Effect Of ZPT IAA And BAP On Growth Of Purple Sweet Potato (*Ipomoea batatas* L.) In Vitro

Supervised by Rudi Wardana, S.Pd., M.Si

Hanum Gita Pratiwi

Food Crop Production Technology Study Program Department of Agricultural Production

ABSTRACT

Sweet potato (Ipomoea batatas L.) is a potato that has a high content of anthocyanin pigments. This purple sweet potato is considered as the best source of anthocyanins. In cultivating purple sweet potato in-vitro way it can also be done in tissue culture which is a fast way to multiply purple sweet potato seeds to meet needs, relatively faster time, produce good quality seeds, and make small plants that have properties such as parent. The purpose of this study was to determine the best concentration of ZPT IAA and BAP on the growth of purple sweet potato. The experimental design used factorial RAL with 2 factors including IAA (Indole-3acetic acid) and BAP (6-Benzyl Amino Purine), each factor consisting of 9 treatments and 3 replications. The results of the addition of ZPT IAA showed that the callus appearance time of 4 DAP, intermediate callus texture, and callus diameter 8 WAP were significantly different with the optimal concentration of 0.2 mg/l. The addition of ZPT BAP showed a significantly different callus diameter at 8 WAP with the optimal concentration of 1 mg/l. The interaction of ZPT IAA and BAP administration showed no significant difference in the time of callus appearance, callus texture, and callus diameter.

Key words: callus, concentration, ZPT.