EXPERIMENTAL AGRICULTURE

Editor
PROFESSOR J. P. HUDSON

Book Review Editor

Editorial Board

PROFESSOR E. W. RUSSELL (CHAIRMAN)

PROFESSOR D. K. BRITTON
DR. E. E. CHEESMAN
PROFESSOR SIR J. B. HUTCHINSON
PROFESSOR J. D. IVINS

SIR G. W. NYE
D. RHIND
DR. G. WATTS PADWICK
DR. C. C. WEBSTER



CAMBRIDGE UNIVERSITY PRESS

Bentley House, 200 Euston Road, London NW 1 2DB American Branch: 32 East 57th Street, New York, N.Y. 10022

> Annual Subscription £7.00 net (U.S.A. \$23.00) Single parts £2.00 net (U.S.A. \$6.50)

OVERSEAS ADVISORS

DR. J. A. ANDERSON (Canada)
DR. M. A. A. ANSARI (Pakistan)
DR. M. F. CHANDRARATNE (Ceylon)
DR. K. B. LAL (F.A.O.)

DR. J. MELVILLE (Australia)
DR. A. H. MOSEMAN (United States)
PROFESSOR M. A. NOUR (Sudan)
DR. B. P. PAL (India)

DR. S. J. DU PLESSIS (South Africa)

Experimental Agriculture publishes the results of research on crops, herbage and forage, with the main emphasis on field experiments carried out in the warmer climates of the world. It also includes accounts of new experimental techniques, discussions of specific problems met in countries where agricultural production is developing rapidly, review articles on new developments in scientific agriculture, and occasional papers on technical, economic and sociological aspects of farming systems. The journal is the successor to The Empire Journal of Experimental Agriculture.

Experimental Agriculture is published quarterly. Four parts form a volume.

Subscriptions may be sent to any bookseller or subscription agent or direct to Cambridge University Press, P.O. Box 92, London, N.W.I. Subscriptions in the U.S.A. and Canada should be sent to the American branch of the Press, 32 East 57th Street, New York, N.Y. 10022. The subscription price is £7.00 net (including postage) for an annual volume (\$23.00 in the U.S.A.), payable in advance; separate parts cost £2.00 net or \$6.50 each (plus postage).

Second class postage paid at New York, N.Y.

Back Volumes. Inquiries for Vols. 1-32 of The Empire Journal of Experimental Agriculture should be addressed to Wm Dawson & Sons Ltd, Cannon House, Folkestone, Kent. Previously published parts of Experimental Agriculture are available from the London or New York offices of Cambridge University Press.

NOTES FOR CONTRIBUTORS

Contributions will be welcomed from scientists of all nationalities, particularly those working in tropical and sub-tropical countries where up-to-date techniques of agricultural experimentation are helping in the rapid development of more modern methods of farm production. Contributions, which must be written in English, should be sent to the Editor, Professor J. P. Hudson, The Spinney, Wrington, Bristol BS18 7LB.

Conditions of acceptance. Submission of a paper will be taken to imply that the material has not previously been published, and is not being considered for publication elsewhere. Papers published in *Experimental Agriculture* may not be reprinted or published in translation without permission from the Editor, given on behalf of the Editorial Board.

General lay-out. Before having their manuscripts typed contributors are asked to look carefully at the lay-out of other papers published in this journal, to ensure that their own papers, as submitted, conform as closely as possible to the accepted pattern. This very much facilitates the work of the Editor and may often result in a paper being published earlier than if it requires a great deal of detailed editorial attention. Numerical data, which should only be included if they are essential to the argument, can be presented either in the form of tables or diagrams, but should never be shown in both ways. It is not the normal custom of the Journal to publish notes shorter than about 2000 words (4 pages) or longer than about 6000 words (12 pages including illustrations).

Typescripts. A top copy and one carbon copy of the script should be submitted, typed with double spacing, on one side of the paper only and with margins of about 1½ inches at the left-hand side and head of each sheet. Quarto size is preferred to foolscap

Title. The development of automatic bibliographic methods, based on single-word indexing of the significant words in the title, makes it essential that the title of each paper should contain the maximum of relevant informa-

Cambridge University Press 1971

Grassland Ecology C. R. W. Spedding

This book has been written for all who are interested in forming a coherent view of whole grassland ecosystems; of the animals that live in, on, or under the plant populations as well as the plants themselves. Agriculturally useful plants and animals are emphasized because of the great importance of grassland in world food production. An understanding of whole systems is required, not only to manipulate them safely and successfully for our purposes, but also in order to decide on the best use of resources. 32 text figures £2

Farming as a Business M. Upton and Q. B. O. Anthonio

This new edition is brought up to date by the consistent use of the metric system and decimal currency throughout the text and in all the numerical examples. Amendments have also been made to such items as the proposed crop rotations. The book outlines the principles which farmers should follow in managing their resources of land, labour, and capital. Technical aspects are dealt with in chapters on the management of crops and livestock. Simple record keeping is described and the principles of farm accounting are discussed. Procedures used in planning and budgeting are considered, and appendices about cooperatives and field surveying are included. Second edition 54 text figures paper covers £1.05 Oxford Tropical Handbooks

OXFORD UNIVERSITY PRESS

JOURNAL OF THE BRITISH GRASSLAND SOCIETY

This Journal is a medium for the publication of the results of research and practical experience in the realm of grassland husbandry and forage production.

EDITOR: A. G. G. HILL

Contents of Volume 26, No. 4, December 1971

- THE SIGNIFICANCE AND CONTROL OF Poa trivialis IN RYEGRASS PASTURES. R. I. Hagger
- THE EFFECT OF TIME AND RATE OF N APPLICATION ON THE PRODUCTIVITY OF GRASS SWARDS IN TWO ENVIRONMENTS, K. M. Wolton, J. S. Brockman and P. G. Shaw
- STUDIES OF RESPONSE TO FERTILIZER NITROGEN. PART 1. THE EFFECT OF PRE-HARVEST APPLICATION OF FERTILIZER NITROGEN ON HERBAGE PRODUCTION OF \$24 PERENNIAL RYEGRASS. I. V. Hunt
- ADVANCE NOTE ON RESEARCH. A DENSITY-YIELD RELATIONSHIP IN *Phleum pratense* L. AND *Dactylis glomerata* L. N. Thomas and H. A. Steppler
- MECHANICAL MEASUREMENT OF GRAZING TIMES OF SHEEP AND A BIAS IN VISUAL ASSESSMENT, P. F. $May \ and \ A$. P. Kennedy
- The voluntary intake of diploid (s22) and tetraploid (tetila tetrone) italian ryegrass, and white clover by sheep. D. J. Thomson
- A comparison of the growth of a cut sward with that of grazed swards, using a technique to eliminate fouling and treading. A. Smith, R. A. Arnott and J. M. Peacock
- THE EFFECTS OF CUTTING AND GRAZING SYSTEMS ON HERBAGE PRODUCTION FROM GRASS SWARDS.

 J. Frame and I. V. Hunt
- Interactions of grazing and burning on heather moors. 2. Effects on primary production and level of utilization. Sheila A. Grant
- A note on the liveweight change of sheep grazing at three stocking rates and two levels of nitrogenous fertilizer, D. H. Scarisbrick
- Summaries of papers read at the summer meeting of the society held at wye college, ashford, kent, 12 to 16 july, 1971.

BOOK REVIEWS

Published quarterly. Annual subscription £4, post free. Back numbers are available, at the following prices; Volumes 21 and 22, £3; subsequent volumes £4.

Orders to: The Secretary, British Grassland Society, Grassland Research Institute, Hurley, Berkshire, England.