

ABSTRACT

Glutinous corn (*Zea mays ceratina* L.) is a corn that has a special character and its popularity is increasing with its continued development as a food. However, glutinous corn production is still relatively low due to the use of local varieties with less intensive cultivation methods. This study aims to determine the effect of vermicompost fertilizer application on the growth and production of several varieties of glutinous corn (*Zea mays var ceratina* L.). This research was conducted in Releut Timu Village, Muara Batu District, North Aceh Regency from November 2024 to January 2025 using the Group Random Design (RAK) experimental method with 2 factors, namely: Variety Factor (V) of glutinous corn consists of 4 levels, namely: V1 (URI 1 Variety), V2 (Jutawan F1 Variety), V3 (Jantan F1 Variety), V4 (Rasanya F1 Variety) and Vermicompost Fertilizer Dosage Factor (P) which consists of 3 levels, namely P0 (Control), P1 (1,875 kg/ha), P2 (3.5 kg/ha). The results of the study showed that the best variety treatment was the Jutawan F1 variety which gave the best value on the observation of stem diameter, cob length, and without cobs, cob weight, and without cobs, number of rows per cob, cob weight per plot and glutinous corn yield. The best dose of vermicompost fertilizer is 3.5 kg/plot providing the best value at the parameters of plant height 14, 21,35, and 42 HST, number of leaves 14 HST, weight of prickly cobs, weight of cobs per plot, and glutinous corn production. The best combination of variety and vermicompost fertilizer was the change in plant height of 42 HST and cob length without loam in the combination of treatment of the Rasanya F1 variety with a dose of 3.5 kg/plot.

Keywords: Glutinous corn, vermicompost fertilizer, varieties