EFFECT OF CONSORTIUM DOSAGE AND POC CONCENTRATION OF RICE HUSK LIQUID SMOKE ON THE GROWTH, YEARS AND EDAMAME SOYBEAN SEEDS (Glycine max (L.) Merill)

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ABSTRACT

This study aims to obtain the best combination of microbial consortium doses and POC concentrations of rice husk liquid smoke on growth, yield and soybean edamame seeds. The research method used was a field research method which was arranged using a Completely Randomized Block Design with two factors. The first factor was the dose of the microbial consortium which consisted of 3 levels, namely 10 Kg/Ha, 20 Kg/Ha and 30 Kg/Ha. The second factor was the POC concentration of rice husk liquid smoke consisting of 3 levels, namely 30 mL/L, 40 mL/L and 50 mL/L, and the control NPK was 400 kg/ha. ANOVA analysis at 5% level followed by 5% DMRT test at 30 Kg/Ha microbial consortium doses yielded good results on the number of branches 2 and 4 MST, the number of pods and the number of seeds per plant, the weight of pods and seeds per plant and the weight of pods and seeds per plot. The POC concentration of rice husk liquid smoke of 50 mL/L produced good results in the treatment of the number of branches per plant at 2, 4 and 6 WAP. The orthogonal contrast test resulted in plant height of 4 and 6 WAP, number of leaves 4 WAP, stem diameter 2 WAP, number of branches 6 WAP, number of pods and seeds per plant and pod weight per plot better than the control.

Keywords: Edamame soybean plants, microbial consortium and POC rice husk liquid smoke