Multiple shoots formation of an important tropical medicinal plant, Eurycoma longifolia Jack

ABSTRACT

Eurycoma longifolia Jack is well known among the communities in Southeast Asia because of its aphrodisiac properties and its effectiveness as the cytotoxic, anti-malarial, anti-ulcer, anti-tumor promoting and anti-parasitic agent. Micropropagation through direct plant regeneration from in vivo shoot tip explants was carried out. The highest regeneration percentage (90%) and multiple shoots formation were obtained with the basal Murashige and Skoog (MS) medium supplemented with 5.0 mg l-1 kinetin. Roots were induced after 14 days of culture in the basal MS medium supplemented with 0.5 mg l -1 of indole-3-butyric acid. Plantlets regenerated from shoot tip explants survived well with no morphological differences from parent plants after two months of transplantation to soil. Copyright © 2005 The Japanese Society for Plant Cell and Molecular Biology.

Keyword: Eurycoma longifolia; Micropropagation; Multiple shoots; Shoot tip