Growth Response and Production Yield of Corn (Zea mays L.) to the Application of PGPR (Plant Growth Promoting Rhizobacteria) and Rabbit Manure Fertilizer

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ABSTRACT

The availability of land quality with unbalanced nutrients affects the growth of a plant, especially corn. PGPR can affect plant growth by optimizing its performance. Rabbit manure fertilizer is an additional organic material needed to support the performance of PGPR. This study was conducted with the aim of knowing how PGPR and the use of rabbit manure at certain doses can influence the development of corn plants. Using a factorial group randomized design with two components and three repetitions, the experiment was planned. The concentration of PGPR, 0 ml/L, 5 ml/L, and 10 ml/L, was the first factor. The amount of rabbit manure, 0, 5, and 10 tons per hectare, was the second factor. Plant height, number of leaves, stem diameter, and leaf width were the variables recorded. The results showed that the combination of 5 tons per hectare dose and 5 ml/L concentration caused the greatest interaction between PGPR and rabbit manure treatments on the leaf width variable. PGPR concentration had an effect of 10 ml/L on plant height variables. In the stem diameter variable, the influential dose of rabbit manure fertilizer is 5 tons/ha. Corn plants can develop faster if combined with fertilizers made from rabbit manure and PGPR in the right amount.

Key words: Corn, PGPR, Rabbit Manure