

ABSTRACT

Dragon blood is a type of plant from the Arecaceae family that has high commercial value because its young fruit skin contains sap that contains resin. This study was conducted in Paya Gaboh Village, Sawang District, North Aceh Regency, from April to July 2025. It used a Randomized Block Design (RBD) experiment with two factors and three replicates. The first factor was the dose of rice husk biochar (B₁) 50 g/polybag, (B₂) 75 g/polybag, and (B₃) 100 g/polybag. The second factor was the NPK fertilizer dose, (N₁) 2 g/polybag, (N₂) 4 g/polybag, and (N₃) 6 g/polybag. The parameters observed were plant height, number of leaves, leaf chlorophyll, stem diameter, leaf blade length, leaf blade width, root length, number of primary roots, number of secondary roots, fresh plant weight, root volume, and dry plant weight. The results showed that biochar treatment had a significant effect on plant height at 15 DAP, leaf width at 90 DAP, leaf length at 15 DAP, and a significant effect on root length and root volume. The best treatment was obtained at a dose of 100 g/polybag. NPK fertilizer treatment had a very significant effect on plant height at 15 days after planting, the number of primary roots, and a significant effect on plant height at 90 days after planting. There was an interaction between biochar and NPK fertilizer application on leaf width and plant wet weight. The best treatment was obtained in two combinations: 100 g/polybag of biochar + 6 g/polybag of NPK fertilizer for plant wet weight, and 50 g/polybag of biochar + 2 g/polybag of NPK fertilizer for leaf width.

Keywords: Dragoon blood, fertilizer dosage, rice husks, and soil conditioner