

BOOK REVIEW

"A Text Book of Agricultural Statistics"

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New Delhi, pp. 496. price Rs. 165.00)*

The present book authored by an Associate Professor of Agricultural Statistics in Tamil Nadu Agricultural University is an attempt to provide a text book for the need of the students and research workers in the area of agricultural sciences. It consists of 31 chapters with numerous worked out examples based on actual data drawn from various fields of agricultural sciences. Out of the 31 chapters, 12 chapters relate to the area of design of experiments, 6 relating to descriptive statistics, 4 each to statistical methods and tests of significance and one each to probability distributions, sampling distributions, estimation and biological assays. Being a text book in the field of agricultural statistics, it would have been better if at least one chapter each on Statistical Genetics, econometrics and multivariate analysis had been included. The discipline of 'Agricultural Statistics' initiated and nurtured at the Indian Agricultural Statistics Research Institute, New Delhi over 50 years includes, besides the essentials of theoretical statistics, the fields of design of experiments, sampling and statistical genetics which are needed for training a student as a professional statistician in the field of agriculture. Besides the book is biased towards design of experiments, about 50% being devoted to this field. The present book does not reflect the necessary mathematical rigour in chapters on statistical methods, inference etc. Even there is no exclusive chapter on probability theory which is so essential for a firm and sound foundation for statistical methodology. The definition of probability given in chapter 7 on probability distributions is not adequate as the notion of probability based on relative frequency of the occurrence of an event in an infinitely large number of trials is not discussed which is so very essential for a practical statistician.

It seems the book is more written for the users of statistics in the field of agricultural sciences than for the professional agricultural statisticians. For instance, the discussion on correlation and regression on page 183 is totally inadequate for the teaching of a professional course in statistics. Similarly ANOVA discussed on page 248 in chapter 20 has been given as a model whereas the discussion has been all along on the arithmetic of the analysis of variance. Another instance is provided if one goes through chapter 30 on "Experiments in Farmers' fields". Only three pages are devoted to this important aspect. There

is hardly any mention of the background on the basis of which such experiments were initiated by stalwarts in agricultural statistics like V.G. Panse and P.V. Sukhatme at the Indian Agricultural Statistics Research Institute.

On the positive side, the author has done a good service by including a large number of examples from real data drawn from various areas and working them through, giving all the steps involved in the calculation. It is this aspect which renders the book more as a "hand-book" rather than a "text" as included in the title of the book. Needless to add that the book is too elementary for teaching of an M.Sc. course in agricultural statistics. It can atmost serve as a book for users of agricultural statistics such as scientists in different areas of agricultural sciences. In fact, the book ' Statistical Methods for Agricultural Workers' by Panse and Sukhatme and subsequently, the revised edition by Panse, Sukhatme and Amble is an excellent book for this purpose which incidently the author of the book has not referred to.

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