

### 大豆微核心种质在黄淮地区的区域适应性分析

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### Analysis of Adaptability of Soybean Mini Core Collections in Huang-Huai Region

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摘要

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**摘要** 运用主效可加互作可乘(AMMI)模型, 对黄淮地区3省两年的60份大豆微核心种质数据进行了分析, 目的是对参试种质的环境稳定性和适应性进行评价。结果表明, (1)株高、有效分枝数、百粒重和产量性状的基因型与环境互作效应(G×E)占总平方和的16.73%~24.57%, 均达到极显著水平, 说明有进一步进行稳定性分析的必要。(2)不同种质不同性状在各试验点具有不同的适应性, 部分种质某一性状具有广泛适应性, 而部分种质只在某一特定环境才能表现其潜力。本研究结果将为黄淮地区微核心种质在育种实践中的有效利用提供理论依据。

**关键词:** 大豆 微核心种质 AMMI 双标图 区域适应性

**Abstract:** Accurate identification and evaluation of germplasm can enhance its effective use. To evaluate germplasm's environmental adaptability and stability, we applied the additive main effects and multiplicative interaction (AMMI) model to analyze the two years' data of the 60 mini core collections of soybean in three provinces in the Huang-Huai region. The results showed that the interactions between the genotypes and environment (G×E) for plant height, effective branch number, 100-seed weight, and yield per unit area were highly significant ( $P < 0.01$ ), and the squares of G×E to total squares were 16.73% - 24.57%, suggesting a need of further analysis for the stability of varieties. The phenotypes of different varieties were dependent on the planting sites, and some germplasm performed wide adaptability while others not in particular environment. The results laid a theoretical foundation to effectively use mini core collection for breeding in Huang-Huai region.

**Keywords:** Soybean Mini Core Collection AMMI Biplot Regional adaptability

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