

园艺—研究报告

外源激素对鸡冠花离体培养及试管成花的影响

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摘要:

本文以鸡冠花试管苗去顶芽茎段为试料, 探讨了MS培养基中添加5种外源激素 (IAA、NAA、6-BA、KT、GA3) 对鸡冠花试管成花的生物学效应。结果表明: 生长激素IAA与NAA对鸡冠花的生根和成花有促进作用, IAA 0.5 mg/L、NAA 1.0 mg/L时成花率均可达到100%, 且以IAA 0.5 mg/L时单株成花数最高; KT对植物的分化和开花有促进作用, 1.0 mg/L时开花率达到100%, 而6-BA对鸡冠花生根与成花有抑制作用; GA3有利于鸡冠花试管苗花芽诱导形成, 当浓度为0.5~1.5 mg/L时, 成花率均为100%。鸡冠花试管苗的生根状况对其成花有一定的影响, 生根率与成花率、平均单株花数呈极显著正相关。

关键词: 试管成花

Effects of Exogenous Hormone on Culture and Flowering of Celosia Cristat in Vitro

Abstract:

With the shoots culture in vitro as explants, the effects of 5 exogenous Hormone on growth and flowering of Celosia Cristat in vitro were studied. The results showed that IAA and NAA could promote the rooting and flowering in vitro, the flowering rate after 30 d of culture was 100% in medium of MS+IAA 0.5 mg/L or NAA 0.1 mg/L. KT 0.5~1.5 mg/L promoted differentiation and blooming, but 6-BA had inhibition for flower bud of plantlet. GA3 profited for root inducing and flower formation, all the plantlets flowered in MS medium added GA3. Rooting and flowering of Celosia Cristat in vitro had correlation characteristic, rooting rate was positively correlated with flowering rate (R=0.902, P<0.01) and flowering number (R=0.729, P<0.01).

Keywords: flower formation in vitro

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