USE OF MULTIVARIATE TECHNIQUES IN SCIENTIFIC PUBLICATIONS IN THE AREA OF AGRICULTURAL SCIENCE

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In this paper we describe a study, where we analyse the use of multivariate statistical methods in national and international journals in areas including Soil and Plant Nutrition, Food Technology, Crop Science, Genetics and Plant Breeding and Entomology. We took two issues of each journal per volume over the last ten years for the sample and analysed the statistical methods that were employed.

We found that multivariate methods were seldom used, and suggest reasons for this, included the difficulty of students and researchers in understanding the mathematical basis for the methods, the lack of lecturers in the area of agricultural science that are able to link statistical methods with the application areas, a lack of appreciation of the potential value of multivariate methods and the lack of curriculum time for post-graduate courses in statistics.

We conclude that multivariate statistical methods are potentially very useful in agricultural science and that standard or extracurricular courses focussing on applications in this specific subject area should be developed. The uses of multivariate analysis should also be included in courses of other subject areas.