

# 高粱幼胚培养及再生植株变异的研究

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**摘要** 高粱幼胚接种在ms培养基上培养。授粉后9-12天的幼胚是最好的诱导分化时期。所试验的20个不同高粱基因型,从愈伤组织分化再生植株的能力是不同的。这种分化能力是可遗传的。从=401-1品种的5个授粉后9-12天幼胚的小盾片愈伤组织分化的158株再生植株(RO),大部分是正常的,但也出现了一些变异株。R。的变异株在R1没有复现,但从某些Ro正常株而产生的R1穗行,出现了矮株和不育株变异。

**关键词**

**分类号**

## Studies on Culture of Immature Sorghum Embryos in vitro and Variations of Regenerated Plants

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### Abstract

Immature embryos of sorghum LSorghmv bicolor (L.) \_Nfoench] were cultured on the medium containing Murashige-Skoog (MS) mineral salts supplemented with 2,4-D and zeatin. Calli with shoots from scutellum were transferred onto the same nutrient medium but with IAA instead of 2,4-D. Immature embryos of 9.12 days after pollination appeared the best age to induce differentiation. Ability of regenerated plants from callus varied among 20 different sorghum genotypes. Two varieties, 401-1 and 625, were discovered to possess higher differentiated ability. This kind of ability was heritable.

158 regenerated plants (Ro) were gained from scutellum calli of 5 immature embryos with 9-12 days after pollination of 401-1 variety. Although growth of most regenerated plants (Ro) were observed as normal, some plants that have series variable characters such as morphological, physiological, fertility and cytological variations could be observed.

Each head row (R1) from Ro generation seed produced by self-pollination was planted in next year. In R<sub>1</sub> generation the variations that were observed in R<sub>0</sub> generation all disappeared. However, variations in R<sub>1</sub> generation from normal regenerated plants (R<sub>0</sub>), shorter plants and stemle, appeared.

### Key words

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