



两种植物内生菌分离的影响因素研究

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Research on the influence factors on isolation of endophytes in two medicinal plants

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摘要 在开展核桃树(*Juglans regia* L.)和飞龙斩血(*Toddalia asiatica*(L.)Lam.)植物内生菌多样性研究过程中,对季节、区域、树龄和采集部位等影响内生菌分离的因素进行研究.研究表明,在春夏之交宿主植物新陈代谢旺盛时采集的较大树龄材料,分离获得更多的内生菌种类和数量.采用5种不同的消毒剂,以不同的消毒浓度和消毒时间进行试验,探讨植物内生菌分离培养的最佳条件.试验表明,选用3.0%的H₂O₂溶液消毒30~120 s,0.5%的KMnO₄溶液消毒30~120 s,75%的乙醇溶液消毒60~120 s,4%的漂白粉消毒30~120 s,对试材进行表面消毒,效果较好.从而为进一步开发利用药用植物内生菌提供了基础资料.

关键词: 植物内生菌 核桃树 飞龙斩血 表面消毒 影响因素

Abstract: We investigated the endophytic diversity, the factors affecting isolation and cultivation of endophytes in *Juglans regia* and *Toddalia asiatica*, such as seasons, areas, age of trees and sampling sites. In the end of Spring and the beginning of Summer, it was easier to obtain more species of endophytes when the hosts with an old tree-age. The five different disinfectants were tested with different concentrations and time, and the optimum condition of the isolation and cultivation of endophytes were screened out in the present study. It was showed that the approaches disinfecting samples got good effect, with 3.0% H₂O₂ for 30—120 s, 0.5% KMnO₄ for 30—120 s, 75% ethanol for 60—120 s and 4% bleaching powder for 30—120 s. This attempt was also to provide the basic data for the further development and utilization of endophytes in medicinal plant.

Key words: plant endophyte *Juglans regia* L. *Toddalia asiatica*(L.) Lam. surface sterilization influence factors

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