ABSTRACT

Sweet corn (*Zea mays L. Saccharata*) is a food crop and the most important source of carbohydrates after rice, tubers, sorghum and other food crops. Corn production in Indonesia is not sufficient for consumption needs due to the unavailability of land rich in nutrients. One way to maximize production is by providing mycorrhizal fertilizer and NPK. This research was carried out in the experimental field of the Malikussaleh Meteorological Station, Meteorology Climatology and Geophysics Agency, Muara Batu District, North Aceh Regency, for 3 months, namely July to September 2023, using a factorial Randomized Block Design (RAK). Consists of two factors. The first factor Mycorrhiza (M) consists of 3 levels, namely: M_0 = 0 g/plant (control) M_1 = 10 g/plant and M_2 = 20 g/plant. The second factor is NPK (N) which consists of 3 levels, namely: N_0 = 0 g/plant, N_1 = 5.6 g/plant and N_2 = 8.4 g/plant. The results of the research showed that the application of mycorrhiza had a real influence on the parameters of plant height at 21 DAT, stem diameter at 14 and 42 DAP. The influence is very real on the parameters of stem diameter at 21 DAT, number of rows of cobs, production of husk corn (tons/ha). The application of NPK fertilizer had a significant effect on the parameters of cob length without husks, a very significant effect on the parameters of stem diameter at 42 DAT and the production of husked corn (tons/ha). There was a real interaction between mycorrhiza and NPK fertilizer on the weight of cobs without husks.

Keywords: Corn cob, organic fertilizers and biofertilizers