

## 小麦愈伤组织及再生植株的染色体变异

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收稿日期 修回日期 网络版发布日期 接受日期

**摘要** 对培养在含有不同的附加成分的MS培养基上的小麦愈伤组织染色体进行了跟踪研究。结果表明,在整个培养过程中各培养基上愈伤组织都有一定程度的染色体变异。在培养初期,高浓度2,4-D可增加愈伤组织中的染色体变异率AgNO<sub>3</sub>可降低染色体变异率。6-BA对培养初期愈伤组织染色体变异率没有显著影响。但高浓度6-BA可加大长期培养愈伤组织的超倍体细胞频率。蔗糖浓度对最初9代愈伤组织染色体变异率无显著影响。但之后,低浓度蔗糖培养基上亚倍体细胞频率明显减小。随着培养时间的延长,各培养基上愈伤组织中正常二倍体细胞的频率都有逐渐上升的趋势。在再生植株中,大部分核型正常,只有少数植株具有染色体数目或结构变异。有些核型正常植株也有表型变异。

**关键词** [小麦,愈伤组织,再生植株,染色体变异](#)

分类号

## Chromosome Variations of the Calli and Regenerated Plants in Common Wheat

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### Abstract

The chromosomes of wheat calli cultured on MS media containing different supplementary constituents were tracingly analyzed. A certain number of chromosome variation were found on each of the media throughout the cultured period. During the initial period of culture, high concentration of 2,4-D could increase, whereas AgNO<sub>2</sub> could decrease the frequencies of chromosome variations in the calli. 6-BA had no significant effect on chromosome variations in initially cultured calli. However, high concentration of 6-BA could increase the hyperploidy cell frequencies in long-term cultured calli. The concentration of sucrose had no obvious effect on chromosome variations in the first 9 passages. Thereafter however, hypoploid cell frequency on the medium with low sucrose was remarkably decreased. The frequencies of normal diploid callus cells on all the media increased gradually with the extension of culture time. The majority of the regenerated plants, are normal diploids, only a few have chromosome number or structure variations. Phenotypic variations are expressed on some of the regenerated plants with normal karyotype.

**Key words** [Wheat](#) [Callus](#) [Regenerated plant](#) [Chromosome variation](#)

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