Banana Cultivars Microshoot Induction and Plantlet Formation Using Cytokinin and Auxin

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Author Order	1 of 3
Accreditation	1
Abstract	Banana is a horticultural plant with very high potentials, which contains carbohydrates and vitaminsÃ‚Â that are useful in fulfilling people's food and nutritional needs. Hence, this study aims to produce superior banana seedlings and develop a protocol for their mass production using a plant in vitro culture technique. This was a two stage-experiment i.e. microshoot production and plantlet formation.Ã‚Â The result showed that Gebyar cultivar produced more shoots than the Kepok Kuning cultivar,Ã‚Â with an average of 4.25 microshoots explant-1. However, Kepok Kuning produced more leaves than Gebyar, with an average of 4.64 leaves plantlet-1. Banana shoots cultured on the media containing Indole-3-acetic acid (IAA) at a concentration of 2.5 Ã‚ÂµM produced the highest leaves number. Meanwhile, those cultured on the media containing 1-Naphthalenesacetic acid (NAA) at a concentration of 7.5 Ã‚ÂµM produced the highest roots number. A Murashige and Skoog (MS) medium supplemented with 6-Benzylaminopurine (BAP) up to 30 Ã‚ÂµM and the one supplemented with 7.5 ÃŽÂ¼M of NAAÃ‚Â are suitable for Kepok Kuning and Gebyar cultivars micropropagation with regard to microshoot induction and plantlet formation, respectively.
Publisher Name	Universitas Sebelas Maret
Publish Date	2021-06-06
Publish Year	2021
Doi	DOI: 10.20961/carakatani.v36i2.50425
Citation	
Source	Caraka Tani: Journal of Sustainable Agriculture
Source Issue	Vol 36, No 2 (2021): October
Source Page	249-258
Url	https://jurnal.uns.ac.id/carakatani/article/downloadSuppFile/50425/6660
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