

水稻花粉植株非整倍体的细胞遗传学¹⁾

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摘要 在290裸水稻花粉植株中获得水稻非整倍体植株，频率为10.7%。其中初级三体为6.7%，四体为1.7%，单体为1.3%，缺体为1.0%；双三体为0.7%。额外染色体粗线期分析表明，”个初级三体分别归属于三体3，三体4，三体8，三体10和三体12。粗线期分析还鉴定了四体、双三体、缺体和单体的染色体组成。花粉母细胞减数分裂的染色体行为表明，非整倍体花粉植株的主要染色体畸变为粗线期的疏松配对、单价体；终变期的单价体和四价环；中期I的染色体拖曳及四价体；后期I的染色体桥和落后染色体。

关键词

分类号

Cytogenetics of Aneuploids Derived from Pollen Plants of Rice

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Abstract

The rice aneuploids were obtained from 290 pollen plants with the frequency of 10.7%.Among the obtained aneuploids, 6.7% were primary trisomics,1.7% tetrasomics,1.3% monosomics, 1.0% nullisomics and 0.7% double trisomics.Pachytene analysis on the extra chromosomes of 19 primary trisomics showed that they were triplo 3, 4,8.10 and 12. Four trisomics were unable to assign to the chromosome number due to their morphological and cytological markers that dislike the conventional trisomics. Thechromosomal complements were also identified by pachytene analysis in tetrasomics, double trisomics, nullisomics and monosomics. The chromosomal behaviour of PMC at moeiosis revealed that main chromosomal aberrations of aneuploids were loose pairing and univalent at pachynema; univalent and ring-of-four at diakinesis; stragglng chromosome and tetravalent at metaphase I; and bridge and laggards at anaphase I.

Key words

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