTRAK

Bayam (*Amaranthus tricolor* L.) merupakan jenis sayuran yang mengandung gizi tinggi. Bayam memerlukan unsur hara untuk memenuhi kebutuhan pertumbuhannya. Unsur hara, salah satunya dapat diperoleh dari limbah cair tahu. Limbah cair tahu mengandung N, P, K, Ca, Mg dan C organik yang berpotensi untuk meningkatkan kesuburan tanah sehingga dapat meningkatkan pertumbuhan tanaman. Telah dilakukan penelitian dengan tujuan untuk mengetahui pengaruh pemberian limbah cair tahu terhadap pertumbuhan dan kadar vitamin C tanaman bayam. Penelitian ini dilaksanakan pada bulan Januari sampai Agustus 2017 di kebun terpadu fakultas Sains dan Teknologi UIN Sunan Gunung Djati Bandung. Penelitian ini merupakan penelitian eksperimental menggunakan rancangan acak lengkap (RAL) dengan 5 ulangan. Terdapat 7 perlakuan dalam penelitian ini yaitu kelompok kontrol tanpa perlakuan, kelompok kontrol pupuk NPK, limbah tahu cair 20%, 25%, 30%, 35% dan 40%. Analisis data dilakukan dengan *One-way ANOVA* dan uji lanjutan beda nyata terkecil pada taraf signifikansi 5% ($\alpha = 0,05$). Hasil penelitian menunjukkan bahwa pemberian limbah cair tahu dengan konsentrasi 40% (C_5) memberikan hasil terbaik terhadap rata-rata tinggi tanaman bayam yaitu sebesar 35,45 cm, rata-rata jumlah daun sebesar 22,31 helai, rata-rata panjang akar sebesar 14,12 cm, rata-rata bobot basah sebesar 39,88 g dan rata-rata bobot kering tanaman bayam sebesar 14,58 g. Kadar vitamin C tanaman bayam pada perlakuan C_5 adalah sebesar 0,035% dan merupakan kadar tertinggi dibandingkan dengan perlakuan kontrol.

Kata kunci: *Bayam, limbah tahu cair, vitamin C, pertumbuhan*

THE EFFECT OF GIVING TOFU WASTE LIQUID ON THE GROWTH AND VITAMIN C OF SPINACH PLANT

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ABSTRACT

Spinach (*Amaranthus tricolor* L.) is a type of leaf vegetables that contain high nutritional value. In its growth, spinach requires nutrients to increase its quantity and quality. One nutrient elements of can be obtained from liquid tofu waste. Waste knows contain N, P, K, Ca, Mg and C organic that have the potential to increase soil fertility so as to increase plant growth. Research has been conducted with the aim to know the effect of liquid waste to the plant's height, number of leaves, root length, wet weight, dry weight and vitamin C of spinach. This reseach was conducted from January until August 2017 in integrated gardens of Science and Technology Faculty of UIN Sunan Gunung Djati Bandung by utilizing liquid tofu waste as organic fertilizer. This study used an experimental study using a Completely Randomized Design (CRD) with 5 replications. There were 7 treatments in study: control group without treatment, syntetic fertilizer control group, liquid tofu waste 20%, 25%, 30%, 35% and 40%. Data was analyzed by using *One-way ANOVA* and least significant difference test continued at a significant level of 5% ($\alpha = 0,05$). The results showed that the liquid waste out with a concentration of 40% (C_5) gave the best result of the high average spinach plant in the amount 35,45 cm, the average number of leaves are 22,31, average root length by 14,12 cm, the average wet weight of 39, 88 g and the average dry weight of spinach plant is 14,58 g. Vitamin C content of spinach crops in treatmen C_5 is equal to 0,035% and is the heighest level compared to other treatments.

Keyword: *Spinach, tofu waste liquid, vitamin C, growth*