

ROTHAMSTED EXPERIMENTAL STATION REPORT FOR 1952

THE report records the progress of work of the Rothamsted Experimental Station under the Directorship of Dr. Sir William G. Ogg, covering the researches conducted in its 15 departments. Brief accounts of the soil work in colonial territories, and of soil survey of England and Wales, and two special reviews, one on Micropredators in Soil and the other on the Production of Edible Proteins from Fresh Leaves are included. An introduction by the Director gives a summary of the researches conducted.

Like the earlier reports, the present one covers a wide range of investigations, and a brief review can hardly do justice to the contents of the report. Although by nature of its function, the research work at Rothamsted is directed towards applied agricultural aspects, the problems are, as far as necessary, tackled at their fundamental level and many results find confirmation in field trials. On several lines of investigation, sustained research over the past many years has either borne fruit or helped to clarify ideas on the subject.

Another feature of Rothamsted research has always been its simultaneous approach on problems from various angles. The report well illustrates this co-ordinated plan of work. One of the many striking instances of such teamwork is the study of viruses, which is being pursued in its various facets by the Plant Pathology, the Biochemistry, the Botany, the Entomology and the Insecticide and Fungicide Departments. Work is proceeding in this manner on many other complex problems.

Among the many researches presented in the report, there are some of special interest in India. Studies on fertilizer-placement and phos-

phate availability are two such. Researches on the nature of soil organic matter have indicated a profitable approach to the problem. Deep-ploughing is reported to have counteracted in a drought year its beneficial effects in favourable years. The tentative observation on the absence of any perceptible beneficial effect of krillium would help to temper possible enthusiasm for synthetic soil conditioners. The progress made in microbiological research is indicative of what can be achieved in India through a little additional attention to this much-neglected subject. Spraying nutrients on leaves may have wide applicable value, for the results show that apart from the increase in yield or protein-content of crops, nutrients received through leaves seem to lead to the absorption of the complementary nutrients from the soil.

The presentation of the investigations and results is noteworthy. Even excluding the Farm and Field Experiments Section, the Rothamsted Report contains over a hundred distinct items of research reported on about as many pages. On each item, the report is not only more or less complete; but also gives, where needed, a brief reference to earlier work, to collaborative investigations, and to the applicable value of the results obtained. Details of statistical check on results and references to the experimental controls employed are rightly left out to be presumed. The presentation is such that the intelligent lay reader, after a perusal of the report, is hardly left in doubt as to the necessity or utility of the investigations. It would be a very desirable improvement indeed, if a way could be found to adopt such a style of presentation in our reports in India.

N. L. DUTT.

BOSE RESEARCH INSTITUTE—36TH ANNIVERSARY MEETING

THE Thirty-Sixth Anniversary Meeting of the Bose Institute took place on November 30, 1953, when Dr. N. K. Bose, Director, River Research Institute, delivered the 16th Acharya Jagadish Chandra Bose Memorial Lecture on "The Role of Silt and Sand in Multi-Purpose River Valley Projects".

In the course of his Report, Dr. D. M. Bose, Director, observed that the investigations which the Institute has been doing during the last few years on the action of x-radiation in producing mutations in a few economic plants, has obtained a certain amount of recognition, and that the Institute has, on invitation from the National Institute of Sciences of India, submit-

ted a five-year scheme, which may be extended by another five years, relating to investigations on the mutagenic action of different kinds of radiation on plants. The latter will be selected mainly from the point of their suitability for genetic studies.

Preliminary investigations started during last year have disclosed that beta radiation from radioactive phosphorus, which is selectively absorbed in plant nuclei, is a very convenient tool for inducing mutation in plants. New types of effects are being observed in certain varieties of jute, in addition to those obtained after irradiation trials with x-rays extending over many years.