Vol. 51. Part 1 August 1958

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. I 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 Microscopy & Biology

Brilliant Cresyl Blue Lipase
Cresyl Fast Violet CNS Luxol Fast Blue
Cytase Methyl Green
Giemsa Stain Pyronin
Janus Green, B Sudan Black
Lacmoid Trypan Red
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: Micromiabs 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, 92°×64°. Price 70s.

Full particulars of the

IOURNALS

published by the

CAMBRIDGE UNIVERSITY PRESS

may be had from

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

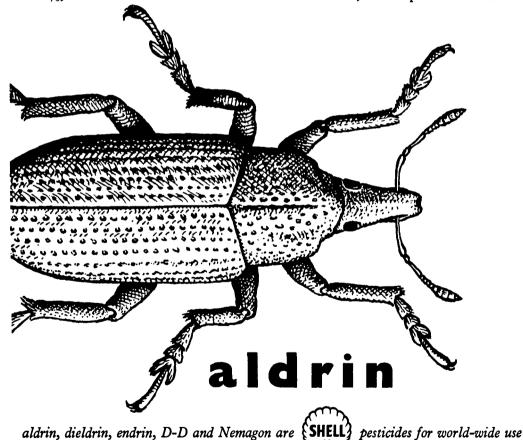
Time of the Weevil

When spring returns to Lombardy and warm sunshine mellows again the pink-washed walls, farmers watch their fields with an anxious eye. To bieticultori, spring is the time of the weevil, and in a few days an entire planting of sugar-beet can be devastated by a pest which attacks both above and below ground.

The sugar-beet weevil, Temnorrhinus mendicus Gyll., infests the fields in spring, the adult insects feeding on the young beet leaves: eggs are laid and grubs hatch out to feed greedily on the roots. This double attack, which can reduce the yield by as much as 85%, is serious both for individual farmers

and for the great 12 year scheme for the Development of Italian Agriculture now in progress.

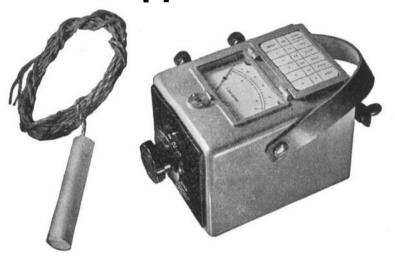
Because of this, the authorities ran a special campaign in 1956 to control the weevil, in which aldrin, the Shell soil insecticide, was widely used as one of the chief weapons of destruction, both because of its effectiveness and its economy. Applied at a rate of 2 lb. per acre, aldrin was sprayed and dusted over the growing crops and achieved complete control, not only of the weevil itself but of other destructive insects. Aldrin, indeed, represents morte fulminea, sudden death, to most pests of the soil.



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