Growth Hormone Effects in Plantlet Micropropagation of Several Potato (*Solanum tuberosum*) Varieties

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Abstract: Potato (*Solanum tuberosum* L.) is a horticulture plant that grow in the highland, which belong to the Solanaceae family, and is one of the world's main foodstuffs after rice, wheat, and corn, because of its advantages in supplying approximately 12 essential vitamins, minerals, proteins, carbohydrates, and iron. The demand of Potato from year to year tends to increase with population growth. In this study, the addition of growth hormone in Murashige and Skoog media modification to plantlet Potato (*Solanum tuberosum* L.) Atlantic Variance, Granola and Medians was described. MS medium was used as a potato growing medium (*Solanum tuberosum* L.) by hormone addition method which helped multiply the roots and accelerate plantlet height. The introduction of hormone levels were BAP (Benzil Amino Purine) 3 mg, NAA (Napthalene Acetic Acid) 1 mg, GA3 (Gibberelin) 0.1 mg, respectively. By using ANOVA Factorial analysis, the result of research showed that the significant level was α 0,05. The results showed that (1) Atlantic seed has more roots compare with the other varieties. (2) The control group has more roots compare with the hormone induced groups (3) The interaction of potato varieties with hormones affected the number of roots with p = 0,000. (4) The different variety of potatoes give influence to the height of potato plantlets. (5) The control group has higher height of plantlets compare with the hormone induced group (6) The interaction of potato varieties with hormones affected the height of the plantlet with p = 0,000.

Keywords: Potato (*Solanum tuberosum* L.), MS Media, ZPT, potato varieties, tissue culture