The Effectiveness of Rabbit Urine Fertilizer and NPK Based on the Growth of Sorghum (*Sorghum bicolor* L.)

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ABSTRACT

Scarcity and high prices of subsidized and non-subsidized inorganic fertilizers hamper production inputs in cultivation. One of the efforts to reduce the use of inorganic fertilizers is through the use of organic fertilizers in the form of rabbit urine bio fertilizer. The abundance and affordability of rabbit urine bio fertilizer can reduce the high cost of production inputs due to expensive inorganic fertilizers. In addition, rabbit urine has a higher N content compared to fertilizers derived from other livestock. This study aims to analyse the concentration of rabbit urine bio fertilizer that gives optimal results on the growth of sorghum plants (Sorghum bicolor L.*). This research was conducted on cultivated land in Glagahwero Village, Panti District, Jember Regency from November to February 2024. This study used a non-factorial Randomized Group Design (RAK) consisting of 6 levels, namely: P1 (0 ml/L), P2 (41 ml/L), P3 (27 ml/L), P4 (18 ml/L), P5 (9 ml/L), and P6 (5 ml/L). The results showed that the addition of rabbit urine bio fertilizer and NPK with a concentration of 41 ml/L plus a dose of 80% NPK had a significant effect with a concentration of 9 ml/L plus a dose of 80% NPK on the parameters of plant height and stem diameter of sorghum (Sorghum bicolor* L.*). However, the addition of rabbit urine bio fertilizer with a concentration of 41 ml/L was not significantly different from the concentration of 0 ml/L (control) with a dose of 100% NPK.*

Keywords: *Sorghum, Rabbit Urine Fertilizer, NPK*