

专论与综述

## 植物转基因整合座位的结构

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摘要

通过农杆菌和直接DNA转移技术所获得的转基因植株都具有复杂的转基因座位, 转基因整合染色体和染色体区段是随机的, 但组织培养的选择作用表现为非随机性, 偏向整合于染色体的基因富集区。转基因座位除少数含有完整的单拷贝转基因之外, 大多数转基因座位中外源转基因片段、基因组片段和填充DNA相间而存在。转基因座位中转基因及基因组DNA片段产生缺失、重复和染色体的重排, 转基因的完整性对转基因表达具有重要作用。

关键词 [农杆菌介导](#) [直接DNA转化](#) [转基因座位](#) [染色体重排](#) [旁侧序列](#)

分类号

## Structures of transgenic integration loci in transformed plants

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### Abstract

<P>The plants transformed by either <EM>Agrobacterium</EM>-mediated or directly delivered DNA transformation possess complex transgenic loci. The transgenes tend to be integrated into gene-rich regions on chromosomes due to selection of transgenic cells during tissue culture rather than integrated elsewhere randomly. Fragments of transferred DNA are interspersed with genomic DNA and filler DNA at most of transgenic loci except a few which contain complete single-copy of transgene. Analysis of transgenic loci flanking sequences indicated that deletion, duplication and chromosomal rearrangement often occurred for transgene and genomic DNA. The complete transgenic structure is important for its expression in transformed plants.</P>

**Key words** [Agrobacterium-mediated](#) [directly delivered DNA](#) [transgenic locus](#) [chromosomal rearrangement](#) [flanking sequences](#)

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