

研究论文

我国中籼杂交稻亲本的DNA变异性研究

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摘要 利用9个随机引物对42个中籼“三系”杂交稻骨干亲本(保持系和恢复系)进行了DNA遗传差异分析。结果表明: 恢复系、保持系遗传多样性小。恢保间遗传一致性高达0.87, 遗传距离则为0.1377。保持系已选育出较多的材料遗传差异超过了珍汕97B, 而恢复系选育仍未突破明恢63, 杂交稻遗传差异未明显大于汕优63。双亲遗传差异小可能是产量徘徊的重要原因之一, 限制因素在于恢复系。增加亲本遗传多样性和增大双亲遗传差异是当前中籼“三系”杂交稻育种的重要任务之一, 开展亚种间杂种优势利用有着重要意义。

关键词 [杂交水稻](#) [骨干亲本](#) [RAPD](#) [遗传差异](#)

分类号

DNA Variance of Parental Lines for Semilate Indica Hybrid Rice in China

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Abstract RAPD analysis for genetic diversity was conducted on 42 backbone parental lines in Indica hybrid rice breeding with 9 primers selected from 250 random prime rs. The results indicated that the genetic diversity in maintainer and restoring lines was small. The genetic similarity between them was up to 87 percent, and the genetic distance was 0.1377. In general, new maintainer lines were more different from Zhenshan 97 B compared with the new restoring lines which did not show obvious discrimination to Minghui 63. The limited genetic difference between parental lines, especially in restoring lines, was an important reason for the stagnant yield in cytoplasmic male sterility hybrid rice. Therefore expanding the genetic diversity and difference among parental materials was a key task in the present “three-lines” cytoplasmic male sterility Indica hybrid rice breeding and the utilization of heterosis between subspecies was in an urgent need.

Key words [Hybrid rice](#) [Backbone parental](#) [RAPD](#) [Genetic difference.](#)

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