EFFECT OF BENZYL AMINO PURINE AND COCONUT WATER ON SHOOT GROWTH TOBACCO (Nicotiana tabacum L.) VARIETY KASTURI IN VITRO

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ABSTRACT

Tobacco (Nicotiana tabacum L.) is a plant in the Solanaceae family and has been widely cultivated in Indonesia. Tobacco has various varieties, one of which is the Kasuri variety. one of the uses of kasturi tobacco varieties is as a blending material in the production of clove cigarettes and is one of the very good tobacco varieties to be developed in Jember Regency. In 2019 the area of Voor Oogst Kasturi tobacco land expanded by 10,427.05 hectares but experienced a decrease in tobacco productivity, namely 1.43 quintals per hectare. On this basis, efforts can be made to overcome the problem of declining tobacco productivity by providing seeds on a large scale and in a short time and providing quality seeds, one of which uses tissue culture techniques. The purpose of this study was to determine the effect of Benzil Amino Purin and coconut water on the growth of tobacco buds (Nicotiana tabacum L.) Kasturi variety. And to determine the optimum concentration between Benzil Amino Purin and coconut water on the growth of tobacco buds (Nicotiana tabacum L.) Kasturi variety. This research was conducted in June-August 2023 at the Jember State Polytechnic Tissue Culture Laboratory. This research design uses Factorial Randomized Complete Design (CRD) using 2 factors, namely BAP (0 ppm, 1 ppm, 2 ppm, 3 ppm) and Coconut Water (0 ml/l, 50 ml/l, 75 ml/l, 100 ml/l). There are 16 combinations and 3 replicates, each replicate has 1 unit. The results showed that the P2N1 treatment (2 ppm BAP + 50 ml/l coconut water) was the best combination for shoot emergence time, P2N2 (2 ppm BAP + 75 ml/l coconut water) was the best combination for the number of shoots, P2N1 (2 ppm + 50 ml/l coconut water) was the best combination for shoot height.

Keywords: Kasturi Tobacco, Tissue Culture, BAP, Coconut Water