

IDA SUPIANTI SIRAIT NIM. 14.03.1.1.1.00023. Pengaruh Pupuk Kandang Ayam dan Kascing Pada Pertumbuhan dan Hasil Tanaman Bawang Dayak (*Eleutherine americana* Merr.) di Tanah Mediteran (Alfisol). Pembimbing: **Ir. Slamet Supriyadi, M.Si.**

ABSTRAK

Bawang dayak merupakan tanaman yang berpotensi sebagai tanaman obat karena mengandung senyawa metabolit sekunder seperti: alkaloid, steroid, glikosida, flavonoid, fenolik, saponin dan tannin. Bawang dayak merupakan tanaman multifungsi dapat mengatasi berbagai penyakit kanker, autisme, diabetes militus, hipertensi, kolesterol, bisul, dan stroke. Tanah mediteran (alfisol) merupakan tanah memiliki kandungan liat yang tinggi, ketersediaan air rendah, pH tanah seringkali diatas 7 (reaksi tanah cenderung alkalis), kandungan bahan organik dan nitrogen yang sangat rendah. Penelitian ini bertujuan untuk mengetahui pengaruh jenis dan dosis pupuk organik pada pertumbuhan dan hasil tanaman bawang dayak (*Eleutherine americana* Merr.) di tanah mediteran (alfisol). Penelitian ini dilaksanakan di Rumah Plastik Kebun Percobaan Agroteknologi, Fakultas Pertanian, Universitas Trunojoyo Madura, Bangkalan, Madura dari bulan Desember hingga Maret 2018. Rancangan penelitian menggunakan rancangan acak lengkap dengan 7 perlakuan dosis pupuk kandang ayam dan pupuk kascing yang terdiri dari: M0 (0 g/pot), M1 (27 g/pot), M2 (54g/pot), M3 (81 g/pot), M4 (27 g/pot), M5 (54 g/pot), dan (81 g/pot). Data dianalisis dengan metode ortogonal kontras (MOK). Hasil penelitian menunjukkan bahwa pupuk organik berpengaruh sangat nyata pada parameter pengamatan jumlah daun 10 MST; 11 MST; 12 MST, jumlah anakan, jumlah umbi per rumpun, bobot basah umbi per rumpun, bobot basah brangkasan, bobot kering brangkasan dan berpengaruh nyata pada bobot kering umbi per rumpun. Dosis pupuk kandang ayam 27 g/pot memberikan hasil umbi terbaik.

Kata Kunci: Bawang Dayak, Pupuk Organik, Tanah Mediteran (Alfisol), Pupuk Kandang Ayam, Kascing.

IDA SUPIANTI SIRAIT. 14.03.1.1.100023. Effect of Chicken Manure and Vermicompost on Growth and Yield of Dayak Onion (*Eleutherine americana* Merr.) in Mediteran Soil (Alfisol). Supervisor: **Ir. Slamet Supriyadi, M.Si.**

ABSTRACT

Dayak onion is a medicinal plant that contains several secondary metabolites including alkaloids, steroids, glycosides, flavonoids, phenolic, saponins and tannins. This plant is a multifunctional plant that can cope with various diseases including cancer, autism, diabetes mellitus, hypertension, cholesterol, ulcers, and stroke. Mediterranean soil (alfisol) has high clay soil, low water availability, pH > 7, very low organic matter and nitrogen content. The purpose of this research was to study effect of type and dosage of organic fertilizer on growth and yield of Dayak onion (Eleutherine americana Merr.) on Mediterranean soil (Alfisol). This research was carried out at Experimental field of Agrotechnology, Agricultural Faculty, Trunojoyo Madura University, Bangkalan, Madura from December to March 2018. The research was arranged on a randomized complete design with treatments consisting of chicken manure and vermicomposting applied at 0, 27, 54 and 81 g/pot respectively. Data were analyzed by contrast orthogonal. Results showed that organic fertilizer had a very significant effect on leaf number at 10, 11, and 12 WAP, number of tillers and tubers per plant, fresh weight of bulb and stalk per plant, dry weight of stover, and significantly effect on dry weight of tuber per plant. Chicken manure had better effect than vermicomposting on both growth and production of the dayak onion. Application of chicken manure at 27 g/pot (10 tons/ha) gave similar production as those from higher dosages. All mechanisms how organic fertilizer affect growth and production were discussed.

Keywords: Dayak Onion, Organic Fertilizer, Mediterranean Soil (Alfisol), Chicken Manure, Vermicompost.