

**Pertumbuhan dan Hasil Jagung yang Dipupuk N, P, dan K pada Tanah Vertisol Isimu Utara
Kabupaten Gorontalo**

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ABSTRACT

Response of Maize (*Zea mays* L.) Lamuru FM Variety with Fertilized N, P, and K in North Isimu Vertisols of Gorontalo Regency (**Nurdin, P. Maspeke, Z. Ilahude, dan F. Zakaria**): The fertilizer availability as source of N, P, and K nutrient where plant response was difficult found by farmer. Therefore, it was needed information about nutrient availability in soil properties to know nutrient deficiency of it by maize as plant indicator. The objective of this research was to study the response of N, P, and K fertilizers and the best combination of it on the growth and yield of Maize. The research conducted at Udic Pellusterts in North Isimu Tibawa District of Gorontalo Regency. The experimental design was following random block design that consist of 5 treatments with 3 replications. The result of this research showing that minus N, P, and K fertilizers have a significantly effect on plant age polination, the percentage of height stem of an ear of corn to plant height and dry straw weight but did not have significantly effect on plant height and the weight of one hundred grain of Maize. To improve the growth and yield of Maize using fertilizing without P treatment were 250 kg Urea ha⁻¹ and 75 kg KCl ha⁻¹ or completely dosage were 250 kg Urea ha⁻¹, 100 kg TSP ha⁻¹ and 75 kg KCl ha⁻¹ as the best fertilizers combination.

Keywords: Growth and yield of maize, N, P, K fertilizers, Vertisols