S Padma et al., J Biotechnol Biomater 2016, 6:7(Suppl)
http://dx.doi.org/10.4172/2155-952X.C1.064

12th Euro Biotechnology Congress

Role of plant tissue culture in conservation and reintroduction of *Sauropus androgynous* (L.) Merr

S Padma and D H Tejavathi
Bangalore University, India

In order to bring about sustainable resource conservation, management and improvement of useful medicinal plants, it is essential to adopt different economical approaches. One such basic approach includes plant tissue culture which forms an integral part of any plant biotechnological activity. In this regard one of the most important Southeast Asian plant *Sauropous andrgynous* was subjected to few tissue culture procedures in order to conserve and reintroduce its improved version. Recent advances in the development of protocols for *in vitro* culture and genetic manipulation have provided new avenues for the development of novel varieties of *Sauropus androgynous*. *S. androgynous* is a member of Euphorbiaceae, popularized as multivitamin plant and consumed as green leafy vegetable due to its rich nutritional profile including proteins, vitamins, minerals, essential amino acids, etc. The plant is cautioned for excessive consumption due to the presence of Papaverine alkaloid which at higher concentration leads to Bronchiolitis obliterans. Optimized techniques of nodal cultures on Murashige and Skoog's and Phillips and Collins media with various growth regulators has supplemented the conventional propagation methods in commercial production resulting in availability of improved *Sauropus* through both organogenesis and somatic embryogenesis. The development of regeneration systems for *S. androgynous* has opened possibilities for developing genotypes with novel characters including low quantity Papaverine content which has facilitated conventional improvement programs thereby providing a valuable resource to the food a pharmaceutical industry. Based on this research, plant tissue culture techniques show promise for economical and convenient application in *Sauropus androgynous* breeding.

Biography

S Padma has completed her PhD degree in the year 2013 under the guidance of Dr. D. H. Tejavathi on *In vitro* regeneration and phytochemical studies in *Sauropus androgynous* (L.) Merr. She was awarded with a Research Fellowship in Science for meritorious students under UGC NON-SAP program. She has published three papers in national and international journals and has made presentations on her research work at many international and national conferences. She was conferred with "Young Scientist Award" at 4th international conference on medicinal plants and herbal products held at Johns Hopkins University, USA. 2012.

padmaseenappa@gmail.com

Notes: