

ABSTRACT

The melon plant (*Cucumis melo* L.) has high economic value, so innovation is needed in its cultivation techniques. This study aims to determine the influence of biochar and *Trichoderma harzianum* on the growth and production of melons in the hydroponic system of the substrate. This study was carried out at the *green house* of Taman Idjo Farm, Ponorogo, for three months with a factorial complete random design (RAL) consisting of two treatment factors, namely the dose of biochar (0 g, 250 g, 500 g, 750 g/kg cocopeat) and the dose of *Trichoderma harzianum* (0 g, 10 g, 20 g/kg cocopeat). The results showed that the combination of biochar and *Trichoderma harzianum* did not have a significant effect on plant height, number of leaves, stem diameter, and sweetness of melons. However, a dose of 750 g of biochar and 20 g of *Trichoderma harzianum* was shown to significantly increase the weight and diameter of the fruit. The use of biochar and *Trichoderma harzianum* can increase melon production, especially in terms of weight and fruit size.

Keywords: Melon, Biochar, *Trichoderma harzianum*.