

Turkish Journal of Agriculture and Forestry

Turkish Journal

of

Agriculture and Forestry

In Vitro Propagation of Some New Banana Types (*Musa* spp.)

Hamide GÜBBÜK*, Mustafa PEKMEZCİ

Department of Horticulture, Faculty of Agriculture, Akdeniz University 07059 Antalya -
TURKEY

 [Keywords](#)
 [Authors](#)



agric@tubitak.gov.tr

[Scientific Journals Home Page](#)

Abstract: Three newly selected superior banana types were used to study the effects of different cytokinin and auxins on shoot multiplication and rooting. Benzylaminopurine [(BAP) (5, 10, 20 and 30 μ M)] and thidiazuron [(TDZ) (0.4, 1, 2 and 3 μ M)] were tested alone and with 1 μ M indoleacetic acid (IAA) for the propagation stage. We compared basal Murashige and Skoog (MS) medium, active charcoal (5 g l⁻¹), indole-3-butyric acid (IBA) and naphthaleneacetic acid (NAA) for rooting. Shoot proliferation and elongation were significantly greater with TDZ than with BAP all 3 types. Furthermore, each cytokinin with IAA increased shoot proliferation and elongation more than their use alone. BAP below 20 μ M or TDZ below 1 μ M did not increase shoot proliferation, and BAP over 20 μ M and TDZ over 2 μ M suppressed shoot elongation. Charcoal alone was better for rooting than auxin treatments or MS medium alone. In conclusion, supplementation of 2 μ M TDZ, and 1 μ M IAA or 20 μ M BAP and 1 μ M IAA on MS medium, followed 5 g l⁻¹ charcoal at the rooting stage were the best combinations for the in vitro propagation of banana types.

Key Words: Banana, *Musa* spp., tissue culture, thidiazuron, active charcoal

Turk. J. Agric. For., **28**, (2004), 355-361.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Agric. For., vol.28, iss.5.](#)