

**PERBEDAAN PERSENTASE SERANGAN PENYAKIT LAYU *FUSARIUM*
DAN PERTUMBUHAN VEGETATIF TANAMAN TERONG UNGU
AKIBAT PEMBERIAN VARIASI KONSENTRASI JAMUR
Trichoderma sp. DENGAN MEDIUM BERAS**

Oleh

Dewi Afon Nita, NIM. 2013091005

**Program Studi Biologi, Jurusan Biolgi dan Perikanan Kelautan,
Fakultas Matematika dan Ilmu Pengetahuan Alam,
Universitas Pendidikan Ganesha**

ABSTRAK

Terong ungu merupakan tanaman hortikultura yang sudah banyak tersebar di Indonesia. Kendala yang dihadapi petani adanya serangan organisme pengganggu tumbuhan yaitu penyakit layu *Fusarium*. Salah satu alternatif pengendalian dengan menggunakan *Trihoderma* sp. Penelitian ini memiliki tujuan mengetahui perbedaan persentase serangan penyakit layu *Fusarium* dan pertumbuhan vegetatif pada tanaman terong ungu setelah aplikasi *Trichoderma* sp.. Penelitian dilakukan pada 2 tempat berbeda, yakni pertama perbanyakan jamur *Trichoderma* sp. dengan medium beras di Laboratorium Agensi Hayati / Pestisida Nabati, Biaung. Kedua penanaman bibit terong ungu dan aplikasi biofungisida dilakukan di *Green House* Jalan Tegal Harum, Gang Sakura, Biaung, Kecamatan Denpasar Timur, Kota Denpasar, Bali, dari bulan Juli-September 2024. Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 6 perlakuan dan 5 ulangan. Perlakuan tersebut adalah konsentrasi *Trichoderma* sp. 0%, konsentrasi *Trichoderma* sp. 10%, konsentrasi *Trichoderma* sp. 20%, konsentrasi *Trichoderma* sp. 30%, konsentrasi *Trichoderma* sp. 40% dan konsentrasi *Trichoderma* sp. 50%. Data dianalisis menggunakan *One Way Anova* dan dilanjutkan menggunakan uji *Mann-Whitney* pada taraf signifikan 5%. Berdasarkan uji *Mann-Whitney* konsentrasi *Trichoderma* sp. mengakibatkan perbedaan signifikan terhadap persentase serangan penyakit layu *Fusarium* dan jumlah daun, namun tidak menyebabkan perbedaan yang signifikan terhadap tinggi tanaman pada tanaman terong ungu. Hasil penelitian ini disimpulkan bahwa konsentrasi *Trichoderma* sp. 50% paling efektif yang mampu menghasilkan rerata persentase serangan penyakit layu *Fusarium* paling rendah yaitu $4,00 \pm 6,22\%$.

Kata Kunci : *Fusarium*, *Trichoderma* sp., terong ungu, pertumbuhan vegetatif, medium beras.

**DIFFERENCES IN THE PERCENTAGE OF *FUSARIUM* WILT
ATTACKS AND VEGETATIVE GROWTH OF PURPLE EGGPLANT
PLANTS DUE TO VARIATIONS IN THE CONCENTRATION OF THE
FUNGI *Trichoderma* sp. WITH RICE MEDIUM**

By

Dewi Afon Nita, NIM. 2013091005

**Biology Study Program, Department of Marine Biology and Fisheries,
Faculty of Mathematics and Natural Sciences,Ganesha University of
Education**

ABSTRACT

Purple eggplant is a horticultural plant that is widely grown in Indonesia. One of the problems faced by farmers is the attack of Fusarium wilt disease. One way to control this is by using *Trichoderma* sp. This research aims to find out the difference in *Fusarium* wilt disease attack and the growth of purple eggplant plants after applying *Trichoderma* sp. The study was carried out in two different places. First, *Trichoderma* sp. was grown using rice in the Biological Agent / Plant-based Pesticide Laboratory in Biaung. Second, purple eggplant seedlings were planted, and the biofungicide was applied in a greenhouse at Jalan Tegal Harum, Gang Sakura, Biaung, East Denpasar, Denpasar City, Bali, from July to September 2024. The experiment used a Completely Randomized Design (CRD) with 6 treatments and 5 repetitions. The treatments were: 0%, 10%, 20%, 30%, 40%, and 50% *Trichoderma* sp. concentrations. The data were analyzed using *One-Way ANOVA* and *Mann-Whitney* test at a 5% significance level. The *Mann-Whitney* test showed that the concentration of *Trichoderma* sp. caused a significant difference in the percentage of *Fusarium* wilt disease attack and the number of leaves, but it did not cause a significant difference in the plant height of purple eggplants. The results of this study showed that a 50% concentration of *Trichoderma* sp. was the most effective in reducing the *Fusarium* wilt disease attack, with an average of $4.00 \pm 6.22\%$.

Keywords: *Fusarium*, *Trichoderma* sp., *purple eggplant*, *growth*, *rice medium*.