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浅议水稻亚种间杂种不育性的遗传基础 A Discussion on the Genetic Basis of the Sterility in the Hybrid between Rice Subspecies, Indicia and Japonica

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摘要　水稻亚种间杂种不育性是一个普遍现象,但其遗传基础复杂。本文对这种亚种间杂种不育性的类型和表现,特别是前人推导两种解释杂种F1不育性遗传模型的研究方法、优越性及局限性进行了综述与分析，从中可以看出在水稻亚种间杂种F1不育性遗传研究上已经取得了较大的进展，在一些问题上已取得了一定的共识，如这种不育性的表现，细胞质的影响，杂交F1的染色体配对行为等；而在雌雄配子败育的作用大小，不育基因位点数目及不同不育基因位点的遗传特点等方面尚不完全一致；因而水稻亚种间杂种F1不育性的遗传有待进一步的研究。

Abstract: Hybrid sterility in the F1 populations of wide crosses in rice is a common phenomenon but the inheritance of the sterility is complex. This paper summarized the type and expression of the hybrid sterility, analyzed the experimental ideas, inference methods and advantage as well as disadvantages of two main genetic models used to explain the hybrid sterility, and concluded that there remains a lot to be investigated on the genetics of the hybrid sterility, for example, the number and effects of male and female sterility genes, although much advance has been made.

关键词　水稻　杂种不育性　双位点重复致死模型　单位点孢子体-配子体互作模型 Keywords　rice(Oryza Sativa L.)　hybrid sterility　duplicative gametophytic lethal model　one-locus sporo-gametophytic interaction model

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