

EXECUTIVE SUMMARY

Sopiah Ma'ani, 2021. “Pengaruh Pemberian Pupuk Organik Cair (POC) Limbah Air Cucian Beras Terhadap Pertumbuhan Tanaman Sawi Hijau (*Brassica juncea* L)”. Skripsi. Program Studi Pendidikan Biologi. Fakultas Keguruan dan Ilmu Pendidikan, Universitas Bung Hatta.

Oleh : **Sopiah Ma'ani**

Pembimbing : **Drs. Nawir Muhar, M.Si**

Tujuan penelitian ini untuk mengetahui pengaruh konsentrasi pupuk organik cair (POC) limbah air cucian beras terhadap pertumbuhan tanaman sawi hijau (*Brassica juncea* L.). Penelitian ini dilaksanakan pada bulan Februari – April 2021 di Laboratorium Biologi dan Rumah Kaca Kampus Proklamator II, Universitas Bung Hatta, Padang.

Metode yang digunakan dalam penelitian adalah metode eksperimen dengan menggunakan Rancangan Acak Lengkap (RAL) yang terdiri dari 4 perlakuan 3 kali ulangan. Masing – masing perlakuan yaitu P0 Kontrol (tanpa pemberian POC air cucian beras), P1 (5 ml POC air cucian beras / 0,5 L air / hari), P2 (15 ml POC air cucian beras / 0,5 L air / hari), dan P3 (25 ml POC air cucian beras / 0,5 L air / hari). Parameter yang diamati yaitu percepatan persemaian, tinggi tanaman, jumlah daun (helai), dan panjang daun. Data yang diperoleh diolah menggunakan Analisis of Variance (ANOVA) pada taraf kepercayaan 95%.

Data hasil penelitian menunjukkan bahwa pemberian pupuk organik cair (POC) limbah air cucian beras pada tanaman sawi hijau (*Brassica juncea* L.) dengan konsentrasi berbeda memberikan pengaruh terhadap parameter pertumbuhan tinggi tanaman dan jumlah daun (helai), namun tidak berpengaruh terhadap parameter percepatan persemaian dan panjang daun. Dari perlakuan didapat rerata parameter percepatan persemaian terjadi pada 3 HST (Hari Setelah Tanam) berlaku terhadap setiap perlakuan dan ulangan selama penelitian. Pertumbuhan tertinggi terdapat pada perlakuan kontrol (P0) yaitu $(16,36 \pm 1,48)$ cm dan rerata terendah terdapat pada perlakuan (P3) 25 ml/L yaitu $(11,50 \pm 1,25)$ cm). Pertumbuhan jumlah daun paling banyak terdapat pada perlakuan kontrol (P0) yaitu $(6,66 \pm 0,57)$ cm tidak berbeda nyata dengan perlakuan (P2) 15 ml/L dan rerata jumlah daun terendah terdapat pada perlakuan (P3) 25 ml/L yaitu $(5,00 \pm 1,00)$ cm). Pertumbuhan panjang daun tertinggi terdapat pada perlakuan kontrol (P0) yaitu $(5,93 \pm 1,65)$ cm dan rerata terendah terdapat pada perlakuan (P3) 25 ml/L yaitu $(3,80 \pm 0,70)$ cm).

Kata kunci : Pupuk organik cair (POC), air cucian beras, sawi hijau.

EXECUTIVE SUMMARY

Sopiah Ma'ani, 2021. "The Effect of Liquid Organic Fertilizer (POC) Waste Rice Washing on the Growth of Mustard Greens (*Brassica juncea* L)". Essay. Biology Education Study Program. Faculty of Teacher Training and Education, Bung Hatta University.

By : **Sopiah Ma'ani**

Advisor : **Drs. Nawir Muhar, M.Si**

The purpose of this study was to determine the effect of the concentration of liquid organic fertilizer (POC) of rice washing water waste on the growth of mustard greens (*Brassica juncea* L.). This research was conducted in February – April 2021 at the Biology Laboratory and Greenhouse of the Proclaimer II Campus, Bung Hatta University, Padang.

The method used in this study is an experimental method using a Completely Randomized Design (CRD) which consists of 4 treatments and 3 replications. Each treatment is P0 Control (without giving POC rice washing water), P1 (5 ml POC rice washing water / 0.5 L water / day), P2 (15 ml POC rice washing water / 0.5 L water / day), and P3 (25 ml POC of rice washing water / 0.5 L of water / day). Parameters observed were nursery acceleration, plant height, number of leaves (strands), and leaf length. The data obtained were processed using Analysis of Variance (ANOVA) at a 95% confidence level.

The research data showed that the application of liquid organic fertilizer (POC) to rice washing water waste on mustard greens (*Brassica juncea* L.) with different concentrations gave an effect on the parameters of plant height growth and number of leaves (strands), but did not affect the parameters. nursery acceleration and leaf length. From the treatment, it was found that the average nursery acceleration parameter occurred at 3 DAP (Days After Planting) applicable to each treatment and replication during the study. The highest growth was found in the control treatment (P0) (16.36 ± 1.48 cm) and the lowest average was found in the treatment (P3) 25 ml/L (11.50 ± 1.25 cm). The highest number of leaves growth was found in the control treatment (P0), namely (6.66 ± 0.57 cm) not significantly different from the treatment (P2) 15 ml/L and the lowest mean number of leaves was found in the treatment (P3) 25 ml/L. that is (5.00 ± 1.00 cm). The highest leaf length growth was found in the control treatment (P0) (5.93 ± 1.65 cm) and the lowest average was found in the 25 ml/L treatment (P3) (3.80 ± 0.70 cm).

Keywords : Liquid Organic Fertilizer (POC), Rice Wash Water, Mustard Greens.