研究论文

基于AMMI模型的NCⅡ交配设计试验的配合力分析

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摘要　　AMMI模型是基因型与环境互作效应分析的有效工具，　而特殊配合力实际上也是父母本间的 互 作效应。 本文用该模型对NCⅡ交配设计试验的配合力进行分析，　结果表明可提高特殊配合 力估值的准确性。 实例分析结果表明，　AMMI模型估计的特殊配合力效应值与传统分析方法 的结果在大小上有程度的差异，　但方向相同；　特殊配合力方差D2与K2大小在不育系 中的排序一致，　而在恢复系中的排序有差异。 讨论了IPCA值在特殊配合力育种中运用的可 能性。

关键词　　AMMI模型　NCⅡ交配设计　配合力

分类号

Analysis of Combining Ability Based on AMMI Model

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Abstract AMMI model is a very effective tool for analyzing the interaction between genoty pe and environment. In fact, t he special combining ability (Sca) for hybrid comb ination is a kind of interaction, too. The data from NCⅡ mating design were ana lysed by AMMI model in this paper. The results showed that this method could pro vide more accurate estimates of Sca effects. The results of an applied example s howed that between the estimates of Sca effects using AMMI model and classic way had only smaller difference. According to estimates of Sca variance D2 and K 2 (coming from AMMI model an d classic way, espectively), there was same order fo r CMS lines, but the order for restorer lines had larger difference. The p ossibi lity was also discussed for application of the scores of significant IPCA axises in breeding for Sca.

Key words AMMI model　NCⅡ mating design　Combining abi lity

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