

# THE JOURNAL OF AGRICULTURAL SCIENCE

EDITED BY

PROFESSOR SIR R. H. BIFFEN, M.A., F.R.S., School of Agriculture, Cambridge  
E. M. CROWTHER, D.Sc., F.I.C., Rothamsted Experimental Station,  
Harpenden

J. HAMMOND, M.A., D.Sc., F.R.S., School of Agriculture, Cambridge

H. HUNTER, M.A., D.Sc., School of Agriculture, Cambridge

B. A. KEEN, D.Sc., F.R.S., Rothamsted Experimental Station, Harpenden

F. H. A. MARSHALL, C.B.E., Sc.D., LL.D., F.R.S., School of Agriculture,  
Cambridge

SIR E. J. RUSSELL, D.Sc., F.R.S., Campsfield Wood, Woodstock, Oxon.

IN CONSULTATION WITH

PROFESSOR B. T. P. BARKER, M.A., Agricultural and Horticultural Research Station, Long  
Ashton, Bristol

DR I. B. POLE-EVANS, C.M.G., Department of Agriculture, Pretoria, South Africa

PROFESSOR J. HENDRICK, B.Sc., F.I.C., Marischal College, Aberdeen

DR A. E. V. RICHARDSON, C.M.G., M.A., Commonwealth Council for Scientific and Industrial  
Research, Melbourne, Australia

DR H. J. WHEELER, American Agricultural Chemical Co., Agricultural Service Bureau,  
419 Fourth Avenue, New York, U.S.A.

VOLUME XXXIV 1944

CAMBRIDGE  
AT THE UNIVERSITY PRESS

1944

Cambridge University Press  
LONDON: BENTLEY HOUSE

CHICAGO

The University of Chicago Press  
(Agents for the United States)

BOMBAY · CALCUTTA · MADRAS

Macmillan

*All rights reserved*

PRINTED IN GREAT BRITAIN

## PART 3 (JULY 1944)

	PAGE
RUSSELL, E. W. and BALCEREK, W. The determination of the volume and air space of soil clods . . . . .	123
HALNAN, E. T. Digestibility trials with poultry. X. The effect of war-time changes in milling practice on the composition and nutritive value of fine and coarse wheat bran . . . . .	133
HALNAN, E. T. Digestibility trials with poultry. XI. The digestibility and metabolizable energy of raw and cooked potatoes, potato flakes, dried potato slices and dried potato shreds . . . . .	139
WOODMAN, H. E. and EVANS, R. E. The chemical composition and nutritive value of the pea-canning by-products (green pea pods, pea-pod meal, pea-pod silage and molassed silage from pea haulms with pods) . . . . .	155
FERGUSON, W. S. and ARMITAGE, E. R. The chemical composition of bracken ( <i>Pteridium aquilinum</i> ) . . . . .	165
FERGUSON, W. S. and NEAVE, O. Bracken ensilage . . . . .	172

## PART 4 (OCTOBER 1944)

CALLOW, E. H. The food value of beef from steers and heifers, and its relation to dressing-out percentage. (With Three Text-figures) . . . . .	177
JOHNSTONE-WALLACE, D. B. and KENNEDY, KEITH. Grazing management practices and their relationship to the behaviour and grazing habits of cattle . . . . .	190
BOLTON, W. The riboflavin requirement of the White Wyandotte chick. (With Two Text-figures) . . . . .	198
SHEARER, G. D. and MCDUGALL, E. I. Some observations on swayback disease of lambs. (With One Text-figure) . . . . .	207
BLAXTER, K. L. Experiments on the use of home-grown foods for milk production. III. The effect of over- and under-feeding during mid-lactation . . . . .	213
BLAXTER, K. L. and FRENCH, T. H. Experiments on the use of home-grown foods for milk production. IV. Methods of feeding bulky foods . . . . .	217
BELL, G. D. H. The breeding of two-row winter-hardy barley. (With Plates 1 and 2 and Seven Text-figures) . . . . .	223