

玫瑰杂交花柱半离体培养研究

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Studies of Semi Vitro Culture of Hybridized *Rosa rugosa* Style

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摘要 以1份野生玫瑰种质为母本, 2个玫瑰栽培品种和2个月季品种为父本进行杂交, 取杂交后的花柱进行半离体培养, 并采用荧光显微技术观察花柱中花粉管的生长状况。结果表明: (1) 玫瑰花柱半离体培养的最适培养基为15%蔗糖, 0.005%硼酸, 0.1%琼脂, pH 7.0。(2) 授粉后4 h取花柱培养的效果较好。(3) 花柱截取长度对种间杂交组合的花柱半离体培养结果的影响明显, 只有截取花柱上部1/3进行培养时能长出少量的花粉管。(4) 授粉花粉萌发率大于40%, 才能保证授粉的良好效果。(1 山东农业大学林学院, 山东泰安 271018; 2 山东农业大学园艺科学与工程学院, 山东泰安 271018)

关键词: 玫瑰 月季 花柱半离体培养 荧光显微观察

Abstract: The study took one wild germplasm of *Rosa rugosa* as female parent, two cultivars of *R. rugosa* and two cultivars of rose as male parents. After the hybridization, we took the hybridized styles to culture and employed fluorescent microscope to observe pollen tube growth in the styles. The results indicated that 15% sucrose, 0.005% H₃BO₃, 0.1% agar, and pH 7.0, were optimal for pollen tube growth. If we excised hybridized styles to culture when it reached 4 hours after pollination, the consequent was better. For the interspecific hybridized combinations, the effect of style cutting length on the results of semi vitro culture of style was significant. There was only a small amount of pollen tubes through the incisions when we cultured one third-length styles. To guarantee good pollination result, the germination rate of pollen which was used for pollination must be above 40%.

Keywords: *Rosa rugosa*, rose, semi vitro culture of style, fluorescent microscope observation

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