

## ***In-vitro* Shoot Regeneration of *Pterocarpus marsupium* (Gammalu)**

**L.N.S. Silva\*, P.C.D. Perera and Nilanthi Dahanayake**

<sup>1</sup>Department of Agricultural Biology, Faculty of Agriculture, University of Ruhuna, Mapalana  
Kamburupitiya, Sri Lanka

### **Abstract**

*Pterocarpus marsupium* (Fabaceae) is a multipurpose leguminous tree, commonly called as Gammalu. The wood is useful in chest pain, body pain, indigestion and the paste of seed and wood is useful in diabetic. Its propagation through seeds; germination rate is very poor due to impermeable seed coat and stem cuttings is also difficult. Due to these factors, the species is at the verge of extinction and will extinct soon if suitable steps are not taken for its conservation. The present study was carried out to find suitable concentration of Cytokinins (BAP) for shoot multiplication of *Pterocarpus marsupium*. Mature seeds were germinated on MS (Murashige and Skoog) medium. The cotyledonary nodes as explants were cultured on MS medium supplemented with BAP and Auxins (NAA), in combinations (0-Control, 0.5, 1.0, 1.5, 2.0mg/L BAP with 0.1mg/L NAA) for shoot induction. Five replicates per each treatment was carried out. Data were analyzed according to a CRD model using SAS (Version 9.1.3) software. Maximum shoot multiplication (3) per explant was achieved on MS medium fortified with BAP (1.5mg/L) and NAA (0.1mg/L) within minimum (16) days. MS medium without plant growth regulators was showed poor shoot regeneration (0.4) within higher number (27) of days. It can be concluded that, 1.5 BAP + 0.1 NAA can be use in large-scale production of plants and may useful to further *in vitro* experiments on *P. marsupium*.

**Keywords:** Cotyledonary node, *In vitro* shoot multification, *Pterocarpus marsupium*

**\*Corresponding Author:** nayanashiromisilva@gmail.com