

## **ABSTRACT**

### **THE EFFECT OF VARIOUS CONCENTRATIONS OF PACLOBUTRAZOL WHICH APPLIED THROUGH THE SOIL ON FLOWERING INDUCTION IN CASSAVA PLANT (*Manihot esculenta* Crantz.)**

**By**

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Cassava (*Manihot esculenta* Crantz.) is one of leading food commodities in Indonesia. Nowadays, its demand to fulfill world needs generally and Indonesia particularly increases. Unfortunately, cassava demand cannot be supported by its supply which is still low, therefore cassava genotype needs an improvement to be clone having high productivity through plant breeding. But in cassava breeding plan the main constrain is the difference in flowering time among genotypes. To solve that problem, the flowering induction in cassava plants is performed by using paclobutrazol, expectedly this treatment will be able to accelerate flowering time and produce superior cassava clones. The experiment was conducted to determine the effect of paclobutrazol through the soil on flowering induction in cassava plant.

In this experiment, paclobutrazol application (0, 250, 500, 750, 1.000 ppm) was conducted once through the soil by pouring it into the root area when the plant age was one month. The design of experiments was conducted by using a randomized block design with treatments repeated 3 times, and the experimental unit consisted of two plant samples. Observation was performed once every week after application. Observations including plant height, the number of leaves, leaf greenness level, wet weight plant, and dry weight of cassava plant.

The experimental results showed that paclobutrazol application through the soil could actively influence vegetative growth such as plant height, leaf greenness level and root weight. However, it did not influence the amount of leaves, wet weight of plant shoot, dry weight of plant shoot, and flowering induction of cassava plant.

Key words: paclobutrazol, flowering induction, cassava.