

**The Effect of Micronutrient on Growth, Yield, and Starch Content of Two Cassava  
(*Manihot esculenta* L. Crantz) Clones**

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**ABSTRACT**

Cassava (*Manihot esculenta* L. Crantz) is an important tuber crop in Lampung. The crop produces valuable starch and the tuber starch content is determined by many factors including clone/genotype, harvest time, and in some extent by soil nutrient availability. Farmers seldom apply micronutrient although it is known to affect starch metabolism and/or tuber yield. This research was aimed at valuating the effect of micronutrient on growth, yield, and starch content of two cassava clones harvested at 7 and 10 months. Research was done in Tanjung Bintang South Lampung from March 2017 to January 2018. The treatments consisted of two factors, two cassava clones (BW-1 and UJ 5) and two dosages of micronutrient (0 and 40 kg/ha) arranged in a randomized block design with three replicates. Plants received basic fertilizers in total of 200 kg/ha Urea, 100 kg/ha SP-36, and 200 kg/ha KCl. The micronutrient was applied at 3 months after planting together with half dose of Urea and half dose of KCl, whereas SP-36 was all applied at planting time. The size of each plot was 25m x 20 m and cassava was planted at 80 cm x 60 cm in distance. Result showed that growth and yield of cassava was different between clones but there was no effect of micronutrient amendment. UJ5 clone had lower number of leaves but produced higher tuber number and starch content than those of BW-1. Plant height was neither affected by the clones nor micronutrient. At 7 months harvest period, the addition of micronutrient on BW-1 clone resulted in highest number of plant dry weight and tuber weight. The effect of clones was more apparent than that of micronutrient's effect. It is suggested that the low soil pH (5.45) at the experimental site that makes the availability of soil micronutrient is enough to supply plants' demand.

Key words: Cassava, micronutrient, starch content, yield