

INITIATION MEDIA FOR *IN VITRO* CONSERVATION OF RARE (*Musa spp.*) BANANA CULTIVARS: 'ATAMURU' AND 'MUWANETHIKESSEL'

K.P.A. Dissanayake¹, W.L.G. Samarasinghe² and D.M.D. Dissanayake¹

¹ Department of Plant Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.

² Molecular Biology Division, Plant Genetic Resource Centre, Gannoruwa, Peradeniya, Sri Lanka.

Musa, which includes banana and plantain, is an economically important genus. Germplasm conservation of *Musa spp.* has become important due to its great richness of diversity in Sri Lanka. Although, seed is the most common storage material, it is not applicable to banana germplasm conservation due to its low fertility and parthenocarpic nature. Therefore, *in vitro* storage is a viable alternative. This study was conducted with an objective of identifying initiation media for *in vitro* conservation of rare banana varieties, 'Atamuru' and 'Muwanethikesel'. The experiment was conducted in Completely Randomized Design with four treatments and seven replicates in each. This research was conducted in the tissue culture laboratory at Plant Genetic Resource Center, Gannoruwa from May to August 2008. Shoot-tips of 2.5-3 cm in length excised from field-grown suckers were used as explants. The explants were cultured in Modified MS medium supplemented with four concentration of 6-benzylaminopurine (BAP) (3.5, 4, 4.5, 5 mg/l). Leaf primordia elongation, colour development of leaf primordia, weight gain of cultures survival percentage, meristem growth and bud initiation were recorded. The results revealed that the best performance of Muwanethikesel and Atamuru was given by the explants grown in Modified MS medium supplemented with 4 mg/l and 5 mg/l BAP respectively.

Key words: *Musa spp.*, *In Vitro* conservation, MS medium, BAP, Shoot tips