

### **Intisari**

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan biochar sekam padi terhadap sifat kimia tanah dan produktivitas tanaman padi. Pengambilan sampel tanah dilakukan pada awal sebelum diberikan perlakuan dan setelah satu minggu perlakuan. Pengambilan sampel tanaman dilakukan pada akhir masa vegetatif dan akhir masa generatif. Penelitian ini dilaksanakan di desa Wasiat, kecamatan Ngombol, kabupaten Purworejo, Jawa Tengah pada bulan Januari 2020 hingga Mei 2020. Perlakuan yang ditambahkan adalah biochar sekam padi dengan dosis 5 ton/ha, 10 ton/ha, 15 ton/ha, 20 ton/ha, 25 ton/ha, 30 ton/ha, 35 ton/ha, dan 40 ton/ha. Hasil penelitian menunjukkan penambahan biochar sekam padi pada dosis 10-15 ton/ha dapat meningkatkan beberapa sifat kimia tanah seperti pH H<sub>2</sub>O, daya hantar listrik (DHL), bahan organik, C-organik, P-total, P-tersedia, dan K-tersedia. Penambahan biochar sekam padi pada dosis 25 ton/ha mampu meningkatkan produktivitas padi meskipun tidak berbeda nyata dengan perlakuan tanpa penambahan biochar sekam padi.

Kata kunci : biochar sekam padi, dosis biochar, bahan organik, produktivitas, padi

### *Abstract*

This study aims to determine the effect of addition of biochar husk on soil chemical properties and productivity of rice plants. Soil samples were taken at the beginning before being given treatment and after one week of treatment. Plant sampling was carried out at the end of the vegetative period and the end of the generative period. This research was conducted in Wasiat village, Ngombol sub-district, Purworejo district, Central Java from January 2020 to May 2020. The added treatment was rice husk biochar at a dose of 5 tons/ha, 10 tons/ha, 15 tons/ha, 20 tons/ha, 25 tons/ha, 30 tons/ha, 35 tons/ha, and 40 tons/ha. The results showed that the addition of rice husk biochar at a dose of 10-15 tons/ha could increase some soil chemical properties such as pH H<sub>2</sub>O, electrical conductivity (DHL), organic matter, C-organic, P-total, P-available, and K-available. The addition of rice husk biochar at a dose of 25 tons/ha was able to increase rice productivity, although it was not significantly different from the treatment without the addition of rice husk biochar.

Keywords: rice husk biochar, biochar dose, organic matter, productivity, rice