INTISARI

Di Indonesia potensi penggunaan arang cukup besar, mengingat bahan baku cukup tersedia contohnya sekam padi. Pada proses penggilingan padi, sekam akan terpisah dari bulir beras dan menjadi bahan sisa atau limbah penggilingan padi. Limbah berupa sekam padi sangat melimpah, setiap penggilingan padi pasti terdapat gundukan sekam. Pemanfaatan sekam padi untuk pertanian sangat minim di Kabupaten Dompu. Penelitian ini bertujuan : untuk mengetahui pengaruh arang, kompos serta kombinasi arang dan kompos terhadap pertumbuhan bibit tebu.

Penelitian ini dilakukan di PIAT UGM menggunakan rancangan penelitian Rancangan Acak Lengkap (RAL) dengan 9 Perlakuan dan 3 ulangan. Perlakuan terdiri dari K (kontrol), A1 (arang 1%), A2 (arang 2%), A1K (arang 1% + kompos daun), A1B (arang 1% + blotong), A1V (arang 1% + vinase), A2K (arang 2% + kompos daun), A2B (arang 2% + blotong), A2V (arang 2% + vinase). Variabel sifat kimia yang diamati adalah pH tanah, C-organik, bahan organik, N tersedia, N total, P tersedia, K tersedia dan KPK tanah. Variabel pertumbuhan tanaman yang diamati adalah tinggi tanaman, jumlah daun, bobot akar dan bobot tajuk.

Data hasil analisis tanah dan pengamatan parameter tanaman dianalisis sidik ragam (analisis of variance) dan perlakuan yang menunjukkan beda nyata dianalisis dengan menggunakan Duncan Multiple Range Test (DMRT) dengan tingkat signifikan 5%. Hasil penelitian menunjukkan penambahan arang sekam terhadap perlakuan menunjukkan beda nyata tehadap pertumbuhan tanaman tebu seperti tinggi tanaman, bobot akar dan bobot tajuk. Pemberian arang sekam memberi pengaruh yang nyata bagi sifat kimia tanah yang meliputi pH, C-organik, bahan organik, nitrogen total, nitrogen tersedia, fosfor tersedia kalium tersedia dan KPK tanah. Perlakuan yang paling mempengaruhi pertumbuhan tanaman tebu adalah A2V (arang 2% + vinase).

Kata Kunci : Arang Sekam, Tebu, Inceptisol, Pemupukan

ABSTRACT

In Indonesia, the potential for using charcoal is quite large, considering that there are enough raw materials for example rice husks. In the rice milling process, the husks will separate from the rice grains and become waste material or rice milling waste. Waste in the form of rice husks is very abundant, every rice mill there must be a mound of husks. The use of rice husks for agriculture is minimal in Dompu Regency. This study aims: to determine the effect of charcoal, compost, and the combination of charcoal and compost on the growth of sugarcane seedlings.

This research was conducted at PIAT UGM using a completely randomized design (CRD) with 9 treatments and 3 replications. The treatments consisted of K (control), A1 (1% charcoal), A2 (2% charcoal), A1K (1% charcoal + leaf compost), A1B (1% charcoal + bagasse), A1V (1% charcoal + vinasse), A2K (2% charcoal + leaf compost), A2B (2% charcoal + bagasse), A2V (2% charcoal + vinasse). The chemical properties variables observed were soil pH, C-organic, organic matter, available N, total N, available P, available K, and soil LCM. The plant growth variables observed were plant height, number of leaves, root weight, and crown weight.

Data from soil analysis and plant parameter observations were analyzed for variance (analysis of variance) and treatments that showed significant differences were analyzed using the Duncan Multiple Range Test (DMRT) with a significant level of 5%. The results showed that the addition of husk charcoal to the treatment showed significant differences in the growth of sugarcane plants such as plant height, root weight, and crown weight. The addition of husk charcoal had a significant effect on the chemical properties of the soil which included pH, C-organic, organic matter, total nitrogen, available nitrogen, available phosphorus, available potassium, and soil CEC. The treatment that most affected the growth of sugarcane was A2V (2% charcoal + vinasse).

Keywords: Husk Charcoal, Sugar Cane, Inceptisol, Fertilization