Pengaruh Pupuk Kandang dan EM4 Terhadap Biomassa dan Kandungan Senyawa Limonen Tanaman Seledri (*Apium Graveolens* L.)

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Intisari

Indonesia memiliki banyak sumber daya alam salah satunya adalah minyak atsiri dan diantara tumbuhan penghasil minyak atsiri adalah tanaman seledri. Kandungan terbesar dalam minyak seledri adalah limonen yang dapat dimanfaatkan untuk melancarkan peredaran darah, meredakan radang tenggorokan dan batuk, serta menghambat sel kanker. Penelitian ini bertujuan untuk mengetahui pengaruh pupuk kandang dan EM4 terhadap biomassa dan kandungan senyawa limonen tanaman seledri. Penelitian ini dilaksanakan di Sleman, Yogyakarta pada bulan Juli 2020-Oktober 2020. Penelitian ini menggunakan metode Rancangan Acak Lengkap (RAL) pola faktorial dua faktor. Faktor pertama dosis pupuk kandang ayam (P) dengan 3 taraf dosis yaitu P0 (0 g/kg), P1 (50 g/kg), P2 (100g/kg). Faktor kedua dosis EM4 (E) dengan taraf 3 dosis yaitu E0 (0 cc/kg), E1 (10 cc/kg), E2 (20 cc/kg). Dengan demikian diperoleh 9 kombinasi perlakuan dengan setiap perlakuan diulang 3 kali. Hasil perlakuan pupuk kandang dan EM4 terhadap berat basah tanaman seledri tertinggi yaitu E2P2 52,50g. Hasil perlakuan pupuk kandang dan EM4 terhadap kandungan senyawa limonen tanaman seledri memiliki luasan area tertinggi yaitu E2P2 262.979. Hasil tersebut menunjukkan bahwa perlakuan pemberian pupuk kandang dan EM4 dapat meningkatkan biomassa dan luasan area senyawa limonen tanaman seledri.

Kata kunci: Pupuk kandang ayam, EM4, Limonen, Minyak Atsiri, Seledri

Effect of Manure and EM4 on Biomass and Limonene Compound Content of Celery (*Apium graveolens* L.)

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Abstract

Indonesia has many natural resources, such as essential oil, and among the oil-producing plants is celery. The greatest content in celery essential oil is limonene compound that can be used to improve blood circulation, relieving sore throat and cough, as well as inhibit cancer cells. The objective of this research was to study the effect of manure and EM4 on the biomass and limonene compound content of celery. The experiment was conducted in Sleman Yogyakarta from July 2020 until September 2020. This study used a completely randomized design (CRD), consisting of two factors. The first factor was chicken manure (P) with 3 levels, namely P0 (0 g/kg), P1 (50 g/kg), P2 (100g/kg). The second factor was EM4 (E) with 3 levels, namely E0 (0 cc/kg), E1 (10 cc/kg), E2 (20 cc/kg). Thus 9 treatment combinations were obtained with each treatment was repeated 3 times. The highest results of manure and EM4 treatment on the wet weight of celery plants were E2P2 52.50g. The highest results of manure and EM4 on the area content of limonene compound of celery plants were E2P2 262979. These results showed that the treatment of manure and EM4 can increase the biomass and area content of the limonene compound of celery plants.

Keywords: *Chicken Manure, EM4, Limonene, Essential Oil, Celery*