

7. *On the mean conserving property.* By C. Radha Krishna Rao.

A distribution law is said to possess the mean conserving property M , if the sum of n random observations from n such similar laws follow a law similar in functional form as the parent distribution laws except that the new parameters are functions of n , the size of the sample and parameters involved in the parent laws.

The properties of such distributions have been studied and the explicit expressions for them are obtained in series of orthogonal polynomials. Besides giving some methods which give rise to distribution laws satisfying M , a special study of the series $e^{-x} x^n \sum_{r=0}^{\infty} a_r x^r/r!$ is made. This gave a huge class of distribution laws, including the Bessel function and Hypergeometric function populations.

8. *Statistical analysis of data relating to incidence of pests and diseases on different varieties of sugarcane.* By P. C. Mahalanobis and Birendranath Ghosh.

This note examines whether the degree of damage due to pests or diseases is the same for four different varieties of sugarcane, or not. The analysis has been carried on with regard to the number of canes damaged (y) and the total number of canes in a plot (x). From the analysis of variance of ' y ' only, it seems some varietal effect may be present; but after following for the variation in ' x ' by the technique of the analysis of co-variance no varietal effect can be detected. Bartlett's transformation of $\text{Sin}^{-1} \sqrt{y/x}$ or Cochran's finer transformation were not used because x varied appreciably from plot to plot. The estimates of the extent of damage with their standard errors have been calculated for different varieties. These estimates being correlated, the proper formula for calculating the standard error of the difference of any two such estimates has also been indicated.

9. *Some remarks on family budget enquiries and the construction of cost of living index numbers.* By M. P. Shrivastava, MSc., Department of Labour, C.P.

This paper discusses the utility of the sub-sample control or the use of the statistical design of replicated random sub-samples in family budget enquiries. It also considers some salient features of the cost of living index numbers from the point of view of the uniformity of method of their construction on an all-India basis.

10. *A study on premium rates.* By Anil Chandra Nag, M.Sc., A.C.I.I.(Lond.).

'Mortality' and 'Interest' are two important factors on which the premium rates of Life Insurance companies are based. The practices of British and Indian Life offices have been compared and the Indian method has been criticised. It is suggested that the premium rates under Endowment Assurance have got to be increased but the revision of premium rates under whole life policies is not however so imperative now.

11. *On the efficiency of the card-board method of measurement of leaf areas of plants.* By K. S. Banerjee, Statistical Laboratory, Calcutta.

In Vol. X of the Indian Journal of Agricultural Science 1940, Mr. N. C. Thirumalachary published an article under the title "A rapid Method of Measurement of Leaf Areas". He described four different methods on the paper and found that the method of card-board matching was the most efficient. But the author did not notice that a bias had crept into this method. In the present note, it has been shown that a bias exists in the method of card-board matching and that the bias can be statistically eliminated. Correct procedure has been indicated. Suggestions have also been given in the direction of studying the other three methods more closely from a different statistical point of view.

12. *Enquiry in to the middle class habits and preferences.* By P. C. Mitra, Cawnpore.

An attempt has been made in this paper to utilise the principle of Chi Square with the recently introduced Yates' "Correction for Continuity" in obtaining the results on an enquiry conducted by the writer into the habits and preferences of middle class families. The paper gives an account of the scheme followed in the enquiry and points out the ranges of accuracy within which experimental enquiries can give gleanings and guide the path of detailed surveys.