

AGUS SETIO WIBOWO. Evaluation of Some Varieties of sweet potato (Ipomoea batatas L.) In Drought Conditions. Supervised by Ir. Tutut Wirawati, M.Si and Ir. Ami Suryawati, MP

ABSTRACT

The purpose of the study was to determine the interaction between drought stress with sweet potato varieties, what varieties are best growth and results in drought conditions, the effect of drought on growth and yield of sweet potato , as well as a wide variety of influences on the growth and yield of sweet potato. The study was conducted at the Faculty of Agriculture Experiment UPN "Veteran" Yogyakarta, Wedomartani Village, Maguwoharjo, District Depok, Sleman regency, Yogyakarta. The experiment was conducted in April to August 2013. Research a polybag experiment with 2 factors. The design is a design environment used Compartment Divided (Split Plot Design) , as the main plot is kind of sweet potato varieties include V1 : Varieties Beta 2 , V2 : Varieties Papua Solossa , V3 : Varieties Sari, V4 : Varieties Beta 1, V5 : Varieties Kidal. Sub- plot is drought stress include C1 : Plants watered normally, C2 : Plants not watered for 7 days at 20 days after planting, C3 : Plants not watered for 7 days at 60 days after planting. The treatment was repeated 3 times. The data were analyzed using analysis of variance followed by Duncan 's Multiple Range Test Test (DMRT) at 5% significance level.

The results showed there was an interaction between varieties of sweet potato and stress treatments on the length of the main stem and stover dry weight per plant. Long stem Papua Solossa varieties and varieties Left longer than Beta 1 without stress treatment, stress 20 dap, 60 dap and stress. Stover dry weight per plant treatment without stress, stress 20 dap, 60 dap and stress did not show significant differences in varieties of Beta 2, Papua Solossa and Sari. Varieties Sari and Beta 2 gives the weight of tuber per plant higher. Varieties Papua Solossa and Kidal provide a higher starch content.

Keywords : sweet potato, varieties, drought stress