

研究论文

用AMMI模型分析作物区域试验中的地点鉴别力

李本贵, 阎俊, 何中虎, 李仲来

北京师范大学数学系, 北京 100875

收稿日期 2002-11-22 修回日期 2003-6-27 网络版发布日期 接受日期

摘要 为了比较不同试验点在区域试验中鉴别力的大小, 利用AMMI模型中地点的得分向量长度衡量地点鉴别力, 并与传统的联合线性回归模型中的斜率进行了比较。以1995~96和1997~2000年度黄淮南片春水组小麦区域试验4年的产量数据为例进行了地点鉴别力分析。结果表明, AMMI模型比联合线性回归模型能更好地解释基因型与环境互作效应; 多年间地点鉴别力参数的可重复性分析表明, AMMI模型中地点的得分向量长度比联合线性回归模型中的斜率的可重复性程度更高, 因此AMMI模型中地点的得分向量长度可作为地点鉴别力的一个指标, 也可以将其作为取舍试验地点的标准之一。

关键词 [基因型与环境互作](#) [AMMI模型](#) [联合线性回归](#) [地点鉴别力](#)

分类号 [0212](#)

Analyzing Site Discrimination in Crop Regional Yield Trials by AMMI Model

LI Ben-Gui, YAN Jun, HE Zhong-Hu, LI Zhong-Lai

Math Department of Beijing Normal University, Beijing 100875

Abstract To compare the discrimination of different sites in regional trials, the length of score vector in AMMI model is used as indicator for site discrimination and comparison is made between AMMI model and joint linear regression model. The yield data from South Yellow and Huai River Valley's wheat yield trials from 1995-1996 and 1997-2000 were used to illustrate the site discrimination. The result showed that the length of score vector in AMMI model is better to explain genotype by environment interaction than joint linear regression model. The site discrimination analysis between years shows the length of score vector in AMMI model has higher repeatability than the slope of joint linear regression model. The length of score vector in AMMI model can be used as an index to measure the site discrimination and a criteria for judging testing location.

Key words [Genotype and environment interaction](#) [AMMI model](#) [Joint linear regression model](#) [Site discrimination](#)

DOI:

通讯作者 何中虎 zhhe@public3.bta.net.cn

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(136KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [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“基因型与环境互作”的相关文章](#)

▶ 本文作者相关文章

· [李本贵](#)

· [阎俊](#)

· [何中虎](#)

· [李仲来](#)