

**The Effect of Giving ZPT BAP and IAA on the Induction of Red Potato  
Shoots (*Solanum tuberosum* L.) In Vitro**  
Supervised by Rudi Wardana S. Pd. M. Si.

**Hania Firdausa**

Food Crop Production Technology Study Program  
Department of Agricultural Production

***ABSTRACT***

*Potato (*Solanum tuberosum* L.) is one of the plants that uses its tubers and is broadly developed. In vitro spread of potato plants enjoys a few benefits, for example, quick creation, the capacity to deliver huge amounts, not occasional, and the seeds created are sans microorganism. One work to further develop seed quality in vitro is by adding development controllers. Subsequently, it is important to explore the fitting convergence of ZPT for potato plant development. This exploration was directed at Politeknik Negeri Jember in September - December 2023. The examination configuration utilized was a Totally Randomized Plan (CRD) factorial with 2 elements, in particular ZPT BAP and IAA. ZPT BAP treatment comprised of 3 levels, in particular 0.5 mg/L, 1 mg/L, and 1.5 mg/L. While ZPT IAA has 3 levels, in particular 0.1 mg/L, 0.2 mg/L, and 0.3 mg/L. The information got were dissected by ANOVA followed by the DMRT test. The outcomes showed that the organization of ZPT BAP and IAA fundamentally affected the underlying appearance of shoots, shoot level, and number of leaves. The treatment with 0.5 mg / L BAP and 0.3 mg / L IAA at 5.00 HST resulted in the fastest shoot emergence on average. The typical biggest number of shoots in the 1 mg/L BAP + 0.2 mg/L IAA treatment was 4.93 cm. In the treatment with 1.5 mg/L BAP and 0.2 mg/L IAA, the highest average number of leaves was 23.00.*

*Key words: BAP, IAA, In vitro, Red Potato*