

## 甘蓝型油菜与诸葛菜属间杂种后代非整倍体类型及细胞遗传学研究

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**摘要** 在甘蓝型油菜与诸葛菜属间五倍体杂种后代中, 鉴定出多种非整倍体类型。在P3群体中, 细胞学观察发现诸葛菜染色体替代甘蓝型油菜的1对染色体异代换植株, 体细胞由36~38条染色体的3种类型组成, 但具38条的体细胞与花粉母细胞(PMC)占绝对优势, 育性正常。在P4群体后代中鉴定出3株具有37条染色体的单体类型, 形态与结实率均不相同。其中1株生长势很强, 其体细胞与PMC均由多种类型构成, 但具37条的体细胞与花粉母细胞占主要比例, 未配对的染色体形态较小, 对生长无明显影响。在染色体数为44与41的两种超倍体(P3群体)后代, 鉴定出具有29~32条染色体的4种非整倍体, 除染色体数为29的植株外, 其余均为混倍体, 它们的减数分裂异常, 花粉育性低。本文对这些非整倍体的来源和应用的前景进行讨论。

**关键词** [甘蓝型油菜](#) [诸葛菜](#) [非整倍体](#) [异代换系](#)

分类号

## The Aneuploid Groups and Their Cytogenetic Analysis in the Progenies between *Brassica Napus* and *Orychopragmus Violaceus*

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### Abstract

Several groups of aneuploids were characterized in pentaploid progenies of *B. napus* and *O. violaceus*. Cytological characterization of the P3 population revealed allosubstitution of one pair of *B. napus* chromosomes with *O. violaceus* chromosomes. This population had normal fertility and had three kinds of somatic cells with 36~38 chromosomes. Its somatic cells and pollen mother cells (PMC) mainly had 38 chromosomes. From a P4 population, three monosomic plants with 37 chromosomes were identified with differing morphology and fertility. One plant which grew vigorously was composed of various types of somatic cell and PMC, in which the cells with 37 chromosomes were observed mainly. The unpaired chromosome was small and with no negative effects on plant development. In the offsprings of the aneuploids (P3) with 41~44 chromosomes, there are four types of plants with 29~32 chromosomes. Except the plant with 29 chromosomes, others which appeared abnormal meiosis behavior and poor pollen fertility are mixoploid. The origin of these aneuploids and their prospects of application have been discussed.

**Key words** [Brassica napus](#) [Orychopragmus violaceus](#) [aneuploid](#) [monosomic](#) [allosubstitution](#)

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