

Nofita Purniawati 180311100064. Pengaruh Bokashi terhadap Serapan P dan Pertumbuhan Tanaman Jagung (*Zea mays* L.). Pembimbing Ir. Slamet Supriyadi, M.Si.

ABSTRAK

Aplikasi bokashi dari campuran biochar dan bahan organik kaya unsur hara diduga mampu meningkatkan ketersediaan hara dan memperbaiki sifat tanah di alfisol. Penelitian ini bertujuan untuk mengetahui pengaruh dosis bokashi terhadap serapan P dan pertumbuhan tanaman jagung (*Zea mays* L.). Penelitian dilaksanakan di *screen house* Agroekoteknologi Fakultas Pertanian Universitas Trunojoyo Madura, yang terletak pada ketinggian $\pm$ 5 meter dpl, dari bulan Desember 2021 sampai April 2022. Percobaan dirancang dengan Rancangan Acak Lengkap (RAL) non faktorial, yaitu P0 (kontrol), PL (350 kg/ha NPK 15-15-15), PA5 (5 t/ha bokashi), PA10 (10 t/ha bokashi), PA15 (15 t/ha bokashi), PB5 (5 t/ha bokashi), PB10 (10 t/ha bokashi), PB15 (15 t/ha bokashi), PC5 (5 t/ha bokashi), PC10 (10 t/ha bokashi), PC15 (15 t/ha bokashi). Hasil penelitian menunjukkan perlakuan berpengaruh tidak nyata terhadap serapan P dan pertumbuhan tanaman jagung, kecuali pada parameter diameter batang, dan C-organik. Meskipun demikian, perlakuan PB10 (10 t/ha bokashi komposisi 1:3) setara dengan perlakuan PL (350 kg/ha NPK 15-15-15) dan cenderung memberikan nilai tertinggi dan cenderung meningkatkan P sebesar 35% dibandingkan dengan perlakuan tanpa bokashi (kontrol).

Kata kunci: bokashi, fosfor, jagung (*Zea mays* L.)

Nofita Purniawati 180311100064. Effect of Compost on Phosphorus Uptake and Plant Growth of Corn (*Zea mays* L.). Supervisor Ir. Slamet Supriyadi, M.Si.

ABSTRACT

Application of bokashi from a mixture of biochar and organic matter rich in nutrients is thought to be able to increase nutrient availability and improve soil properties in alfisol. The objective of this study was to investigate the effect of compost on phosphorus uptake and growth of corn (*Zea mays* L.). The research was carried out at the screen house of Agroecotechnology, Faculty of Agriculture, Trunojoyo University, Madura, which is located at an altitude of ± 5 meters above sea level, from December 2021 to April 2022. The experiment was designed with a non-factorial Completely Randomized Design (CRD), namely P0 (control), PL (350 kg/ha NPK 15-15-15), PA5 (5 t/ha compost), PA10 (10 t/ha compost), PA15 (15 t/ha compost), PB5 (5 t/ha compost), PB10 (10 t/ha compost), PB15 (15 t/ha compost), PC5 (5 t/ha compost), PC10 (10 t/ha compost), PC15 (15 t/ha compost). The results showed that there was no significant effect on P uptake and maize plant growth as indicators, except for stem diameter parameters, and C-organic. However, treatment with PB10 (10 t/ha compost composition 1:3) was equivalent to PL (350 kg/ha NPK 15-15-15) and tended to give the highest value and tended to increase P by 35% compared to treatment without compost (control).

Keywords: compost, corn (*Zea mays* L.), phosphorus