ABSTRACT

Rochmah, Ni'matur. 2014. **The propagation of Acacia (*Acacia mangium* Willd.) by giving a combination of ZPT BAP (*Benzyl Amino Purin*) and the IBA (Indole Butryc Acid) In Vitro**. Minor Thesis, Department of Biology, Faculty of science and technology State Islamic University (UIN) Maulana Malik Ibrahim Malang.

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Keywords: Shoot Cultures, Acacia (*Acacia mangium* Willd.), Benzyl Amino Purin (BAP), Indole Butryc Acid (IBA).

Acacia mangium Willd. also known as gum Acacia, is a fast growing tree species (fast growing species) are the most commonly used in the forest plantation development programs in Asia and the Pacific. The advantages of this type of tree is growing fast, good quality wood, and the ability of tolerance to various types of soil and the environment. Pulp paper as material benefits, as well as for furniture and flooring materials. Culture is the cultivation technique to shoots increased the productivity of the plant. One of the determinants of the success of these shoots are substances culture managers grow used. The purpose of this research is to know the influence of the treatment of several concentrations of BAP combined IBA against growth of shoots of Acacia (*Acacia mangium* Willd.) on MS medium.

This research was carried out in a Laboratory Tissue Culture Plants, Department of Biology, Faculty of Science and Technology, UIN Maulana Malik Ibrahim Malang in May-August 2014. The research design used was Complete Random Design (RAL) factorial pattern with 15 treatments and 3 replicates. The first factor is the BAP (0 mg/l; 0.5 mg/l; 1 mg/l; 1.5 mg/l,; 2 mg/l), while the second factor is the IBA (0mg/l; 0.5 mg/l; 1 mg/l). The Data obtained were analyzed using Analysis of Variance (ANOVA) followed by test Duncan Multiple Range Test (DMRT) on the test level of 95%.

The results of the research show that the emergence of shoots fastest time (5.67 weeks) was obtained in the treatment of BAP 2 mg/l + IBA 0.5 mg/l. Shoots growing percentage of 88.89% in the treatment of BAP 1.5 mg/l IBA + 1 mg/l. The highest shoot length (2,467 cm) was obtained in the treatment of BAP 1.5 mg/l IBA + 0 mg/l. Highest number of shoots (3 pieces) was obtained in the treatment of BAP 2 mg/l + IBA 0.5 mg/l. Filodia highest number (3 strands) obtained in the treatment of BAP 1.5 mg/l + IBA 0.5 mg/l. For best results of all treatments is BAP 1.5mg/l IBA + 1 mg/l.