

**Interaction of Giving ZPT NAA and BAP on Induced Growth
Potato Shoots (*Solanum tuberosum* L.) Granola
Varietie Flowering In Vitro**

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ABSTRACT

*Potatoes (*Solanum tuberosum* L.) are a plant that is in great demand, especially the flower Granola variety. Propagating potato plants using in-vitro tissue culture has many benefits, such as producing pathogen-free plants. To improve the quality of potato seeds, it is necessary to add growth regulators. Therefore, it is necessary to carry out research on increasing the PGR concentration that is suitable for the growth of potato plants. This research was carried out at the Jember State Polytechnic in September 2023 – December 2023. The research design used was a factorial Completely Randomized Design (RAL) with 2 factors, namely ZPT NAA and BAP. NAA PGR treatment consists of 3 levels, namely 0.5, 1, 1.5 mg/l. while ZPT BAP has three levels, namely 1, 2, 3 mg/l. The interaction showed that the results were not significantly different for the time callus appeared, the time shoots appeared, number of shoots, shoot height, number of leaves, number of roots, and root length. The results of the study showed that administration of 0.5 mg/l NAA and 1 mg/l BAP showed the fastest callus appearance time of 9 HST. In the shoot height variable, the best concentration of NAA was 1.5 mg 12.34 cm but was not significantly different from a concentration of 0.5 mg/l and significantly different from a concentration of 1 mg/l. The highest number of leaves had 11.22 pieces with a concentration of 3 mg/l BAP, but this was not significantly different from 2 mg/l. An NAA concentration of 1.5 mg/l produced the most leaves with 11.33 leaves but this was not significantly different from a concentration of 1 mg/l.*

Key words: *Concentration, Shoots, ZPT*