

ability as a qualification for public office, he is, however, expounding a doctrine freely voiced in NATURE for many years, and the proposed experiment of a small, relatively self-supporting community is one that should not be without appeal to scientific workers. The time is opportune for courageous and adventurous experiment. The world has yet to receive an object-lesson in the high standard of life which should be possible by good organisation and modern methods, where prejudice and incompetence are no longer allowed to deny to society the benefits of leisure or material possessions with which the application of scientific discoveries would endow them.

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Reviews.

The Technique of Field Experiments.—(Rothamsted Experimental Station, Harpenden, England, 1931, 64 pp., 1 sh. 6 d. net). This pamphlet contains a collection of papers read at a conference held at Rothamsted in May 1931, to discuss methods for the incorporation of statistical principles into the conduct of Field Experiments, and opens with a Foreword by Sir John Russell, wherein he traces the historical development of statistics as applied to agricultural experiments, with special reference to the introduction of methods like Beaven's half-drill strip arrangement, the Randomised Blocks and the Latin Square. Fisher's contribution towards the perfection of the mathematical technique is emphasised. With the improved methods of plot arrangement and cultural practices now in use, it is found that the standard error per plot at Rothamsted ranges from about 8 to 10% for Randomised Blocks, and from 4 to 8% for the Latin Square arrangement. Heavier crops like potatoes or Beet-root, give lower values for standard error. As there are usually several plots of each treatment, the standard error of the final result is much less than the figures of errors per plot; it is usually now at Rothamsted about 2 to 4% of the mean yield.

Among the interesting papers included in the present publication, those of Dr. Fisher on the principles of plot experimentation in relation to the statistical interpretation of the results, of Dr. Wishart on the methods of field experimentation and statistical analysis of the results, of S. F. Armstrong on the technique of variety trials, and of H. V. Garner on the practical details of experimentation on ordinary commercial farms, deserve special mention. Dr. Wishart clearly explains with illustrations, the detailed working out of results in the case of Randomised Blocks and the Latin Square method. The practical details of the application of Beaven's half-drill strip method to varietal trials, as developed by the National Institute of Agricultural Botany, England, are dealt with in Armstrong's paper. The growing importance attached to the statistical analysis of agricultural experiments of all kinds, and the extension of statistical methods to new fields where special difficulties arise due to the wide heterogeneity of the populations under study and the present imperfection of technique both in regard to cultural practices and suitable modifications of statistical treatment, is shown by the contributions of Prof. Stapledon, who deals with the technique of grass-land experiments, of Hoblyn who expounds the technique of horticultural experiments, and of Lewis *et al* who deal with Multiple-schemes of field experiments. On the whole, the pamphlet offers a refreshing series of glimpses into the different aspects of statistics in relation to agriculture, and is worth a perusal by all those interested in the conduct of field experiments. (C. N.)

Coir or Coconut Fibre.—A Report on its extraction and properties—S. G. Barker (Wool Industries Research Association, London, 1932.) As Fowler and

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Marsden have observed, "there is practically no literature on the subject of coir preparation", and the present brochure is intended to summarise what little scientific knowledge is available in regard to methods of extraction, properties and uses of Cocoanut fibre and related products. The author believes that like the cotton and other industries, the cocoanut-products industry also, will, in course of time become organised on factory basis; and the proper utilisation of products like fibre, shell, kernel, oil etc. can only be rendered possible by a more intensive scientific study of the products themselves so as to improve their competitive status, and by a co-ordinated production of all by-products at centralised factories. The pamphlet deals in detail with the chemical and technical principles involved in the preparation of cocoanut fibre, e. g. the stage of maturity of nuts to be used, methods for removal of husk or opening of nuts, separation of the fibre from the husk, degree of soaking, and retting, extraction of the coir from the retted husk, chemical and mechanical methods for quick retting of the husk like the Nanji process the Van der Jagt process, the "H. G." process etc., sorting the fibre, utilisation of the residues from fibre extraction, physical and chemical properties of the fibre and subsequent manufacturing processes, like bleaching, spinning etc. Though little of the author's own original investigations or observations are included, the pamphlet contains a useful summary and treatment of the available literature relating to the manufacture of cocoanut fibre and other cocoanut products.

(C. N.)

College News & Notes.

Our Tour. The Final Year B. Sc. Ag. students were taken on an Agricultural Tour for 10 days from 2nd to 13th October, the Lecturer in Botany and two Assistant Lecturers accompanying them. The party first proceeded to Aduturai where they were warmly welcomed by the Superintendent and staff of the station. The party went round the station observing the various lines of work in progress at the station. The superintendent explaining the students the various aspects of work including the trials with the sorgum-cane hybrids, soya beans, pillipesara for green etc. They were also told about the relative importance of several paddy varieties in the tract, Nellore samba being the most important and the various agricultural practices of the tract with regard to paddy cultivation. The party was later entertained at Tea by the Station Staff and left for Tanjore the same evening. The party then proceeded to Thillastanam and Trivadi where they were shown by the Tanjore Demonstrator some of the plantain and betel vine gardens and the methods of cultivation explained. After studying the agricultural practices of the places visited the party took the opportunity to see the local Mandir where the statue of Saint Thyagaraya is situated and the sanskrit college situated on the banks of the Cauvery. On their return from Trivadi the students played a Hockey Match with the Tanjore United Club team. The play was appreciated though our students lost the match by 2 goals to one. Early the next day the party visited Pattukotai and had a thorough study of the areas to be brought under the Mettur project. By the morning of the next day the party reached Trichinopoly Town and visited the Grand anicut and the trial plots run by the Lalgudi Sivagnanam Society, the Deputy Director of Agriculture Mr. Kolandaiswami Pillai accompanying the students. Mr. Pillai had arranged for a sumptuous tea at the Grand Anicut and also gave an address to the students advising them to take up private farming. He explained how he has been trying to solve the unemployment problem by obtaining free of cost 50 acres waste lands situated in the Perambalur Taluk to each one of the graduates of the College at a nominal rate of Re. 1