

DEWI NURMAWATI NIM. 18.03.111.00072.

Pengaruh Bokashi Terhadap Serapan N dan Pertumbuhan Tanaman Jagung (*Zea mays* L.)
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ABSTRAK

Penelitian ini dipelajari efek dari 3 macam bokashi (A,B,C) yang mempunyai komposisi berbeda untuk mengetahui efeknya pada serapan N tanaman jagung. Bokashi A = 1:1 (50% biochar :50% pupuk kandang ayam dan legume bambara), Bokashi B = 1:3 (25% biochar :75% seresah legume bambara), Bokashi C= 3:1 (75% biochar : 25% pupuk kandang ayam dan seresah legume bambara). Penelitian ini bertujuan untuk mengetahui pengaruh bokashi terhadap serapan N dan pertumbuhan tanaman jagung (*Zea mays* L.); dan mengetahui komposisi bokashi yang terbaik terhadap serapan N dan pertumbuhan Tanaman Jagung (*Zea mays* L.). Penelitian ini dilaksanakan pada bulan November 2021 hingga Maret 2022 di di Screen House Program Studi Agroteknologi Fakultas Pertanian Universitas Trunojoyo Madura di Desa Telang, Kecamatan Kamal, Kabupaten Bangkalan, Jawa Timur, yang terletak pada ketinggian tempat $\pm$ 5 mdpl. Percobaan disusun berdasarkan Rancangan Acak Lengkap (RAL) non faktorial, terdiri atas 11 taraf perlakuan, yaitu P0 (kontrol), PL (NPK), PA5 (pembenah tanah 1:1; 5 ton/ha), PA10 (pembenah tanah 1:1; 10 ton/ha), PA15 (pembenah tanah 1:1; 15 ton/ha), PB5 (pembenah tanah 1:3; 5 ton/ha), PB10 (pembenah tanah 1:3; 10 ton/ha), PB15 (pembenah tanah 1:3; 15 ton/ha), PC5 (pembenah tanah 3:1; 5 ton/ha), PC10 (pembenah tanah 3:1; 10 ton/ha), PC15 (pembenah tanah 3:1; 15 ton/ha). Hasil penelitian menunjukkan perlakuan bokashi berpengaruh tidak nyata terhadap parameter kandungan N tanaman dan serapan N. Namun, berpengaruh nyata terhadap parameter C-Organik, diameter batang, bobot basah tanaman dan bobot kering total tanaman dan efisiensi serapan. Perlakuan PB10 secara nyata mampu meningkatkan N jaringan tanaman, serapan N secara berurutan sebesar 41,42% dan 43,2% dibandingkan dengan kontrol, sedangkan dibandingkan dengan perlakuan PL (NPK) cenderung meningkatkan N jaringan tanaman, serapan N secara berurutan sebesar 73,47% dan 5,09%.

Kata Kunci: Bokashi, Serapan N, Jagung (*Zea mays* L.)

DEWI NURMAWATI NIM. 18.03.111.00072.

Effect of Bokashi on N Uptake and growth of Maize (*Zea mays* L.)

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ABSTRACT

This study studied the effect of 3 kinds of bokashi (A, B, C) which had different compositions to determine their effect on N uptake of maize. Bokashi A = 1:1 (50% biochar :50% chicken manure and legume bambara), Bokashi B = 1:3 (25% biochar :75% litter of legume bambara), Bokashi C= 3:1 (75% biochar : 25% chicken manure and legume bambara litter). This study aims to determine the effect of different bokashi on N uptake of Corn (*Zea mays* L.); and knowing the best bokashi composition on N uptake of Corn (*Zea mays* L.). This research was carried out from November 2021 to March 2022 at the Screen House of the Agrotechnology Study Program, Faculty of Agriculture, Trunojoyo Madura University in Telang Village, Kamal District, Bangkalan Regency, East Java, which is located at an altitude of + 5 meters above sea level. The experiment was arranged based on a non-factorial completely randomized design (CRD), consisting of 11 treatment levels, namely P0 (control), PL (NPK), PA5 (1:1 soil repairer; 5 tons/ha), PA10 (1:1 soil repairer). ; 10 tons/ha), PA15 (1:1 soil repairer; 15 tons/ha), PB5 (1:3 soil repairer; 5 tons/ha), PB10 (1:1 soil improvement; 10 tons/ha), PB15 (1:3; 15 tons/ha), PC5 (3:1; 5 tons/ha), PC10 (3:1; 10 tons/ha), PC15 (3:1; 15 soil amendment). tons/ha). The results showed that bokashi treatment had no significant effect on plant N content and N uptake parameters. However, it had a significant effect on C-Organic parameters, stem diameter, plant wet weight and total plant dry weight and uptake efficiency. PB10 treatment was significantly able to increase plant tissue N, N uptake was 41.42% and 43.2% respectively compared to the control, while compared to PL (NPK) treatment it tended to increase plant tissue N, N uptake sequentially was 73.47 % and 5.09%.

Keywords: Bokashi, N uptake, Corn (*Zea mays* L.)