ABSTRACT

Azizah, Yulia M.2014. The Influence of concentration and Long Soak of IAA (*Indole Acetic Acid*) towards the Growth of Vegetative Sugar Cane seed (*Saccharumofficinarum L.*) BL variety (Bululawang).Thesis.Biology department, the faculty of Saints and Technology, State Islamic University Maulana Malik Ibrahim, Malang. Advisor: Ruri Siti Resmisari, M. Si and Ach. Nasichuddin, M. A.

Keywords: IAA Auksin, Sugar Cane, concentration and long soak

The availability of high quality sugar cane is quite needed for having a big role of sugar production. So that the uses of *butset* seed which is from the second network structure generation (G2) constitutes the alternative availability of the fast, healthy, pure, and uniformed planting substance. The important factor which needs a great concern is the time period of sending to the destination place in storing the seed. In the effort of developing the growth of the seed, some treatments are needed in action before planting the seed. The given soak treatment with IAA is meant to raise the water quality and nutrition of the sprout for growing. Because IAA is liquid for settering growth.

This study was performed in the *Green House* of Biology department, the faculty of Saints and Technology, State Islamic University Maulana Malik Ibrahim, Malang in May-June, 2014. This study constitutes a random complete plan with 2 factors and 4 repetitions. The first factor is the concentration of IAA with 0 (control), 0.1 mg/L, 0.2 mg/L, 0.3 mg/L, and 0.4 mg/L. While the second factor is the long soak treatment involved 1 hour, 2 hours, 3 hours, and 4 hours. The data of this study is analyzed by ANOVA, and to know the best treatment, a further test of *Duncan Multiple Range Test* (DMRT) was performed with significant degree of 5%

The result of this study shows that there is raising growth of sugar cane (*Saccharumofficinarum* L.) in concentration treatment about 0.2 mg/L IAA is capable of growing the sprout, the length and the amount of the root. While in the concentration of 0.1 mg/L toward the growth of the sprout. The long soak treatment of IAA for 2 hours can raise the growth of the sprout, tall of sprout, amount of sprout and the length of sprout. In the concentrated interaction and the long soak are in the given IAA for 0.1 mg/L and the length of the soak for 2 hours, can be seen from the raising growth of sprout and the length of the root And the amount of the root in the given concentration 0.1 mg/L and the length of the soak is 1 hour.