生命科学

崇明水仙(*Narcissus tazetta* var. *chinensis*)不同外植体分化能力与鳞茎增大初探

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摘要 以崇明水仙鳞茎的上、中、下部、嫩叶和幼嫩花序为外植体,研究其在离体培养系统中的再分化能力,结果表明,带鳞茎盘的鳞茎和幼嫩花序最容易分化出小鳞茎. 以组培获得的带鳞茎盘的鳞茎为材料建立快繁体系,40 d内小鳞茎数目增加3倍;并发现浓度适合的KH₂PO₄及暗培养能促进小鳞茎增大. 组织学研究结果显示,组培水仙与大田生长水仙的顶端分生组织的形态结构不同,前者细胞分层不明显,细胞核大且染色较深.

关键词 崇明水仙;外植体;分化能力;鳞茎增大

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Differentiation of different explants and enlargement of tissue culture bulb of narcissus at Chongming (*Narcissus tazetta* var. *chinensis*) (Chinese)

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Abstract

This paper studied the de-differentiation and differentiation of various explants such as bulb, leaf and infancy inflorescence of narcissus (*Narcissus tazetta* var. *chinensis*). The results showed that infrastructure and infancy inflorescence of narcissus were the best explants. When the infrastructure of adventitious buds was used as explants, the quantity of buds increased three times in forty days. Additionally, it was found that KH₂PO₄ of certain concentration and dark conditions were favorable to enlargement adventitious buds. The anatomic structure of shoot apical meristem of bulb from field was different from that of tissue culture bulb, which might be the reason why tissue culture bulbs were very hard to enlarge.

Key words <u>narcissus (Narcissus tazetta var. chinensis)</u> <u>explants</u> <u>differentiation</u> <u>bulb</u> <u>enlargement</u>

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