

***The Effect Of BAP And IAA On Multiplication
Black Potato Shoot (Plectranthus rotundifolius)
In Vitro***

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ABSTRACT

Black potato (Plectranthus rotundifolius) is one alternative food source with a high carbohydrate content that has great potential to be developed. Black potato production has only reached 5-15 tons per hectare due to the unavailability of adequate cultivation techniques, superior varieties, good quality seedlings and not much research has been conducted on black potato cultivation. Therefore we need an alternative propagation with tissue culture. The purpose of this study was to determine the concentration of ZPT BAP and IAA that are appropriate for multiplication of black potato shoots. This research uses a completely randomized design (CRD) with 2 factors, 9 treatment combinations, and 4 replications. The first factor, BAP ZPT consists of 3 levels, 2; 4; and 6 mg / l. The second factor, namely IAA ZPT consists of 3 levels, 0.2; 0.4; and 0.6 mg / l. The results showed the added of the ideal BAP concentration to the number of shoots with an average of 11,75 shoots, stem diameters with an average diameter of 0.20 cm, the number of trunk sections with an average of 9,50 segments and a long average of 5,60 cm,, where for the optimal number of shoot parameters the concentration was 4 mg / l, root length parameters and the number of stem segments optimal concentration was 2 mg / l. Whereas the optimal diameter of the stem diameter parameter is 6 mg / l. The added of the concentration of IAA with a concentration of 0.6 mg/L is ideal against the parameters of the number of stem sections with an average of 9,58 sections. And the combination of BAP and IAA treatment with BAP concentration of 6 mg / l and IAA of 0.4 mg / l is optimal for the bud's current parameters with an average of 4.25 days after planting. While the combination of BAP 2 mg / l and IAA 0.2 mg / l is optimal for the root number parameter with an average of 23.25 roots.

Keywords : BAp, IAA, Black potatoes.