

**EFFECT OF FOLIAR APPLICATION ON GROWTH PERFORMANCE OF  
MAIZE (*Zea mays L.*)**

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## ABSTRACT

### EFFECT OF FOLIAR APPLICATION ON GROWTH PERFORMANCE OF MAIZE (*Zea mays L.*)

Maize (*Zea mays L.*) is an important cereal crop in the world as an animal feed and human consumption. Nowadays, demand of maize in Malaysia is high, consequently rate of import maize in Malaysia also increase. To overcome the problem, Malaysia decide to produce own maize with high quality. However, improper nutrient management or environmental stress are the main factor that will affect the growth and performance of maize productivity. In agriculture, nutrient losses are commonly happened through leaching, fertilizer applied directly to soil will be leach from soil. This problem can be solve by using foliar fertilizer. The experiment was laid out in randomized complete block design (RCBD). Objective of this experiment is to identify the respond of foliar fertilizer on growth performance of maize as a supplement at different level of dosage. Four treatment with different dosage has been applied on maize variety Hibrimas. Treatment 0 act as control with 0ml of foliar fertilizer, treatment 1 with 2.5ml , treatment 2 with 1.5ml and treatment 3 with 0.5ml dosage of foliar fertilizer. Parameter of this experiment can be measure by plant height, SPAD (chlorophyll content), diameter of stem, and number of leaf. Diameter of stem, and number of leaf did not show any significant different with different treatment, but the plant height and SPAD give a very significant different with different dosage of foliar fertilizer. Applying foliar fertilizer with treatment 1 (2.5ml foliar fertilizer), resulting in good growth performance of maize in plant height and SPAD (chlorophyll content) unit. It can be prove that, the mean of plant height with treatment 1 is 187.50cm shown a good growth performance of maize compare with treatment 0, treatment 2 and treatment 3 with mean 142.25cm, 179cm and 161.25cm. The mean of SPAD for treatment 0, treatment 1, treatment 2 and treatment 3 are 37.25, 45.35, 42.13 and 38.58. Foliar fertilizer is the best method used during flooding season to overcome leaching. At the same time, it also can be used to corrected nutrient deficiency in a shorter period of time compared when apply fertilizer directly to soil.

*Keywords: Foliar application, dosage, treatment, growth performance, Maize (Zea mays L.).*