遗传学报 1994 21 (6): 463-467 ISSN: 0379-4172 CN: 11-5450/R

外源DNA直接导入小麦及其在育种上的应用①

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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 本研究选用两个白料小麦品种作供体,提取其总DNA,采用花粉管直接携带法导入75(198)红粒品种受体植株。DNA导入的第一代(D1),目的性状的转化频率为1.75%和2.94%。 D2代变异率显著低于D1代。D1. D2代所得目的性状变异后代 ,按照常规育种程序进行D3代观察与鉴定,得到已稳定遗传的后代。从中选取保持原品种其它优良性状而籽粒为白色的变异类型混合脱粒,获得75(198)改良新品系。

关键词 外源DNA导入 小麦

分类号

Direct Transformation of Foreign DNA Uptake During Wheat Pollinating and Its Application in Crop Breeding①

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Abstract

Using a variety of red seed as the recipient ,and a variety of while seed as the donor.We treated the mature stigma of recipient with total DNA of donor,and then pollinated with the pollen of maternal parent. A strain of white seed whe at in this experiment.Most agronomy characters of the strain expect the colour of seed were similar to the recipient .The results show that such a mehod of direct speciffic characters in practical crop breeding. We also transferred a marked gene to give a proved on molecular level.

Key words Direct transformation Exogenous DNA Wheat

DOI:

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