

## MICHROM

### MICROSCOPIC STAINS

Azocarmine	Giemsa Stain
Brazillin	Haematoxylin
Brilliant Cresyl Blue	Janus Green
Carminic Acid	Lacmoid
Cedarwood Oil	Leishman Stain
Cresyl Fast Violet	May-Grunwald Stain
Field's Stain	Nile Blue, etc.

Stains & Reagents for  
Fluorescence Microscopy.  
Biological Laboratory Apparatus

Price List on application

### EDWARD GURR, LTD.

42 UPPER RICHMOND ROAD  
EAST SHEEN, LONDON, S.W.14

Telephone: Prospect 7606 & 8051  
Cables: Micromlabs, London

UNIFORM HIGH QUALITY, RELIABILITY

Now ready: "Practical Manual of Medical &  
Biological Staining Techniques" (330 pages, price  
26s. post free)

by Edward Gurr, author "Microscopic Staining  
Techniques nos. 1, 2 & 3"

(Catalogue No. 660\*)

### BOTANICAL BOOKS AND PERIODICALS

Antiquarian, New  
and Forthcoming

\* Free on application

### W. HEFFER & SONS, LTD.

Petty Cury, Cambridge

Telephone: 58351

*The Journal of Agricultural Science* is issued every other month in parts of about 120 pages with plates and figures, four parts constituting a volume.

Volumes XVI-XX (1926-1930) are out of print. Quotations can be given for other back volumes and parts.

Quotations can also be given for buckram binding cases. (Suspended.)

Papers for publication should be typewritten or written in a very legible hand, and may be sent to DR J. HAMMOND, School of Agriculture, Cambridge, or to the associate Editors. Other communications should be addressed to the University Press, Cambridge.

If Plates in excess of one per 24 pages of text or coloured plates are submitted the author may be asked to bear the cost of such Plates.

Bibliography should be given under the heading of 'References' in the following form:

Surname of authors (in alphabetical order), initials, date of publication (in brackets), title of Journal (abbreviated according to the *World List of Scientific Periodicals*), volume and pages of reference. In the text a reference should be quoted by the author's name and date (in brackets).

All names of Journals and books should be in italics.

Contributors will receive twenty-five copies of their papers free.

The subscription price, payable in advance, is 60s. net per volume (post free); single numbers 20s. net. Subscriptions may be sent to any bookseller, or to The Cambridge University Press, Bentley House, 200 Euston Road, London, N.W. 1.

Subscription price in the U.S.A. is \$10.50 per volume; single numbers \$3.50. Enquiries should be addressed to the Cambridge University Press American Branch, 32 East 57th Street, New York, 22.

# CONTENTS

	PAGE
ISLAM, M. A. and ELAHI, M. A. Reversion of ferric iron to ferrous iron under water-logged conditions and its relation to available phosphorus. (With Two Text-figures) . . . . .	1
BLACKMAN, G. E. and BUNTING, E. S. Studies in oil-seed crops. II. An assessment of the interrelationships between plant development and seed production in linseed ( <i>Linum usitatissimum</i> ) . . . . .	3
BLAXTER, K. L., GRAHAM, N. MCC. and ROOK, J. A. F. Apparatus for the determination of the energy exchange of calves and of sheep. (With Plates 1 and 2 and Four Text-figures) . . . . .	10
BRAUDE, R., CLARKE, P. M. and MITCHELL, K. G. Analysis of the breeding records of a herd of pigs. (With One Text-figure) . . . . .	19
ERASMUS, J. E. Shell porosity and shell thickness in inbred lines of brown leghorn fowls . . . . .	28
ERASMUS, J. E. Relations of yolk, albumen and egg weight in inbred lines of brown leghorns . . . . .	32
ROBERTSON, HAMISH and BARNETT, A. JOHN G. The free amino-acids present in fresh and in fermented marrow stem kale. (With Five Text-figures) . . . . .	36
COEY, W. E. and ROBINSON, K. L. Some effects of dietary crude fibre on live-weight gains and carcass conformation of pigs . . . . .	41
HUTCHINSON, J. C. D. Evaporative cooling in fowls. (With Two Text-figures) . . . . .	48
WALLACE, L. R. Studies in the augmentation of fertility of Romney ewes with pregnant-mare serum . . . . .	60
HANCOCK, JOHN. Studies in grazing behaviour of dairy cattle. II. Bloat in relation to grazing behaviour. (With Six Text-figures) . . . . .	80
HANCOCK, JOHN and McMEEKAN, C. P. Studies of grazing behaviour in relation to grassland management. III. Rotational compared with continuous grazing. (With Two Text-figures) . . . . .	96
THOMAS, BRYNMOR and SMITH, ALLAN N. The nutritive value of <i>Calluna vulgaris</i> . III. Digestibility at four and ten years after burning . . . . .	104
WILSON, P. N. Growth analysis of the domestic fowl. III. Effect of plane of nutrition on carcass composition of cockerels and egg yields of pullets. (With Plates 3 and 4 and Six Text-figures) . . . . .	110
GREER, E. N. and GRINDLEY, G. G. The late manuring of winter wheat: an observation on the nutritive value of the grain. (With One Text-figure) . . . . .	125