



Cluster analysis combined with AMMI model and bootstrap resampling: application in soybean with insect control

Priscila Neves Faria

Universidade Federal de Uberlândia, Uberlândia, Brazil – priscila@famat.ufu.br

Carlos Tadeu dos Santos Dias

Escola Superior de Agricultura "Luiz de Queiroz", Piracicaba, Brazil – ctsdias@usp.br

Lúcio Borges Araújo

Universidade Federal de Uberlândia, Uberlândia, Brazil - araujlb@gmail.com

Marcelo Ângelo Cirillo

Universidade Federal de Lavras, Lavras, Brazil - macufla@gmail.com

In this work the objective was identify genotypes that unite the characteristics of high yield and tolerance to chewing and sucking insects. To assess the accuracy of the scores of genotypes and environments, the 'bootstrap' resampling technique was used, enhancing the quality of inferences about phenotypic adaptabilities estimated by the AMMI model. In addition, the Euclidean distance between genotypes scores was used as similarity measure and subsequently for clustering. From the analysis, the genotypes 97-8011, 97-8029, 97-8050 (33), and the control IAS-5 (44) can be widely recommended, not only for being stable, but also in view of the excellent mean grain yield.

Keywords: Similarity, grouping, yield, interaction.