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利用棉花纤维品质相关QTL评价海陆渐渗品种品质初探

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Preliminary Evaluation of Introgressed Varieties of *Gossypium hirsutum* and *G. barbadense based* on QTLs for Cotton Fiber Quality

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摘要 参考文献 相关文章

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摘要 选用第7、13、25号染色体上纤维品质相关QTL(Quantitative trait locus)密集分布区间的48对SSR（Simple sequence repeat）引物，对48份棉花种质进行多态性检测，研究结果显示在实验材料中3对SSR引物具有陆海差异多态性，相关分析表明3个优质基因SSR位点与纤维长度和纤维强度达到极显著相关。通过与海岛棉带型比对、追踪，从分子水平上明确了这些品种中来源于海岛棉渐渗于陆地棉的优异基因区段，为下一步分子标记辅助聚合育种提供了理论参考。

关键词： 棉花 纤维品质QTL 海陆渐渗品种

Abstract： We analyzed genetic diversity of 48 cotton varieties using 48 SSR (Simple sequence repeat) primer pairs for fiber quality QTLs(Quantitative trait loci) broadly distributed across chromosomes 7, 13, and 25. Of the 48 primer pairs, 3 yielded polymorphic bands. Correlation analysis indicated that the corresponding loci were significantly associated with fiber length and strength. Comparison with characteristic bands of *Gossypium barbadense* (Sea island cotton) indicated that some useful cotton quality alleles were derived from that species. These results may serve as a resource for molecular marker-assisted selection pyramiding of favorable traits in future breeding programs.

Keywords： cotton fiber quality QTL introgression germplasm

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