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大麦和普通小麦杂种再生植株的形态和染色体变化

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摘要　从大麦和普通小麦杂种一代的幼穗外植体得到愈伤组织，它们在继代培养18个月后仍保持高频率分化植株的能力。共得2,000余株再生植株，其中一部分移到土中后形成1,242个穗子，约有30％ 的穗子发生了形态变异．有少数穗子结实，共得种子104粒。对”株再生植株进行的细胞学检查表明，11株有28个染色体，8株的染色体组成发生了变化，包括染色体缺失、混倍体和染色体断裂。讨论了体细胞变异的原因和用组织培养方法获得能育双二倍体的可能性。

关键词

分类号

Morphological and Chromosomal Changes of Regenerated Plants from Inf lorescence Calli of Hordeum vul Bare x T riticum aestivum Hybrid

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Abstract

<FONT face=Verdana>The cali were induced from young inflorescence expla.nts of Hordeum vulgare ev.PF 5)1811 x Trtticum aestivum cv. Chinese Spring F, hybrid. After subeulturing for 18 months, these calli retained the ability t：o regenerate plants at high frequency and about 2,000 plantlets were -obtained. A part of regenerated plants were transplanted into soil and 1242 spikes were produced. Among them, about 30％ showed morphological variation. A few of spikes set seeds and in total 104 suds were harvested. Cytological examination of 19 regenerated plants revealed that 11 had 28 chromosomes identical to the donor plants and 8 exhibited chromosomal abnormality, including deficency,mixoploid and breakage. The ease of somatic variation and the possibility of obtaining fertile amphidiploid via tissue culture were discussed.</FONT>

Key words

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