

ABSTRACT

Tomato is an economically valuable horticultural crop. The efforts are being made to increase the productivity of agricultural lands, especially in the cultivation of tomatoes, through cultivation and fertilization. The tillage and feeding are important factors in the growth and productivity of plants. The cultivation and application of fertilizers such as biochar and coffee husk compost are expected to increase the growth and yield of tomatoes. The aim of this study was to determine the effect of biochar and coffee husk compost and their combination on tomato growth and yield. The research was conducted in the village of Geulumpang Sulu East, Dewantara Regency, North Aceh Province, and at the Institute of Agroecotechnology, Faculty of Agriculture, Universitas Malikussaleh. This study used a randomized factorial block design (RBD) with 3 replications. The first factor was biochar, consisting of (B0) 0 kg/bed, (B1) 0.9 kg/bed (6 tons/ha) and (B2) 1.8 kg/bed (12 tons/ha). The second factor was coffee husk compost (K0) 0 kg/bed, (K1) 1.5 kg/bed (10 tons/ha), (K2) 3 kg/bed (20 tons/ha). The results showed that the best biotone was given at B3 level. Biochar application affected variable plant height at 7 and 14 DAP and variable number of leaves at 7 DAP. The application of coffee husk compost was based on the variables of plant height, number of leaves, stem diameter, number of fertile stems, number of fruit trees, number of fruits / plot, weight of planted fruit, weight of soil / plot, root length, and the roots were severely damaged diameter. There was no interaction between the application of biochar and coffee husk compost on the growth and yield of tomato.

Keywords: Tomatoes, Biochar, Coffee husk Compost