

## Morphological and biochemical investigation of five *Solanum* species

A. JOHN DE BRITTO, D. HERIN SHEEBA GRACELIN, T. LEON STEPHAN RAJ AND P. BENJAMIN JEYA RATHNA KUMAR

Department of Plant Biology and Biotechnology, St. Xavier's College (Autonomous), PALAYAMKOTTAI (T.N.) INDIA

E-mail: bjohnde@yahoo.co.in

(Received: October, 2010; Accepted : November, 2010)

Solanaceae is one of the families with a number of important agricultural plants as well as many toxic plants. In the present investigation a comparative and comprehensive leaf, branch, fruit and seed have been analyzed and complemented with leaf proteins for identifications. As expected taxonomical characters within *Solanum* species revealed great morphological differences. Some *Solanum* species are phenotypically close to each other, but have different taxonomic status. These morphological similarities lead to difficulty in identification of these species. Hence, a study was undertaken to understand the similarities and dissimilarities at morphological and protein level. Molecular weight of the protein of the five species varied from 199.53kD to 1.78kD. The result showed *S. surattense* and *S. trilobatum* were closer morphologically whereas, *S. surattense* and *S. melongena* were closer at protein level.

Key words : Solanaceae, SDS-PAGE, Paired affinity, Similarity, Phylogeny

John De Britto, A., Herin Sheeba Gracelin, D., Leon Stephan Raj, T. and Benjamin Jeya Rathna Kumar, P. (2011). Morphological and biochemical investigation of five *Solanum* species. *Asian J. Bio. Sci.*, **6**(1) : 1-6.