ABSTRACT

Oil palm (Elaeis guineensis Jacq.) is the largest and most potential plantation commodity in Indonesia. Nursery is the initial stage of plant cultivation techniques. Seedling quality can be improved by using planting media that are suitable for the growth and development of oil palm seedlings. Increasing media fertility can be done by adding chicken manure and rice husk biochar. This study aims to determine the response of oil palm seedling growth in the pre-nursery to the provision of chicken manure and rice husk biochar. The research method used a two-factor Randomized Block Design (RBD). The first factor is chicken manure, while the second factor is rice husk biochar, each of which consists of 3 treatment levels. Single treatment of chicken manure affects the variables of plant height, stem diameter, number of leaves, leaf area, leaf chlorophyll, root length, root volume, wet weight, and dry weight. The best treatment is the use of chicken manure 50 g/polybag (K1). Single treatment of rice husk biochar only affects the variable of root length, and the best treatment is found in B2 (250 g/polybag). There is an interaction between the provision of chicken manure and rice husk biochar on leaf chlorophyll variables. The best interaction was obtained on the leaf chlorophyll variable of oil palm seedlings with the combination level of treatment K1B2 (chicken manure 50 g/polybag + rice husk biochar 250 g/polybag).

Keywords: Nursery, seeds, chlorophyll, Organic, cultivation, Soil conditioner