

THE JOURNAL OF AGRICULTURAL SCIENCE

EDITED BY

G. D. H. BELL, B.SC., PH.D., Plant Breeding Institute, Cambridge

G. W. COOKE, PH.D., A.R.I.C., Rothamsted Experimental Station, Harpenden

R. E. EVANS, M.SC., PH.D., School of Agriculture, Cambridge

SIR JOHN HAMMOND, C.B.E., D.SC., F.R.S., School of Agriculture,
Cambridge

PROF. SIR J. B. HUTCHINSON, C.M.G., SC.D., F.R.S., School of Agriculture,
Cambridge

SIR BERNARD KEEN, D.SC., F.R.S., 72 Eaton Square, London, S.W. 1

H. L. PENMAN, PH.D., F.R.S., Rothamsted Experimental Station, Harpenden

SIR E. JOHN RUSSELL, D.SC., F.R.S., Campsfield Wood, Woodstock, Oxon.

E. W. RUSSELL, C.M.G., M.A., PH.D., F.INST.P., East African Agriculture and
Forestry Research Organisation, P.O. Box 21, Kikuyu, Kenya

F. YATES, C.B.E., SC.D., F.R.S., Rothamsted Experimental Station, Harpenden



CAMBRIDGE UNIVERSITY PRESS

BENTLEY HOUSE, 200 EUSTON ROAD, LONDON, N.W. 1

AMERICAN BRANCH: 32 EAST 57TH STREET, NEW YORK 22, N.Y.

Price 27s. 6d. net

(U.S.A. \$4.75)

OVER 3000 available

MICHROME STAINS

and Reagents for Biology

Adenosine	Lipid Crimson
Aquamount	Pyronin
Brilliant Cresyl Blue	Sudan Black
Bromelain	Matamoumt
Laktoseal	Urease, etc.

TRIFALGIC ACID for electrophoresis, etc.

UNIFORM HIGH QUALITY, RELIABILITY.
IMMEDIATE DELIVERY.

104-page catalogue on request

New books by Edward Gurr

STAINING ANIMAL TISSUES, Practical and
Theoretical, 637 pages, price 84/-
ENCYCLOPAEDIA OF MICROSCOPIC
STAINS, 500 pages, price 95/-

EDWARD GURR LTD.

42 UPPER RICHMOND RD. WEST,
LONDON, S.W. 14

Telegrams: Micromlabs, London, S.W. 14
Telephones: PROspect 7606 and 8051

AGRONOMY JOURNAL

This official organ of the American Society of Agronomy is a bimonthly publication of up-to-date reports of general agronomic research. Workers in the fields of forages and pastures, crop improvement, cultural practices, soil fertility, and allied areas of investigation will find articles of lasting interest in *Agronomy Journal*. Publication is open to members of the American Society of Agronomy.

\$14.00 per year in U.S. and Canada.
\$15.00 per year elsewhere

American Society of Agronomy
677 S. Segoe Rd.
Madison 11, Wisconsin

Other Cambridge Journals

ANNALS OF APPLIED BIOLOGY

Includes original papers and book reviews on the application of biology to agriculture, forestry, horticulture, and other subjects. Published bi-monthly. Subscription £3. 15s. per volume of 3 parts. Single parts 30s.

BRITISH JOURNAL OF NUTRITION

AND

PROCEEDINGS OF THE NUTRITION SOCIETY

The *Journal* contains accounts of original work in all branches of nutrition, including medical and agricultural. The *Proceedings* reports discussions on several topics of interest to nutrition scientists. Combined subscription rate is £7 for 4 parts of the *Journal*, and two parts of the *Proceedings*. Single parts of either 35s.

JOURNAL OF DAIRY RESEARCH

Publishes the results of original research in dairy science and cognate subjects. The *Journal* is issued three times a year. Annual subscription 60s. Single parts 25s.

Copies of these and other Cambridge Journals may be ordered through your Bookseller or direct from the Cambridge University Press, Bentley House, 200 Euston Road, London, N.W. 1.



Congolese coffee and

Telodrin
Trade Mark



Coffee, one of the Congo's main cash crops, suffers heavy loss every year from attack by the coffee berry borer (*Stephanoderes hampei* Ferr.), the most damaging of local coffee pests. Now, however, it is being successfully controlled by TELODRIN, Shell's highly versatile insecticide, and growers are looking forward to full and profitable harvests.

TELODRIN is ideal for foliage applications on coffee, cotton, tobacco, maize, forests, castor, potatoes, brassicas, forage crops, rice and sugar cane.

Not only this. TELODRIN is a singularly effective soil insecticide: it is invaluable for use on cereals, sugar cane and bulbs, and on root crops such as potatoes and sugar beet.

TELODRIN controls caterpillars, beetles, flies, bugs, aphids, thrips, ants and termites. It is one of a wide range of Shell pesticides which includes Vapona, aldrin, dieldrin, endrin, Phosdrin, D-D and Nemagon. These offer effective control of virtually every major soil and foliage pest.

For further information and details of technical service available, consult your Shell Company.

Shell Chemicals



**RHODESIAN JOURNAL OF
AGRICULTURAL RESEARCH**
*The Journal of the Agricultural Research Council of
Rhodesia and Nyasaland*

Vol. 1, No. 1 JANUARY, 1963

CONTENTS:

Raindrop Sizes
Growth and Fertilizer Uptake by Soyabeans
Water Use of an Irrigated Bean Crop
Temperature and the Flowering of Maize
Heat Tolerance in Cattle
Mineral Content of Six Veld Grasses
Tropical Adaptability of Apple Stocks
Weed Flora of Irrigated Lands

This Journal has been established to publish original research in the Council's field of scientific endeavour, including: Soils and Crops, Pastures and Livestock, Forestry and Hydrology, Wild Life and Fisheries.

The Journal will be published in January and July each year. The annual subscription is 30s. Individual numbers cost 15s.

Specimen copies are available free of charge to Libraries from:

THE ASSISTANT EDITOR
AGRICULTURAL RESEARCH COUNCIL OF RHODESIA AND NYASALAND,
PAX HOUSE, UNION AVENUE,
SALISBURY, SOUTHERN RHODESIA

ANIMAL PRODUCTION

JOURNAL OF THE BRITISH SOCIETY OF ANIMAL PRODUCTION

Contents of Volume 5, Part 2, June 1963

- O'CONNOR, L. K. and HODGES, J. Wastage and Culling in Dairy Herds. (2 Figs.)
- GIBSON, D. and WATSON, J. H. A Comparison of Growth Rate in Twin Cattle of Eight Breeds and Crosses.
- WHITELAW, F. G. and PRESTON, T. R. The Nutrition of the Early-weaned Calf. III. Protein Solubility and Amino Acid Composition as Factors Affecting Protein Utilisation. (2 Figs.)
- PRESTON, T. R., WHITELAW, F. G. and MACLEOD, N. A. The Nutrition of the Early-weaned Calf. IV. Ruminant ammonia formation from soluble and insoluble protein sources. (1 Fig.)
- SEARLE, S. R. Herd-by-Cow interaction effects in Dairy Production Records.
- WHITE, N. and HOLMES, W. A comparison of two methods of beef production with Sussex-Ayrshire crosses. (1 Fig.)
- SMITH, W. C., ADAM, J. L. and TONKS, H. M. The Supplementation Pig Diets with Oleandomycin.
- CORBETT, J. L., LANGLANDS, J. P. and REID, G. W. Effects of season of growth and of digestibility of herbage on intake by grazing dairy cows.
- HUNTER, R. F. and DAVIES, G. E. The Effect of Method of Rearing on the Social Behaviour of Scottish Blackface Hoggets. (6 Figs.)
- WATSON, J. H. Inbreeding Arising through Artificial Insemination and Natural Service in Welsh Black Cattle. Proceedings of the 38th Meeting of the British Society of Animal Production.

Annual Subscription 45s. (U.S.A. \$7.50)

Single Part 17s. 6d. (U.S.A. \$2.75)

OLIVER AND BOYD LTD.

Tweeddale Court, 14 High Street, Edinburgh, 1
