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Title: Production and GC-MS trace analysis of methyl eugenol from endophytic isolate of*Alternaria* from rose

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Abstract

A total of fifty-four endophytic fungi were isolated from living symptomless leaves, stem and petals of*Rosa damascaena* Mill. (Rose). Rose is commercially exploited for the essential oil which is used in flavour and fragrances. Methyl eugenol [1,2-dimethoxy 4-(2-propenyl) benzene] constitutes about 1.9% composition of the rose oil and also acts as a precursor for the synthesis of methyl DOPA an important vasodilator. Besides this, it is an important bioactive compound with wide range of applications in pharmaceutical and flavouring industries. So far, methyl eugenol has been extracted either from rose oil or synthesized. During the present investigation GC-MS revealed the production of methyl eugenol by an*Alternaria* species isolated as an endophyte of cultivated and wild rose. The present work indicates that endophytes not only duplicate the secondary metabolite composition of host plant but can also serve as important tool for the preservation of biodiversity.

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