

ABSTRACT

Palm Oil (*Elaeis guineensis*) is one of Indonesia's mainstay plantation commodities, because it can contribute the country's largest foreign exchange. This study aimed to determine the effect of nitrogen fertilizer and rice husk biochar in increasing the growth of oil palm seedlings in pre nursery. This research was conducted in Ulee Reuleung, Dewantara District, North Aceh Regency and Agroecotechnology Laboratory Faculty of Agriculture Malikussaleh University from April to June 2024. The research used a two-factor Randomized Blok Design with 3 replication. The first factor was the dose of nitrogen fertilizer consisted of 3 levels, namely 0 g/polybag (N0), 1 g/polybag (N1), and 2 g/polybag (N2). The second factor was the dose of rice husk biochar consisted of 3 levels, namely 0 g/polybag (N0), 50 g/polybag (N1), and 100 g/polybag (N2). The results showed that a single application dose of nitrogen fertilizer influenced the variables of plant height, stem diameter, number, chlorophyll content, plant fresh weight, root length, root fresh weight, plant dry weight, and root dry weight. The best treatment was the dose of nitrogen fertilizer 2 g/polybag (N2). The dose of rice husk biochar affected the variables of plant height, stem diameter, chlorophyll content, plant fresh weight, root fresh weight, and plant dry weight. The best treatment was the dose of rice husk biochar 50 g/polybag (B1). There was interaction between nitrogen and biochar treatments on the variables of plant height, number of leaves, chlorophyll content, root fresh weight, and plant dry weight. The best treatment was the dose of nitrogen fertilizer 2 g/polybag + biochar 50 g/polybag (N2B1).

Keywords: *Dumpy, Seedling, Soil Conditioner, Vegetative.*