

## ABSTRACT

### EFFECT OF CONCENTRATION OF IBA (*Indole Butyric Acid*) AND APPLICATION METHOD ON GROWTH OF PINEAPPLE (*Ananas comosus* [L.] Merr) SEEDLING FROM CROWN CUTTING

By

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Pineapple (*Ananas comosus* [L.] Merr) is a tropical fruit that can be well developed in Indonesia. The technique is commonly used for propagation of pineapple is the vegetative method, one of them using seedling from crown cutting (*crown*). Pineapples are propagated by shoots rooted crown has a very low capacity, one of the efforts to be made to enhance root development is the provision of plant growth regulators (PGR) as *Indole Butyric Acid* (IBA).

This study was conducted to (1) determine the effect of IBA concentration on the growth of seedlings of pineapple from crown cutting, (2) application method of IBA on growth of pineapple seedling from crown cutting, and (3) determine the effect of IBA concentration on the growth of pineapple native seedlings sprout from crown cutting on each application method.

The study was conducted since February until May 2012 in the greenhouse building Horticulture, Faculty of Agriculture, University of Lampung. The treatment design is a factorial (5x2) arranged in randomize completely block design. The first factor is the concentration of IBA (A), which consists of: without IBA ( $a_0$ ), IBA 100 ppm ( $a_1$ ), IBA 200 ppm ( $a_2$ ), IBA 400 ppm ( $a_3$ ), and IBA 600 ppm ( $a_4$ ). The second factor is the application method (B), which consists of spraying method the solution form ( $b_1$ ) and the basting method of a paste ( $b_2$ ). Means homogeneity among the treatments were tested using Bartlett test and the aditivity data were tested with Tukey test. If both tests are not significance then data were analyzed with analysis of variance. Separation of means value were analyzed using Least Significant Difference (LSD) at 5 % significance level.

The results showed that (1) the concentration of 400 ppm IBA was able to increase the number of primary roots, leaf width and plant wet weight. (2) IBA application by spraying or smearing pasta did not give effect to all variabels except on the number of primary roots, a pasta form (11,77 piece) there are more than solution form (11,18 piece). (3) Effect of IBA concentration on the growth of seedling of pineapple crown buds origin is not determined by the applications method of IBA.

Key words: Concentration of IBA, Pineapple, and Application Method.