

# THE JOURNAL OF AGRICULTURAL SCIENCE

EDITED BY

- G. D. H. BELL, B.SC., PH.D., Plant Breeding Institute, Cambridge  
R. E. EVANS, M.SC., PH.D., School of Agriculture, Cambridge  
J. HAMMOND, C.B.E., M.A., D.SC., F.R.S., School of Agriculture, Cambridge  
H. HUNTER, M.A., D.SC., Keys Cottage, Meldreth, nr. Royston, Herts.  
SIR BERNARD KEEN, D.SC., F.R.S., 72 Eaton Square, London, S.W. 1  
SIR E. JOHN RUSSELL, D.SC., F.R.S., Campsfield Wood, Woodstock, Oxon.  
E. W. RUSSELL, M.A., PH.D., F.INST.P., East African Agriculture and Forestry  
Research Organisation, P.O. Box 21, Kikuyu, Kenya  
R. K. SCHOFIELD, PH.D., F.INST.P., Department of Agriculture, Oxford  
F. YATES, 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 25s. net*  
(U.S.A. \$4.25)

## HEFFER'S



•

### BOOKS ON BIOLOGY AGRICULTURE FORESTRY

•

W. HEFFER & SONS LTD.  
3-4 Petty Cury, Cambridge

## AGRONOMY JOURNAL

Agronomists throughout the world have found the *Agronomy Journal*, monthly publication and official organ of the American Society of Agronomy, a source of up-to-date reports on agronomic research. Workers in the fields of forages and pastures, small grain improvement, corn, fibre crops and legumes, cultural practices, and soil fertility, as well as closely allied fields of investigation find articles of lasting interest in the *Agronomy Journal*. Publication is open to members of the American Society of Agronomy.

Non-member subscriptions:  
\$14.00 per year, U.S. and Canada.  
\$15.00 per year elsewhere.

American Society of Agronomy  
2702 Monroe Street  
Madison 5, Wisconsin

## MICHROME STAINS

### and Reagents for Biology & Histochemistry

Adenosine	Luxol Fast Blue
Adenylic acids	Methyl Green
Brilliant Cresyl Blue	Pyronin
Cytase	Ribonuclease
Giemsa Stain	Sudan Black
Janus Green, B	Trypsin
Leishman Stain	Urease, etc.

**OPTOIL:** synthetic, colourless, non-sticky immersion oil

**CLEARMOUNT & CRISTALITE:** colourless, synthetic, neutral mountants, xylol miscible

### EDWARD GURR, LTD.

42 Upper Richmond Road West,  
East Sheen, London, S.W. 14

Telephone: Prospect 7606 & 8051  
Cables: Micromilabs London

SERVICE, UNIFORM HIGH QUALITY, RELIABILITY,  
IMMEDIATE DELIVERY

#### NOW READY

"Microscopic Staining Techniques" No. 4 (1958), by Edward Gurr, 66 pages, price 6s. (U.S.A. \$1.00)

Ready shortly: "Methods of Analytical Histology and Histochemistry," by Edward Gurr. Royal 8vo. First edition, 334 pages, 9½" × 6½". Price 70s.

*Full particulars of the*

## JOURNALS

*published by the*

CAMBRIDGE  
UNIVERSITY PRESS

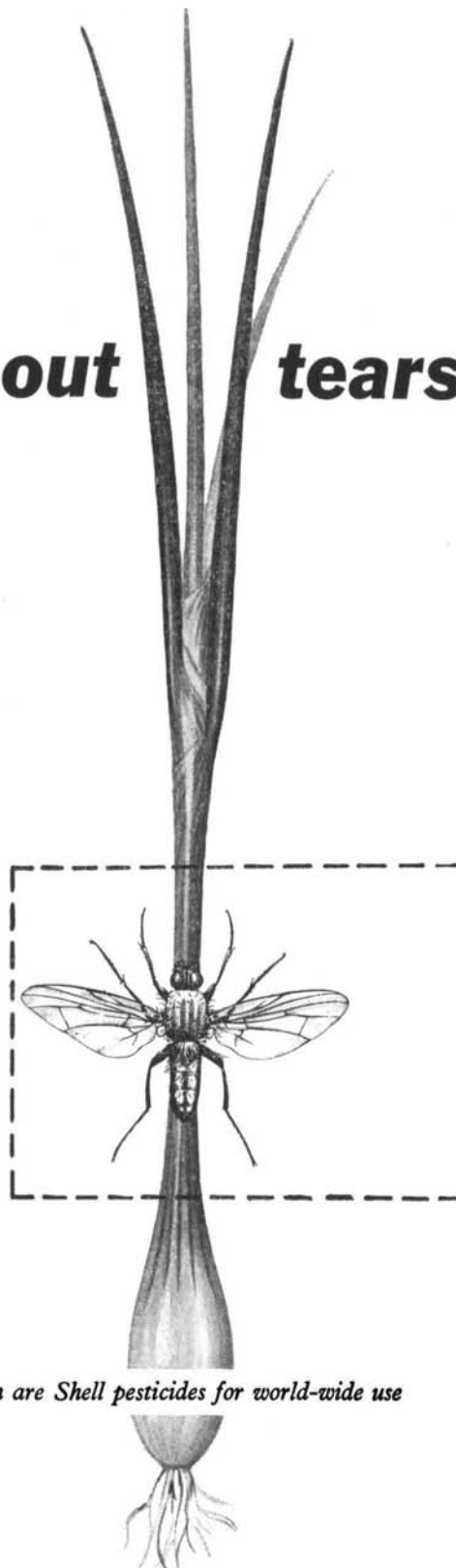
*may be had from*

*The Manager*  
*Cambridge University Press*  
*Bentley House, 200 Euston Road*  
*London, N.W. 1*

# Onions without tears

Among pests which attack the vegetable crops on the terraced hillsides of Japan, the onion fly (*Hylemyia antiqua* Meig)—which also attacks leeks and shallots—is of considerable importance, not only because of the severe damage it causes but because of its rapid breeding cycle. Eggs laid on Sunday will by Wednesday be feeding larvæ which will live, destructively, on the crop for three weeks before pupating. Seventeen days later a new generation of adult flies will be on the wing.

To control this prolific pest, known in many countries, farmers in Japan are now employing the same sure remedy as those who crop larger fields in other lands: aldrin, the powerful soil insecticide developed by Shell. Aldrin, either as dust or spray, applied before planting at 2-3 lbs. per acre (2.2-3.3 kg. per hectare) or used as a row treatment during growth at a rate of  $\frac{1}{2}$ -1 lb. per acre (.6-1 kg. per hectare), will give effective and lasting control. And not only of the ubiquitous onion fly, but of many other threatening pests of the soil. Aldrin, in any language, means destruction—to those which themselves seek to destroy.



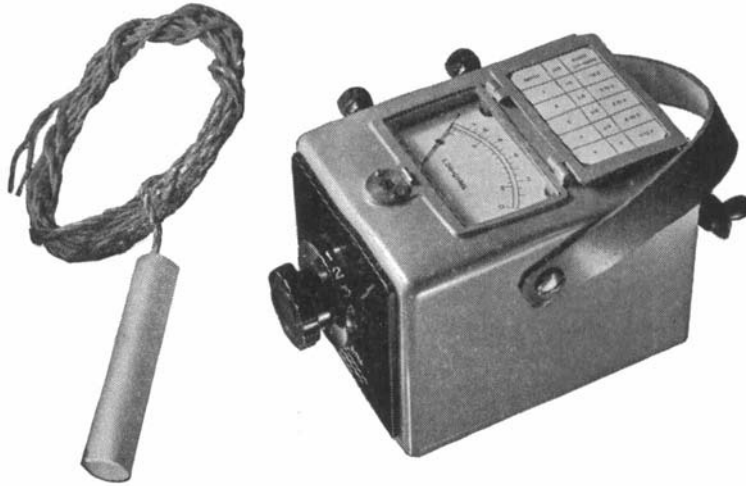
## aldrin

*aldrin, endrin, dieldrin, D-D and Nemagon are Shell pesticides for world-wide use*

*For further information apply to your Shell Company.*

*Issued by The Shell Petroleum Company Limited, London, E.C.3, England*

# B.T.L soil moisture apparatus



With this apparatus, soil moisture is determined by measuring the electrical resistance of gypsum cells buried in the soil, using a portable ohmmeter.

The individual cells are manufactured from gypsum conforming to fine analytical limits. Calibration for particular soils is made easier by our method of batch manufacture, whereby up to 50 cells can be supplied with very close characteristics.

Power is obtained from a 75 volt 50 cycle A.C. hand-generator, calibrated in logohms for ease in converting readings. 2 scale ranges cover the range 1 to 7 logohms.

**Write for Technical Publication T.6.**



***complete laboratory service***



**BAIRD & TATLOCK (LONDON) LTD. CHADWELL HEATH, ESSEX, ENGLAND**  
*Branches in London, Manchester and Glasgow*      *Agents throughout U.K. and all over the world*  
TAS/BT26