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## BOOK REVIEWS

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**Frontiers of Research in Agriculture** by S. K. Roy, (Published by Indian Statistical Institute, 203, Barrackpore Trak Road, Calcutta 700 035) 1983, pp. 667. Price not known.

This is a record of the Proceedings of the Indian Statistical Institute's Golden Jubilee International Conference held during September 27 to October 1, 1982.

Founded in 1931 by one of the nation's leading scientific personalities, Prof. P. C. Mahalanobis, the Institute has been doing excellent work in theoretical and applied fields of statistics and agriculture. The contributions made by the scientists of the Institute have won international recognition. On the occasion of the Golden Jubilee, several leading scientists were invited to attend a conference on Frontiers of Research in Agriculture. The inaugural address by David J. Finney of the University of Edinburgh is thought-provoking and it gives the basis for statistical approach in scientific endeavours in agriculture and other fields. He has brought out the basic need for involvement of statistics in any research project in agriculture and related areas, leaving no doubts in the minds of the readers.

The paper by Dr P. V. Sukhatme brings out a summary of all his earlier approaches of human nutrition and statistics and indicates the lines of research to 'redefine poverty line' and in 'preparing the ground for the future' in respect of meeting the increase in demand for food. Dr H. K. Jain has treaded on the known path of recent historical developments in crop production, with particular reference to improved crop varieties and also the need for further increasing production to maintain self-sufficiency by 2000 A.D.

There are nine papers under the head 'Strategy for breeding field crops' which are stray thoughts of scientists on crop improvements. Of these, three are on statistical approach to crop improvement research and one is on the modern technique of 'tissue culture' in plant breeding. In my opinion, the coverage given to the Sessional Topic is too inadequate.

Of the four papers under Session 2, the one on 'Frontiers of Research in Symbiotic Nitrogen Fixation' by Dr Quispel and the other on 'Energy Recycling in Biological Nitrogen Fixation: Problems and Prospects' are classical in covering most aspects of

the subject, which is of great current interest in Biology.

The third Session on Mixed-Cropping is of particular value, since the authors have brought out some original thoughts on the subject. The general practice of Indian farmers to grow mixed crops has been critically examined and scientifically interpreted. The advantages of mixed cropping and the interactions between the crop combinations as 'neighbour-effect' have been discussed. The paper by Dr S. K. Roy gives a summary of the mixed cropping practices being adopted by the Indian farmers.

The Session on 'Post-Harvest Physiology and Estimation of Losses' brings out the magnitude of crop losses in India, in the field, in transit and in storage. The biotic and abiotic factors in post-harvest losses is covered by the papers by Dr S. K. Majumdar and Drs Prem Narain and R. K. Khosla. Very valuable data and methods of assessing the losses are covered by the papers presented at the session.

The seven papers presented under Session 5, on 'Tapping the non-conventional Green Plants for Protein' deals with mostly on 'leaf protein'. Dr N. W. Pirie of Rothamsted Experimental Station, U.K., who has been spearheading the promise of leaf protein as human food for the past two decades and more, has presented in his Key-Note Address, an historical account followed by the latest trends in the use of leaf protein as human food. The Indian leader on this subject Dr Narendra Singh has summarised the research and development work in India and has pleaded for more attention to this field. The other papers deal with work at different locations on the subject and future prospects.

The Session on Mushrooms gives a detailed account of cultivation of edible mushrooms in India, as compared to other countries. The papers also bring out the technologies followed in cultivating different species, their nutritional value, especially as a protein source and the economics. Pages 651 to 667 summarise the recommendations of the conference on the various topics covered under different sessions.

Agriculture is a vast subject and the conference has covered only a few areas and therefore, the recommendations emerging out are also restricted to those areas. In a true sense it doesn't cover most of the frontiers of research in Agriculture. However, what it has covered, has been well done and to this extent the



publication would be an asset to the libraries and laboratories dealing with agriculture.

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**Advances in Materials Technology** (United Nations Industrial Development Organisation) (Published by Technology Programme of UNIDO, P. O. Box No. 300, A-1400, Vienna, Austria) Monitor Issue No. 1, November 1983.

This is the first of the state-of-the art series in the field of Materials, and deals with high strength low alloy (HSLA) steels. The main feature is a special article by Michael Korehynsky, Director of Alloy Development in the Metals Division of the Union Carbide Corporation. The theme has been presented very well and a case made out for HSLA. The data

presented are convincing from all points of views. Even the decision-making political leaders can easily understand and appreciate the case for HSLA. In addition to these intended purposes, the whole pamphlet would form an excellent material for teachers and researchers in alloy steels.

The rest of the issue is devoted to information in alloy steels, their production and application, the minerals from which they are made, and the developments in these fields. It is not however clear as to how these are of particular relevance for developing countries. If they are technically relevant, it should apply to all countries, not necessarily to developing countries.

By and large, the presentation is excellent without serious mistakes but with good clarity. It is one of the best articles written authoritatively for the layman and the reearcher alike.

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## SCIENCE NEWS

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### INDIAN ASSOCIATION OF BIO-MEDICAL SCIENTISTS V ANNUAL CONFERENCE—REPORT AND RECOMMENDATIONS

1. The Fifth Annual Conference of IABMS, was inaugurated by Dr H. V. Hande, Minister for Health, Govt. of Tamil Nadu on 29th September 1984 at the World University Service Auditorium in Madras: Over 120 Bio-medical scientists from all over India participated in the conference.

2. Speaking at the focal theme of the conference, "Health for all by 2000 AD," Dr K. S. Senjivi, President, Voluntary Health Services in his key-note address said that the bio-medical scientists could contribute a great deal in alleviating the human sufferings and told the delegates that the challenge before them was to use their research abilities in simplifying many aids to solve the health and environmental problems, so that these are accessible to common man.

3. Rev. Fr. N. Casimir Raj, S. J.; Principal, Loyola College, released the souvenir on this occasion and complemented IABMS for bringing together scientists of different disciplines to solve the problems of health

and environment.

4. Dr (Mrs.) Sarada Subramanyam, former President of IABMS, was the Scientist chosen to deliver the M. K. Nambiar Memorial Oration this year on "pulsed magnetic field" — A new tool in Modern Therapy. Dr P. Brahmayya Sastri of Vizag, one of the founder members of IABMS was honoured for his outstanding services to the association since its inception. Dr C. R. Krishnamurti, President of The Indian Association of Bio-medical Scientist presided over the function.

5. Over 60 original research papers, classified under the following topics: a. Bio-medical problems; b. Health and environment; c. Neurobiological studies; d. Bio-medical instrumentation, were presented during the two day conference.

6. Large number of students participated in the presentation of their papers and received certificates for their contributions. On the morning of 30th September, 1984 Dr S. Ramachandran, Advisor, Dept.