

普通小麦三种细胞质雄性不育系线粒体DNA的比较研究

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摘要 对细胞质分别来源于稃果山羊草(Ae. Kotschyi)、偏凸山羊草(Ae .ven tricosa)、提莫菲维(T. timopheevi)的3种普通小麦雄性不育系,其相应保持系和共有的一种恢复系的mtDNA进行了RFLP比较分析。发现K型和V型不育系的mtDNA在组织结构上不同于T型,说明K、 V型不育系是有别于T型的两种新不育类型。K型、V型不育系的mtDNA与保持系和恢复系显著不同,推测mtDNA与小麦细胞质雄性不育性有关。实验同时发现T型不育系与其保持系的mtDNA非常相似,对这种相似性的原因进行了讨论。

关键词 [普通小麦](#) [T. aestivum](#) [细胞质雄性不育](#) [线粒体DNA](#) [RFLP分析](#)

分类号

The mtDNAs' RFLP Analysis of Three Types of Cytoplasmic Male Sterility in Wheat

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Abstract

Three cytoplasmic male sterile lines (cms-K,V and T)in wheat, of which the cytoplasm derived from Ae.kotschyi, Ae.ventricosa and T.timopheevi respectively, were compared with their maintainers and a common restorer by RFLP analysis of mtDNA. The organization and structure of mtDNAs from cms-K and cms-V of wheat is different from that of cms-T. This means cms-K and cms-V new types of cytoplasmic male sterile lines. Distinct polymorphisms were identified among mtDNAs from cms-K,cms-V and their common maintainer, so mtDNA may involve in cms in wheat. The mtDNA of cms-T is very similar to tis mamtainer's and the reason of the similarity was discussed.

Key words [Wheat \(T.aestivum\)](#) [Cytoplasmic male sterility \(CMS\)](#) [Mitochondrial DNA \(mtDNA\)](#) [RFLP](#)

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