

EXPERIMENTAL AGRICULTURE

Editor

PROFESSOR J. P. HUDSON

Editorial Board

PROFESSOR E. W. RUSSELL (CHAIRMAN)

PROFESSOR D. K. BRITTON

SIR G. W. NYE

DR. E. E. CHEESMAN

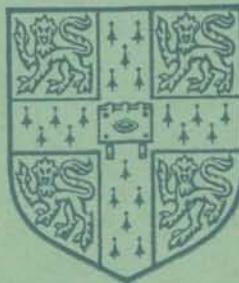
D. RHIND

PROFESSOR SIR J. B. HUTCHINSON

DR. G. WATTS PADWICK

PROFESSOR J. D. IVINS

DR. C. G. WEBSTER



CAMBRIDGE UNIVERSITY PRESS

Bentley House, 200 Euston Road, London, N.W. 1

American Branch: 32 East 57th Street, New York, N.Y. 10022

Annual Subscription £5 net (U.S.A. \$16.50)

Single parts 35s. net (U.S.A. \$5.00)

Expl Agric.

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 crop production and animal husbandry, 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. 1. 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 £5 net (including postage) for an annual volume (\$16.50 in the U.S.A.), payable in advance; separate parts cost 35s. net or \$5.00 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.

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 ($\frac{1}{4}$ 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-

Gardona

the spray-safe insecticide

Gardona is a new insecticide from Shell. And it's a spray-safe insecticide because it can be sprayed without the use of special protective clothing. What's new about Gardona is its low toxicity to man and animals.

Gardona is especially effective against caterpillars, flies and beetles. It protects apples and pears from Codling moth, citrus fruits from fruit flies, and vegetables from caterpillars and flea-beetles.

And Gardona's selective activity against these pests means most beneficial insects and organisms survive the spraying.

Although Gardona will control pests for up to fourteen days, depending on the dosage, its low-mammalian toxicity means crops may be safely harvested a very short time after treatment. In most cases the following day.

Spray-safe Gardona is also showing promising results in the control

of major pests in a variety of other crops such as cotton, rice and maize.

Gardona is another product of Shell's continuing research into the development of effective and safe insecticides. For further information or supplies of Gardona contact your Shell company or Shell Chemicals distributor.

Shell Chemicals



Aldrin

makes the earth a healthy place for crops to grow in

Aldrin is a highly effective Shell insecticide.

It works *underground* to destroy the full range of soil insect pests, which attack the vital root system of your crop. For the major groups of soil pests, wire-worms, cutworms, white grubs and mole-crickets, it is recognised as the most efficient insecticide there is. It can be applied to any type of soil in the world, and is harmless to beneficial micro-organisms in the soil.

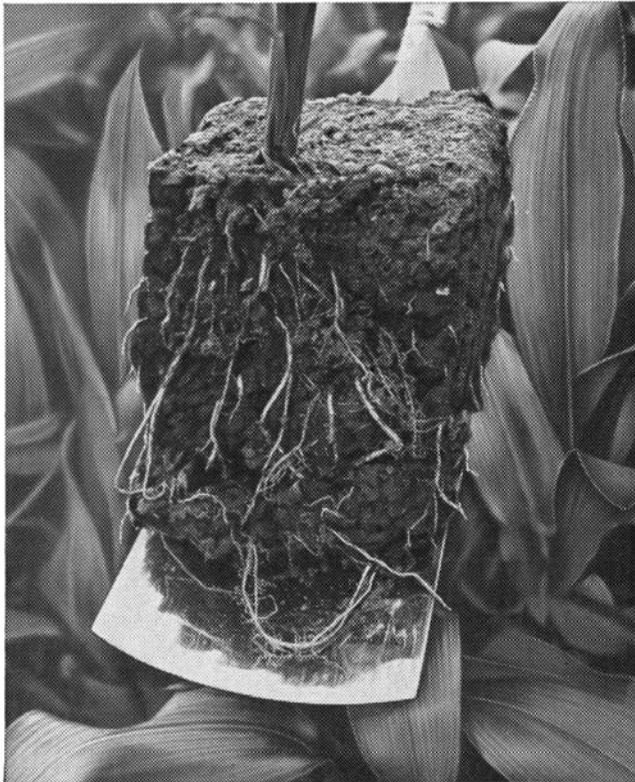
Used for row treatment, as an overall application, as a root dip, or as a seed-treatment, aldrin is especially suited for use with maize and other cereals, sugar cane, sugar beet, potatoes and tobacco.

Aldrin has excellent residual action. It is stable in the presence of other agricultural chemicals, does not affect germination, and has no taint. Used as directed, aldrin is harmless to both farmers and consumers. It is available as the technical material and high

concentrate dusts for further formulation, and also in forms suitable for the grower: emulsifiable concentrates, wettable powders, field strength dusts and granules.

For details of approved uses and advice on application of aldrin consult your Shell company or Shell chemicals distributor.

Shell Chemicals



PERGAMON PRESS

BOOKS ON AGRICULTURE

Weather and Agriculture

J. A. Taylor

Contains 18 papers given at the University College of Wales discussing various topics under three main headings; the environment, hazards and productivity. The purpose of the book is to relate weather factors to agriculture, and the material contained in it should be of the greatest value to meteorologists, climatologists and biologists on the one hand, and agriculturalists, geographers and economists on the other.

218 pp

93s

Weather Economics

J. A. Taylor

The contents of this book are based on papers and discussions at a Symposium held at the Welsh Plant Breeding Station near Aberystwyth in March 1968.

160 pp

60s

The Economics of Irrigation

C. Clark

Packed with information, this book contains the critically important facts over as wide a range as possible concerning the application of water by human agency to assist the growth of crops and grass. The author details the water requirements of crops in various climates and soils, in particular in Africa and the Middle East, Australia and America. The cost of irrigation water from streams, canals, wells, pumps and dams is analysed, close attention being given to the economic returns.

160 pp

55s

The Analysis of Response in Crop and Livestock Production

J. L. Dillon

An introduction to the analytical principles needed for the appraisal of the efficiency of input-output processes in crop, livestock and forestry production. Students of agricultural science will find that the book provides an important link between the biological aspects of their work and its economic applications.

134 pp

*15s/25s

* *First Price: flexicover student edition.*
Second price: hard cover library edition.

For further details of these or other books from Pergamon Press, please write to: College Sales Dept., Pergamon Press Ltd., Headington Hill Hall, Oxford

