

## **SOME MORPHOLOGICAL, ANATOMICAL STUDIES AND EFFECTS OF HORMONES ON IN VITRO CULTURE OF CANAVALIA ROSEA (SW) DC.**

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### **ABSTRACT**

The current investigation encompasses some morphological, anatomical and tissue culture of *Canavalia rosea* (Sw) DC (leguminosea) which has the potential for soil stability especially on slopes. Morphological and anatomical studies comprised leaf venation, Scanning Electron Microscopy (SEM), histology analysis and epidermal peeling. Results obtained showed that the leaf dorsiventral with bipinate venation and amphistomic with paracytic type stomata embedded below the epidermis. Anatomical studies of leaf and root were also done to determine the presence of specific cells such as cuticle, oil gland, structure of vascular system, shape and arrangement of the cells and other related structures. Regeneration from shoots was accomplished from leaf and stem explants within 2 months after culturing in media containing BAP only (1.0-4.0 mg/l). High percentage of regeneration (43.75%) from stem explants was observed on MS media supplemented with 2.0 mg/l BAP. Roots were formed on MS media containing a combination of 1.0mg/l NAA and 0.5mg/L BAP and on MS media with NAA only. Simultaneously, callus were induced on MS media supplemented with BAP. Longitudinal sections of the callus showed the existence of meristematic cells, with leaf and shoot primordia.

**Keywords:** Scanning Electron Micrograph, Histology, Micropropagation , BAP, NAA.