

**EFFECTS OF *Musa sapientum* L. VAR LAKATAN (BANANA)
AND *Solanum lycopersicum* L. (TOMATO) AS ORGANIC
FERTILIZER TO THE GERMINATION AND GROWTH
RATE OF *Vigna radiata* (MUNG BEAN)**



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ABSTRACT

The study was conducted to determine the effects of organic fertilizer (banana, tomato, and combination of banana and tomato) to the germination and growth rate of mung beans. As the test organism, one hundred twenty mung beans (*Vigna radiata*) were used for different treatments; namely, T0 (negative control), T1 (5g banana), T2 (5g tomato), and T3 (2.5 g of each banana and tomato) which the administration of fertilizer was placed half an inch below the soil surface and applied on a monthly basis while the collection of data for the germination (number of days), height (cm), final stem diameter (mm), and leaf parameters (length and width (cm) and number of leaves) were done weekly for eight weeks. The experiment employed the RCBD and after the results had been tabulated, ANOVA was used to determine if there was a significant difference among the data.

The findings for germination was the control group obtained the fastest rate compared to other treatments. In terms of height, the treatment that got the highest measurement is T0 (control group), followed by T2 (tomato), then T3 (combination of banana and tomato). The treatment with the lowest measurement for growth is T1 (banana). For the final stem diameter, the control group retrieved the greatest dimension. In terms of its leaf parameters, the length and width of leaves resulted in a significant difference after performing one- way ANOVA. The result of Scheffe was a significant difference in treatments: T0 vs. T3 and T2 vs. T3. In the number of leaves, the treatment which obtained the greatest quantity is T2 (tomato) consequently the lowest is T1 (banana).

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