

## Regeneration and selection of root rot resistant *Coleus forskohlii* A threatened medicinal plant

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### Abstract

*Coleus forskohlii* Briq. of the family Lamiaceae yields a valuable secondary metabolite known as forskolin which is a labdane diterpenoid.. *Coleus forskohlii* is the only known source of this compound. Forskolin is used in medicine for the treatment of glaucoma, congestive cardiomyopathy and asthma.

Morphogenic callus was induced from young leaves on MS medium augmented with NAA and BA. These calli, when subcultured on MS with KN alone gave rise to shoots. The regenerated shoot developed good root system on MS medium fortified with NAA. The fully grown plantlets were transferred to soil for acclimatization

*Coleus* plant is mainly infected by a fungi *Lasiodiplodia theobromae* which causes root rot disease. The fungal culture filtrate (FCF) of *Lasiodiplodia theobromae*, has been used in regeneration media to find the MIC and further to select resistant plants to the pathogen. In the present study 40% FCF in the medium showed maximum inhibition and is therefore considered as the MIC level of *Coleus forskohlii*. This data could prove to be useful for the future for selecting a resistant *C.forskohlii* plant against the root disease caused by *L.theobromae*.