

小麦-黑麦-中间偃麦草三属杂种F1及其花粉植株的细胞遗传学研究^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 2个小麦-黑麦-中间偃麦草三属杂种F1的减数分裂行为复杂, 中期 I 染色体平均每细胞构型为19.53 I +13.47 II +0.70 III +0.06 IV 和19.99 I +13.42 II +0.65 III +0.04 IV +0.01 V, 后期 I 染色体分配不平衡, 单价体并不一定排列在赤道板上, 产生各种类型的异常四分体。18株花粉植株染色体组成类型多样, 在2个花粉植株中分别观察到端体和等臂染色体。单倍体花粉植株中期 I 染色体配对频率较高, 交叉值为1.51-3.85。本文还讨论了三属杂种和花药培养的结合应用。

关键词 [远缘杂交](#) [花药培养](#) [细胞遗传](#) [中间偃麦草](#) [黑麦](#)

分类号

Cytogenetics of the Hybrids and Their Pollen Plants of Three Genera *Triticum Secale* and *Thinopyrum*^①

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Abstract

The meiotic processes were very complex in two F1 hybrids of the three gener *Triticum*, *Secale* and *Thinopyrum*.The chromosome configurations of PMC in the two hybrids were 19.53I+13.47II+0.70III+0.6IV and 19.99I + 13.42II+0.65III +0.04IV+0.01V respectively. In anaphase I, not all of univalents were orderly ranked on the equatorial plate and the chromosome didn't equally distribute to two poles.A variate of abnormal tetads were formed in telophase II.Of 18 pollen plants derived from the hybrids,there were many kinds of chromosome complement.One pollen PMC showed higher Xta. Which varied in the range of 1.51-3.84.Discusions were made on the significance of transfer useful genes from wild species into wheat cultivars via mothed combining wide hybridization and anther culture.

Key words [Wide hybridization](#) [Anther Culture](#) [Cytogenetics](#) [Thinopyrum](#) [intermedium](#) [Rye](#)

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