

Elfa Ria Rosita 190311100104. Pengaruh Aplikasi Secara Tunggal Pupuk P Dan Kompos Biochar Terhadap Pertumbuhan Dan Hasil Tanaman Jagung (*Zea mays* L.) Sayur. Pembimbing Ir. Slamet Supriyadi, M.Si.

ABSTRAK

Aplikasi kompos biochar dapat memperbaiki sifat kimia, fisik, dan biologi tanah, sehingga kompos biochar mampu meningkatkan kesehatan tanah dan produktivitas tanaman. Penelitian ini bertujuan untuk mengetahui besar pengaruh pupuk P dan kompos biochar (KB) secara tunggal terhadap pertumbuhan hasil tanaman jagung sayur. Penelitian ini dilaksanakan di *Screen House* Agroekoteknologi Fakultas Pertanian Universitas Trunojoyo Madura, menggunakan Rancangan Acak Lengkap (RAL) non faktorial Perlakuan P1: 50 kg Sp36/ha (0,25 g Sp36/pot), P2: 65 kg Sp36/ha (0,325 gSp36/pot), P3: 80 kg Sp36/ha (0,4 gSp36/pot) perlakuan P4: 1,5 ton KB /ha (7,5gKB/pot), P5: 2,5 ton KB/ha (12,5 g KB/pot) dan P6: 3,5 ton KB/ha (17,5 g KB/pot). Hasil penelitian menunjukkan bahwa pemberian pupuk Sp36 (P) dan kompos biochar (KB) berpengaruh tidak nyata terhadap hampir seluruh parameter penelitian, kecuali total bobot basah tanaman. Dengan rerata tertinggi total bobot basah tanaman adalah P2 (174.00 g) dan berbeda nyata dengan perlakuan lainnya.

Kata kunci : tanah, biochar, jagung sayur

Elfa Ria Rosita 190311100104. Effect of Single Application of P Fertilizer and Biochar Compost on the growth Yield of Vegetable Corn (*Zea mays* L.). Supervisor Ir. Slamet Supriyadi, M.Si.

ABSTRACT

Biochar application enhances the soil's chemical, physical, and biological characteristics, hence promoting soil health and increasing plant productivity. The objective of this study was to assess the effect of P fertilizer and biochar compost (BC) applied individually on the growth and yield of maize vegetable crops. Research was carried out in the Agroecotechnology Screen House, located, the Faculty of Agriculture, the University of Trunojoyo Madura. Experiments were arranged on a non-factorial Completely Randomized Design (CRD) with six treatments, which were. P1: (50 kg SP36/ha or 0.25 gSp36/ pot), P2 (65 kg Sp36/ha or 0.325 g Sp36/pot), P3(80 kg/ha or 0.4 g Sp36/pot), P4(1.5 ton BC/ha or 7.5 g BC/pot), P5: 2.5 ton BC/ha or 12.5 g BC/pot), and P6(3.5 ton BC/ha or 17.5 g BC/pot). Results showed that the application of biocharcompost (BC) and Sp36 (P) did not significantly affect on most of variables, except of the totalweight of fresh plant. The treatment P2 had the greatest average total weight of fresh plant, which was 174.00 g/plant.

Keywords : *soil, biochar, vegetable corn*