研究论文

甘薯体细胞胚的发生和植株再生

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摘要 利用含不同浓度2,4-D的修改的MS培养基对7个甘薯(Ipomoea batatas Lam.)品种进行茎尖脱毒培养,产生了形态和解剖特征明显不同的3种愈伤组织,胚性愈伤组织的诱导频率与品种和2,4-D浓度有关。将胚性愈伤组织转移到不含激素的修改的MS培养基上,有3个品种的胚性愈伤组织进一步发育成鱼雷胚和子叶胚。其中高淀粉品种苏薯2号的子叶胚转移到合1.6%蔗糖和0.1微摩尔/升NAA的修改的MS培养基上能发育成植株,移入土壤中能正常生长发育。

关键词 <u>甘薯,体细胞胚发生,植株再生</u> 分类号

Somatic Embryogenesis and Plant Regeneration in Sweet Potato

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Abstract The detached shoot tips of 7 sweet potato genotypes were cultured onmodified MS medium with various concentrations for the elimination of virus. 3morphologically and anatomically distinct types of calli were obtained. It was foundth at the inducement frequently of embryogenic calli was related to the genotypes and concentrations of 2, 4--D used. When transferred to hormone-free medium, theembryogenic calli of 3 genotypes developed into torpedo-shaped or cotyledon-shaped embryoes. When the cotyledon-shaped embryoes of Sushu No.2 were placed on modifiedMS medium containing 1.6% sucrose and 0.1µmol/L NAA, they developed intoplantlets that grew normally when transplanted to the soil.

Key words Sweet potato Somatic embryogenesis Plant regeneration

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