Theme 5: Conservation, restoration and management of ecosystem

T5_Oral_01

EX-SITU CONSERVATION OF *LAVANDULA ANGUSTIFOLIA* USING *IN VITRO* TECHINQUES

Leelavathi D

M.E.S College, Malleswaram, Bangalore-560003

Lavandula angustifolia L. is a perennial shrub belonging to the family Lamiaceae. It is in great demand for the lavender oil it yields which is used in perfumery, cosmetics, flavouring and pharmaceutical industries. In order to meet the growing demand of lavender oil, *in vitro* techniques are being used as alternative method for large scale multiplication and ex-situ conservation. In the present investigation, *in vitro* axillary bud explants of *Lavandula angustifolia* were cultured on MS basal medium supplemented with BAP 8.88µM and NAA 2.68µM to induce multiple shoots. Further, these shoots were subcultured on the same medium to produce more number of multiple shoots. Well developed multiple shoots were cultured on MS basal medium fortified with BAP 8.88µM, IBA 4.92µM and NAA 2.68µM for root formation. The hardened regenerated plants were acclimatized - and were transferred to soil with 90% survival frequency.

The *in vitro* axillary buds were used for synthetic seed production using Sodium alginate and Calcium chloride as matrix and complexing agent for encapsulation of axillary buds of *Lavandula angustifolia.*

Keywords: *Lavandula angustifolia L., in vitro* propagation, hardening and encapsulation.