

**RESPONSES OF GROWTH AND YIELD OF TWO VARIETIES OF
SWEET POTATO (*Ipomea batatas* L.) TOWARDS THE APPLICATION
OF POTTASIMUM FERTILIZER**

By: Achmad Nur Sidiq
Supervised by: Heti Herastuti dan Tutut Wirawati

ABSTRACT

Sweet potatoes are an important food commodity in Indonesia but their productivity has not yet reached its potential. The productivity of sweet potato plants depends on the variety and fertilizer used. This research aims to determine the growth and yield response of two sweet potato varieties to the application of potassium fertilizer. The experiment was carried out in the field using the Complete Randomized Block Design (RAKL) research method with the first factor, namely the Honey Variety and Purple Variety, and the second factor namely the dose of potassium fertilizer with 4 levels (0 kg/ha, 140 kg/ha, 210 kg/ha, and 280 kg/ha). The data obtained were analyzed for diversity using Analysis of Variance (ANOVA) at a level of 5%, followed by a further DMRT test (Duncan Multiple Range Test) at a level of 5%. There was an interaction between the variety and the dose of potassium fertilizer, the best results were in the combination treatment of the Purple Variety with a dose of Potassium fertilizer of 280 kg/ha on the number of tubers per plant. The Purple variety gave the best results at the number of leaves at 4, 6, and 8 WAP, number of primary branches at 10 WAP, number of tubers per plot, weight of sweet potatoes per plant, weight of sweet potatoes per plot, weight of sweet potatoes per hectare, and sweetness content of the sweet potatoes. The best potassium fertilizer dose is 140 kg/ha and 280 kg/ha on the number of sweet potatoes per plot, and the potassium fertilizer dose of 210 kg/ha and 280 kg/ha gives the best results on sweet potato weight per plant and sweet potato weight per hectare.

Keywords : Sweet potato, Variety, Pottasium Fertilizer