

研究论文

低酚棉产量、纤维品质性状的遗传分析

朱乾浩

浙江省农业科学院作物研究所, 浙江杭州, 310021

收稿日期 1992-6-4 修回日期 1993-3-29 网络版发布日期 接受日期

摘要 本文以32个低酚棉品种(系)为材料,对10个产量、纤维品质性状进行的遗传分析结果表明:低酚棉多数产量构成因素与皮棉产量为正相关,提高衣指、降低籽指虽可提高衣分和单株结铃数,但不利于增加单铃重;高产、优质的矛盾主要表现在纤维长度、比强度与衣分和单株结铃数有较强的负相关。在较大群体的基础上,通过早代的正向选择使籽指稳定在一定水平,然后加强衣指的正向选择,这样,不但有利于衣分、单铃重和单株结铃数的同步改良,而且也有利于纤维品质的改善。但高产、优质矛盾的最终解决,还得通过其它方法。研究还表明现有低酚棉品种群体的遗传基础狭窄。低酚棉品种改良的关键是创造低酚棉新种质和引入有酚棉中的各种突出性状。此外,还讨论了遗传距离在杂交亲本选配中的应用问题及低酚棉品种改良的前景。

关键词 [低酚棉](#); [产量构成因素](#); [纤维品质性状](#); [遗传分析](#)

分类号

Genetic Analysis of Components and Fiber Quality Characters in Glandless Cotton (*Gossypium hirsutum* L.)

Zhu Qian-hao

Crop Research Institute, Zhejiang Academy of Agricultural Sciences, Hangzhou 310021

Abstract Ten characters of 32 glandless cotton genotypes were studied for genetic analysis. It was found that most yield components were positively correlated with lint yield, and main fiber quality characters, including 2.5% span fiber length, fiber strength and micronaire value, were negatively correlated with lint yield. Increasing lint index and decreasing seed index was advantageous to increase lint percentage and boll number per plant, and detrimental to boll weight. It was suggested that when seed index was stabilized by positive selection in early generation, and lint index was selected positively in high generation on a larger breeding positive selection in early generation, and lint index was selected positively in high generation on a larger breeding population basis, not only lint percentage, boll weight and boll number per plant would be increased simultaneously, but also the fiber quality characters would be improved. It was also found that genetic basis of glandless cotton was narrow, therefore, new germplasms of glandless cotton should be created and superior characters of gland cotton should be introduced into glandless cotton in order to breed glandless cotton genotypes with high lint yield and good fiber quality.

Key words [Glandless cotton](#) [Yield component](#) [Fiber quality](#) [Genetic analysis](#)

DOI:

通讯作者 朱乾浩

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(379KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“低酚棉,产量构成因素,纤维品质性状,遗传分析”的 相关文章](#)

▶ 本文作者相关文章

· [朱乾浩](#)