



Effect of Growth Regulators on Direct Clonal Propagation and Analysis of Total Phenolic Content of Wild and Propagated *Mucuna pruriens*

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ABSTRACT

Mucuna pruriens is an important vegetable cover crop. Almost every part of the plant is thought to contain L-3,4 dihydroxyphenylalanine (L-Dopa). The present study describes a quick and dependable technique for high-constancy miniature spread. Helper nodal explants were refined on Murashige and Skoog's (MS) media boosted with different groupings of cytokinins from 15-day-old refined explants. Throughout the primary culture on 35 to 45 mg/l 6-benzyl amino purine (BAP) greatest no of shoots was delivered. The number of shoots expanded when the flawless shoots were exposed to re-refine on a similar hormonal medium. The stretched shoots created a limit of roots on half-strength MS medium enhanced with 20-40 mg/l naphthalene acidic corrosive (NAA). The Plantlets were adjusted by moving them first to peat greenery: manure (1:1) combination further with sand: soil (1:1) blend, recording 90% endurance. This framework gives high constancy miniature engendering framework for proficient and fast miniature proliferation and evaluation of phenolic content of this significant green compost cover crop with restorative properties.

Keywords: Auxiliary bud, Acclimatization, Cytokinin, Multiple shoots, Rapid micro-propagation.

INTRODUCTION

The class *Mucuna* has a place with the family *Fabaceae* (Leguminosae) and incorporates around 150 types of yearly and enduring vegetables of pantropical circulation. Numerous types of the class offer an amazing source of cover harvest and green fertilizer, notwithstanding their customary practice as feed and food (Janardhanan and Lakshmanan, 1985; Mohan and Janardhanan, 1993; Capo-chichi et al., 2003). Practically every one of the animal varieties is accounted for to contain L-3,4-dihydroxyphenylalanine (L-DOPA), a non-protein corrosive that goes about as antecedent for the synapse dopamine, utilized in the treatment of Parkinson's illness (Manyam, 1995). Notwithstanding this *M. pruriens* is

a significant therapeutic plant used to deal with some illnesses like intestinal sickness, epilepsy, Parkinson's infection, the runs, helminthiasis, fruitlessness, snakebite, scorpion stings, and elephantiasis (Lampariello et al., 2011; Okafor et al., 2013; Oyeyemi et al., 2019). It is developed as viable green fertilizer to renew crushed soil because of its capacity to collect supplements in different conditions (Sathiyarayanan et al., 2007; Lorenzetti et al., 1998) and it displays allelopathy to weed development and is productive in diminishing the nematode worm populace in ranches (Lampariello et al., 2011; Pugalenthi et al., 2005). Several examinations have shown that L-3,4 dihydroxy phenylalanine(L-DOPA), lectin, is flavones, and a few alkaloids confined in *M. pruriens* seeds are answerable for