



中文标题 检索 跨刊检索

巫山淫羊藿分蘖芽组织培养研究

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中文摘要:目的:建立巫山淫羊藿的组培快繁体系,为实现其工厂化育苗提供理论依据。方法:以巫山淫羊藿分蘖芽为外植体,MS、B5、WPM为基本培养基,添加不同浓度6-BA、NAA、GA₃等植物生长调节物质,对芽的诱导与增殖条件进行了系统研究。结果:芽适宜的消毒方法为75%乙醇消毒30 s,再用0.1% HgCl₂连续2次消毒(4+2) min,污染率可控制在5%以内,存活率为75%。芽诱导适宜的培养基为WPM+6-BA 2.0 mg·L⁻¹+NAA 0.1 mg·L⁻¹+GA₃ 0.5 mg·L⁻¹,诱导率为75.5%,且基本培养基和6-BA对诱导率的影响达到极显著水平;芽增殖的适宜培养基为WPM+6-BA 2.0 mg·L⁻¹+NAA 0.5 mg·L⁻¹,增殖系数为3.3,最佳生根培养基为1/2 WPM+IBA 0.5 mg·L⁻¹+0.05%活性炭,生根率为90%,每株3~6条根,苗生长健壮。结论:筛选出了分蘖芽适宜的消毒方法及不定芽诱导、增殖和生根适宜的培养基,建立了巫山淫羊藿分蘖芽的组培快繁体系。

中文关键词:巫山淫羊藿 组织培养 丛生芽 植株再生

Tissue cultivation of tiller buds of *Epimedium wushanense*

Abstract: Objective: To establish the rapid tissue propagation system of *Epimedium wushanense*, in order to provide theoretical basis for industrialized seed cultivation. **Method:** Tiller buds *E. wushanense* were used as explants, with MS, B5, WPM as basic media, and added with different concentrations of plant growth regulators such as 6-BA, NAA and GA₃ in order to conduct a systematic study on induction and propagation conditions for tiller buds. **Result:** The suitable method for sterilizing bud was to disinfect with 75% ethanol for 30 s, and then treated with 0.1% HgCl₂ for (4+2) min for consecutively twice, which could control the pollution rate below 5% and the survival rate above 75%. The optimal medium for bud induction was WPM+6-BA 2.0 mg·L⁻¹+NAA 0.1 mg·L⁻¹+GA₃ 0.5 mg·L⁻¹, with the induction rate of 75.5%; meanwhile, the basic medium and 6-BA showed significant effect on the induction rate. The propagation medium suitable for buds was MS+6-BA 2.0 mg·L⁻¹+NAA 0.5 mg·L⁻¹, with the propagation rate of 3.3. The optimal growth of rooting medium was 1/2 WPM+IBA 0.5 mg·L⁻¹+activated carbon(0.05%), with the rooting rate of 90%, three to six strong seedlings in each plant. **Conclusion:** The disinfection method suitable for tiller buds and the medium combination suitable for induction, propagation and rooting of adventitious buds are screened out to establish the rapid cultivation system for tiller buds of *E. wushanense*.

keywords: *Epimedium wushanense* tissue culture clustered shoots plant regeneration

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