ABSTRAK

Hilman Hendriawan. 2025. Respons Tanaman Seledri (*Apium Graveolens* L.) Terhadap Berbagai Dosis Ekoenzim. Di bawah bimbingan Liberty Chaidir dan Jajang Supriatna.

Tanaman seledri (*Apium graveolens* L.) merupakan komoditas hortikultura berumur pendek yang banyak dimanfaatkan bagian tajuknya sebagai bahan pangan dan obat. Upaya peningkatan pertumbuhan dan hasil tanaman dapat dilakukan melalui pemupukan organik cair, salah satunya ekoenzim yang mengandung unsur hara makro-mikro dan enzim aktif hasil fermentasi biomassa organik. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian ekoenzim terhadap pertumbuhan dan hasil tanaman seledri serta menentukan dosis optimum yang mampu menghasilkan performa tanaman terbaik. Penelitian dilaksanakan pada bulan Oktober 2024 sampai dengan Maret 2025 di Lahan Kampus II UIN Sunan Gunung Djati Bandung. Rancangan percobaan menggunakan Rancangan Acak Kelompok (RAK) satu faktor dengan lima perlakuan dosis ekoenzim, yaitu P0 (kontrol), P1 (1 ml/L), P2 (2 ml/L), P3 (3 ml/L), dan P4 (4 ml/L). Setiap perlakuan diulang empat kali dengan tiga tanaman per ulangan sehingga diperoleh 60 satuan percobaan. Parameter yang diamati meliputi tinggi tanaman, jumlah anakan, berat basah, berat kering, nisbah pupus akar, dan indeks panen. Hasil penelitian menunjukkan bahwa pemberian ekoenzim berpengaruh nyata terhadap tinggi tanaman, berat basah, dan berat kering, namun tidak berpengaruh nyata terhadap jumlah anakan, nisbah pupus akar, dan indeks panen. Dosis 3 ml/L (P3) memberikan respons terbaik dengan rata-rata tinggi tanaman 19,44 cm, berat basah 404,34 g, dan berat kering 69 g. Dosis tertinggi (P4) menunjukkan penurunan hasil dibandingkan P3, namun tetap lebih tinggi daripada kontrol. Dengan demikian, dosis 3 ml/L direkomendasikan sebagai dosis optimal untuk meningkatkan pertumbuhan vegetatif dan hasil biomassa tanaman seledri.

Kata kunci: Dosis, Ekoenzim, Hasil, Pertumbuhan, Seledri

ABSTRACT

Hilman Hendriawan. 2025. Response of Celery (*Apium graveolens* L.) to Various Doses of Eco Enzyme. Supervised by Liberty Chaidir and Jajang Supriatna.

Celery (*Apium graveolens* L.) is a short-lived horticultural crop whose foliage is widely utilized as food and medicinal material. Increasing its growth and yield can be achieved through the application of liquid organic fertilizers, one of which is eco-enzyme—a nutrient-rich solution containing macro- and micronutrients as well as active enzymes derived from the fermentation of organic biomass. This study aimed to determine the effect of eco-enzyme application on the growth and yield of celery and to identify the optimal dose capable of producing the best plant performance. The research was conducted from October 2024 to March 2025 at the Field Area of Campus II, Sunan Gunung Djati State Islamic University Bandung. The experiment employed a Randomized Block Design (RBD) with a single factor consisting of five eco-enzyme treatments: P0 (control), P1 (1 ml/L), P2 (2 ml/L), P3 (3 ml/L), and P4 (4 ml/L). Each treatment was replicated four times with three plants per replication, resulting in 60 experimental units. Observed parameters included plant height, number of tillers, fresh weight, dry weight, shoot-root ratio, and harvest index. The results showed that eco-enzyme application significantly affected plant height, fresh weight, and dry weight, but had no significant effect on the number of tillers, shoot-root ratio, and harvest index. The 3 ml/L dose (P3) produced the best response, with an average plant height of 19.44 cm, fresh weight of 404.34 g, and dry weight of 69 g. The highest dose (P4) resulted in a decrease compared to P3, although still higher than the control. Therefore, a dose of 3 ml/L is recommended as the optimal concentration for enhancing vegetative growth and biomass production in celery plants.

Keywords: Celery, Dose, Eco-enzyme, Growth, Yield