

Nastiti Rindriarseh. (200311100052). Pengaruh Pemberian Pupuk Urea Dan Kompos Biochar Terhadap Pertumbuhan Dan Hasil Tanaman Pakcoy (*Brassica rapa* L.). Dibimbing oleh: Ir. Slamet Supriyadi, M.Si Dan Dr. Diana Nurus S., S.Farm., Apt., M.Si

ABSTRAK

Pakcoy merupakan tanaman hortikultura yang banyak dimanfaatkan masyarakat Indonesia. Salah satu strategi budidaya untuk meningkatkan produktivitas pakcoy yaitu penggunaan pembenah tanah kompos dan pupuk anorganik. Tujuan penelitian ini untuk mengetahui pengaruh interaksi antara pupuk urea dan kompos biochar terhadap pertumbuhan dan hasil tanaman pakcoy. Penelitian dilaksanakan di *Greenhouse*, Universitas Trunojoyo Madura pada bulan Januari 2024 hingga Februari 2024. Perlakuan disusun dalam Rancangan Acak Lengkap (RAL) Faktorial, yang terdiri dari 2 faktor yaitu kompos biochar dan pupuk urea. Faktor kompos biochar terdiri dari 3 level, yaitu (P0) (0 ton/ha) (P1), (20 ton/ha) dan (P2) (10 ton/ha). Faktor pupuk urea terdiri atas 3 level, yaitu (N0) (0 kg/ha) (N1) (200 kg/ha) (N2) (150 kg/ha). Dari kombinasi kedua faktor tersebut diperoleh 9 perlakuan, yaitu N0P0 (Tanpa pupuk urea dan kompos biochar, N0P1 (tanpa pemberian pupuk urea + 20 ton/ha kompos biochar), N0P2 (tanpa perlakuan pupuk urea + 10 ton/ha kompos biochar), N1P0 (200 kg/ha pupuk urea + tanpa perlakuan kompos biochar), N1P1 (200 kg/ha pupuk urea + 20 ton/ha kompos biochar), N1P2 (200 kg/ha pupuk urea + 10 ton/ha kompos biochar), N2P0 (150 kg/ha pupuk urea + tanpa perlakuan kompos biochar), N2P1 (150 kg /ha pupuk urea + 20 ton/ha kompos biochar), N2P2 (150 kg/ha pupuk urea + 10 ton/ha kompos biochar). Setiap perlakuan diulang 4 kali, sehingga diperoleh sebanyak 36 unit perlakuan. Hasil penelitian menunjukkan interaksi pemberian pupuk urea dan kompos biochar berpengaruh nyata terhadap parameter jumlah daun 3 MST rata-rata tertinggi pada perlakuan N0P1 (Kontrol + Kompos biochar 20 ton/ha), dan kandungan Klorofil total rata-rata tertinggi pada perlakuan N1P1 (Pupuk urea 200 kg/ha + Kompos biochar 20 ton/ha).

Kata kunci: Klorofil, Kompos Biochar, Pakcoy, Pupuk Urea

Nastiti Rindriarseh. (200311100052). The Effect Application of Urea and Biochar Compost on Growth and Yield of Pakcoy Plants (*Brassica rapa* L.). Supervised by: Ir. Slamet Supriyadi, M.Si and Dr. Diana Nurus S., S.Farm., Apt., M.Si

ABSTRACT

Pakcoy is a horticultural plant that is widely used by Indonesian people. One of the cultivation strategies to increase pak choy productivity is the use of compost soil amendment and inorganic fertilizer. The aim of this research was to determine the effect of the interaction between urea fertilizer and biochar compost on the growth and yield of pak choy plants. The research was carried out in the Greenhouse, Trunojoyo University Madura from January 2024 to February 2024. The treatments were arranged in a Factorial Completely Randomized Design (CRD), which consisted of 2 factors, namely biochar compost and urea fertilizer. The biochar compost factor consists of three levels, namely (P0) (0 tons/ha) (P1), (20 tons/ha) and (P2) (10 tons/ha). The urea fertilizer factor consists of 3 levels, namely (N0) (0 kg/ha) (N1) (200 kg/ha) (N2) (150 kg/ha). From the combination of these two factors, 9 treatments were obtained, namely N0P0 (Without urea fertilizer and biochar compost, N0P1 (without urea fertilizer + 20 tonnes/ha of biochar compost), N0P2 (without urea fertilizer treatment + 10 tonnes/ha of biochar compost), N1P0 (200 kg/ha urea fertilizer + no biochar compost treatment), N1P1 (200 kg/ha urea fertilizer + 20 tons/ha biochar compost), N1P2 (200 kg/ha urea fertilizer + 10 tons/ha biochar compost), N2P0 (150 kg/ha urea fertilizer + no biochar compost treatment), N2P1 (150 kg/ha urea fertilizer + 20 tons/ha biochar compost), N2P2 (150 kg/ha urea fertilizer + 10 tons/ha biochar compost). Each treatment was repeated 4 times, so that 36 treatment units were obtained. The research results showed that the interaction of urea fertilizer and biochar compost had a significant effect on the highest average 3 WAP leaf number parameters in the N0P1 treatment (Control + 20 ton/ha biochar compost), the average chlorophyll B content. The highest average was in the N2P0 treatment (150 kg/ha urea fertilizer + Control), and the highest average total chlorophyll content was in the N1P1 treatment (200 kg/ha urea fertilizer + 20 ton/ha biochar compost).

Key words: Chlorophyll, Biochar Compost, Pakcoy, Urea Fertilizer