
This is a book on disk. A hard copy manual is provided with the same text material provided on about 90 separate files on a 1.4-Mbyte diskette. The material is written in Quattro-Pro 5.0 (DOS or DOS-Windows) spreadsheet with easy conversion to Excel or Lotus 1-2-3.

This manual and accompanying software program provides coverage of standard topics on experimental design using a spreadsheet to illustrate computations. It provides coverage of topics found in standard references on experimental design. It follows a sequential outline that might be encountered in a graduate level course on experimental design.

The package includes these topics: Some Introductory Comments on Spreadsheets and Some Review of Basic Statistics; Completely Randomized Designs and Randomized Block Designs; Linear and Polynomial Regression with Extension to Analysis of Covariance in Randomized Block Designs Using a Single Co-variable; Sampling and Components of Variance; Latin Square, Crossover, and Hierarchical (Nested) Designs; Factorial Treatment Structure; Split Plot and Strip Plot Designs; Combined Experiments; Incomplete Block Designs; and Augmented Designs.

It seems the most likely audience for this book would be students in an experimental design course and practicing researchers in the agricultural sciences. The material presented evolved from an experimental design course for graduate students in Agronomy and Horticulture taught by the author at the University of Hawaii.

The strength and uniqueness of this software program is that it adapts statistical computations encountered in experimental design situations to a spreadsheet. Standard equations found in experimental design reference texts are incorporated into spreadsheet formulae. This spreadsheet approach offers some advantages over other statistics packages in that spreadsheet software is widely available, most users are already familiar with its use, and data entry and manipulation are often handled with spreadsheet software. Another advantage of the spreadsheet approach is that the user can change values in one or more cells and visually see how such a change might affect the final calculation (e.g., coefficient of variation or treatment sum of squares). Furthermore, graphics can be easily interfaced with data analysis. It provides one or more examples illustrating calculations for common experimental designs. All examples are from actual agriculturally related experiments, which will appeal to students and scientists in agricultural/ biological disciplines.

Customary equations using summation notation are not presented in the manual. Although the spreadsheet provides a useful way to approach computations, it would be difficult for a reader or user not already familiar with the computations to follow them. Although a lot of material is presented via numerous examples, little written text accompanies the design concepts or computations. The intent and best use of this manual plus software package is as a companion or supplement to a standard textbook on experimental design for class use and as a reference for practicing researchers.

One criterion of a broad-based analysis package is that it should be general and flexible enough to handle the multitude of data sets that occur in practice. The examples can serve as templates for data analysis for future experiments. These templates can be modified pretty easily to accommodate changing numbers of treatments, replications, or both. Some examples were checked with another standard statistical software package and results agreed with the spreadsheet calculations. However, one would need to proceed with caution for data sets with missing values. Attention is given to one or two special cases for dealing with missing values, but no general provisions for handling missing values are given.

The output from analyses is straightforward. It can be easily modified to the user’s liking within the spreadsheet format. Critical values of test statistics obtained from tables rather than actual probability values (P values) associated with test statistics are presented with output. This seems outdated in comparison to other statistics software packages. It would probably be easy to include P values since more recent versions of spreadsheet software have functions to compute P values for common test statistics.

This book on disk offers a complete set of examples illustrating application of spreadsheet software calculations encountered when analyzing data from a wide range of experimental designs. It would be a useful learning aid for students in an experimental design course and perhaps for routine data analysis for practicing scientists who do not have access to standard statistical analysis software.

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Visions of American Agriculture is a provocative collection of ideas designed to stimulate thought and public discussion about the future of American agriculture. Professor Lockeretz and his cast of 17 authors have written this book for "everyone, who like us, cares deeply about the future of American agriculture." And, although they come from widely different disciplines and have written about widely different aspects of American agriculture, Lockeretz and his colleagues have managed to deliver a book with a style and at a level of expertise that makes its visions accessible and interesting to anyone from undergraduates to seasoned professionals.

The book contains 15 chapters. And, except for the first chapter, each presents its author’s vision for the future of the aspect of American agriculture they have written about. The book is not prescriptive, but rather contemplative. Its visions are of what the authors hope will happen, not what they expect to happen. Furthermore, although there are clearly some points of agreement, there is no single vision for American agriculture being advanced in this book. Indeed, Professor Lockeretz encourages readers to think about, discuss, and then accept or reject their ideas. They want to initiate discussion, not revolution.

The visions have some commonalities. First, they are not the rants and impossible visions of wild-eyed and uninformed radicals. The authors are mainstream and eminent agriculturists, most of them professors or administrators at various land-grant universities. Second, their visions are firmly grounded