

ABSTRACT

Waxy corn (*Zea mays* L. var. Ceratina Kulesh) is a corn variety with high amylopectin content that produces kernels with a soft, chewy texture, making it a potential source of functional food. Waxy corn productivity remains relatively low; therefore, efforts to increase yield are needed through the application of rice husk biochar and coconut water liquid organic fertilizer. This study aimed to determine the effects of rice husk biochar, coconut water liquid organic fertilizer, and their interaction on the growth and yield of waxy corn. A two-factor Randomized Block Design (RBD) with three replications was employed. The first factor was rice husk biochar, consisting of three treatment levels: B0 (0 kg/plot), B1 (3 kg/plot), and B2 (4.5 kg/plot). The second factor was coconut water liquid organic fertilizer, consisting of three levels: A0 (0 ml/L), A1 (150 ml/L), and A2 (300 ml/L). The results showed that biochar significantly affected plant height at 21 days after planting (DAP), number of leaves at 35 DAP, root length, and total soluble solids. The best treatment was 3 kg/plot of rice husk biochar (B1). Coconut water liquid organic fertilizer significantly affected plant height at 21 DAP, number of leaves at 35 DAP, and stem diameter at 42 DAP. The best treatment was 300 ml/L of coconut water liquid organic fertilizer (A2). The interaction between biochar and coconut water liquid organic fertilizer significantly affected plant height at 21 DAP, number of leaves at 21 DAP, and stem diameter at 42 DAP. The best treatment was 0 kg/plot of rice husk biochar (B0) 300 ml/L of coconut water liquid organic fertilizer (A2).

Keywords: cereals, hormones, soil conditioners, TDS