

## PROTOCOL ESTABLISHMENT FOR MULTIPLICATION AND REGENERATION OF *POLYSCIAS FRUTICOSA* L. Harms. AN IMPORTANT MEDICINAL PLANT IN VIETNAM

Bui Dinh Thach, Le Nguyen Tu Linh, Diep Trung Cang, Trinh Thi Ben, Tran Thi Linh Giang,  
Nguyen Pham Ai Uyen & Ngo Ke Suong

Institute of Tropical Biology, Vietnam Academy of Science and Technology  
VIETNAM

### ABSTRACT

*Polyscias fruticosa* (L) Harm is one of the most common medicinal plants used by diverse cultures and tribal groups. An efficient protocol for rapid propagation of *Polyscias fruticosa*, of the family Araliaceae, was developed using leaf explants culture. The leaf explants cultured on Murashige and Skoog (MS) basal medium were supplemented with various concentrations and combinations of auxins and cytokinins. Callus induction was obtained within 4 weeks, 2,4-D at 3mg/l formed profuse callus and the degree was found to be the highest (+++++) among all the treatments. The best response to shoot induction, with maximum shoot number 8.21(mean number of shoot per explant) was obtained using 5.0 mg/l 6-benzyl aminopurine (BA) in combination with 0.1 mg/l Naphthalene Acetic Acid (NAA). *In vitro* shoots were rooted on 0.5mg/l of NAA supplemented medium. The rooted shoots were successfully acclimatized and established under natural conditions, with 74% survival rate.

**Keywords:** *Polyscias fruticosa*, medicinal plant, micropropagation, callus.