

研究论文

建国以来我国黄淮棉区棉花品种的遗传改良 II. 纤维品质性状的改良

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摘要 本文以不同历史时期的10个代表性棉花品种的2年5点试验和1973~1996年棉花品种区域试验的历史资料研究我国黄淮棉区自50年代以来棉花品种纤维品质性状的遗传改良效果。结果表明, 建国40多年来, 该棉区棉花纤维品质育种取得了较大进展。在品种的增产潜力以每年8 kg/hm²增长的同时, 纤维强度约提高了2.35 CN/dtex, 产量与强度之间的负相关由-0.5633**降到-0.2089(不显著); 绒长变化不显著, 细度有变粗的趋势; 育成了一批优质、高产、综合性状好的棉花品种, 如中棉所12号和中棉所19号等, 基本符合当前生产的要求。该棉区棉花品种纤维强度水平距棉纺织业的要求尚存在较大差距, 今后育种需加大纤维强度和马克隆值的改良力度。在充分利用现有群体的基础上, 创造和扩大育种群体的遗传变异, 改进选择技术, 进一步协同改良产量和强度以及强度和细度。

关键词 [棉花](#) [遗传改良](#) [品质](#)

分类号

Genetic Improvements of Cotton Varieties in Huang-Huai Region in China since 1950' s II .Improvements on Fiber Properties

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Abstract Data from a set of 5-location and 2-year experiments on 10 representative historical cotton varieties and the data of Huang-Huai Regional Cotton Trials from 1973 to 1996 were analyzed to estimate the effects of genetic improvement in fiber properties of cotton in Huang-Huai Region in China. The main results were obtained: 1) Some progresses in fiber properties of cotton varieties have been achieved by breeding programs since 1950. Fiber strength increased by 2.35 CN/dtex and the degree of negative correlation between lint yield and fiber strength decreased from -0.5633 (significant at 0.01 level) to -0.2089 (not significant), while lint yield increased by average 8.0 kg/hm² per year.2) Some varieties (such as Zhong12, Zhong19 and Shiyuan321) with better quality and high yield had been bred out, but there is still a far distance to satisfy the textile industry needs.3) Fiber strength and Micronaire value remain to be improved further; the negative correlation between lint yield and fiber strength and between fiber strength and fineness should be weakened and broken through widening genetic variation and improving the selecting strategy.

Key words [Cotton](#) [Genetic improvement](#) [Quality](#)

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