THE JOURNAL OF AGRICULTURAL SCIENCE

EDITED BY

PROFESSOR R. H. BIFFEN, M.A., F.R.S., Cambridge A. D. HALL, M.A., F.R.S., Development Commission, London E. J. RUSSELL, D.Sc., Rothamsted Experimental Station PROFESSOR T. B. WOOD, M.A., Cambridge

IN CONSULTATION WITH

DR H. P. ARMSBY, State College, Pennsylvania, U.S.A.
B. C. ASTON, Department of Agriculture, Wellington, New Zealand
DR C. A. BARBER, Agricultural College, Coimbatore, India
PROFESSOR B. T. P. BARKER, M.A., National Fruit and Cider Institute, Long Ashton, Bristol
W. BATESON, M.A., F.R.S., John Innes Horticultural Institute, Merton, Surrey
J. R. CAMPBELL, B.Sc., Department of Agriculture, Dublin
I. B. POLE EVANS, Department of Agriculture, Pretoria, South Africa
F. B. GUTHRIE, Department of Agriculture, Sydney, N.S.W.
PROFESSOR J. HENDRICK, B.Sc., Marischal College, Aberdeen
J. W. LEATHER, V.D., F.I.C., Agricultural Research Institute, Pusa, Bengal
T. H. MIDDLETON, C.B., M.A., Board of Agriculture, London
F. T. SHUTT, M.A., F.I.C., Experimental Farms, Ottawa, Canada
PROFESSOR W. SOMERVILLE, M.A., D.Sc., School of Rural Economy, Oxford
DR A. C. TRUE, Department of Agriculture, Washington, D.C., U.S.A.
DR FRANCIS WATTS, C.M.G., Barbados

DR H. J. WHEELER, American Agricultural Chemical Co., Boston, Mass.

Volume VII 1915–16



Cambridge University Press C. F. CLAY, Manager LONDON: Fetter Lane, E.C. EDINBURGH: 100, Princes Street also H. K. LEWIS & Co., Ltd., 136, Gower Street, London, W.C. and WILLIAM WESLEY & SON, 28, Essex Street, London, W.C. CHICAGO: The University of Chicago Press BOMBAY, CALCUTTA AND MADRAS: Macmillan and Co., Ltd. TORNOTO: J. M. Dent and Sons, Ltd. TOKYO: The Maruzen-Kabushiki-Kaisha

[All rights reserved]

Cambridge :

PRINTED BY JOHN CLAY, M.A. AT THE UNIVERSITY PRESS.

Contents

Part 3 (February, 1916).

	PAGE
DAVIS, WILLIAM A., DAISH, ARTHUR JOHN, and SAWYER, GEORG	E
CONWORTH. Studies of the Formation and Translocation of Carbo	-
hydrates in Plants. I. The Carbohydrates of the Mangold Leaf	
(Ten figures in text)	. 255
DAVIS, WILLIAM A. Studies of the Formation and Translocation of	f
Carbohydrates in Plants. II. The Dextrose-Laevulose Ratio in	
the Mangold. (Five figures in text)	. 327
DAVIS, WILLIAM A., and SAWYER, GEORGE CONWORTH. Studies of	f
the Formation and Translocation of Carbohydrates in Plants	
III. The Carbohydrates of the Leaf and Leaf Stalks of the Potato	
The Mechanism of the Degradation of Starch in the Leaf. (Thre	
figures in text)	. 352

Part 4 (April, 1916).

RIGG, THEODORE. The Soils and Crops of the Market-Garden District of Biggleswade. (One figure and 27 maps in text, with outline	
map on transparent paper)	385
BAILEY, C. H. The Relation of Certain Physical Characteristics of	
the Wheat Kernel to Milling Quality	432
ELTRINGHAM, H. Some Experiments on the House-Fly in Relation	
to the Farm Manure Heap. (Three figures in text)	443
HENRICK, JAMES, and OGG, WILLIAM G. Studies of a Scottish Drift	
Soil. I. The Composition of the Soil and of the Mineral Particles	
which Compose it	458
CALDER, R. B. Cause and Prevention of Rancidity in Palm Nut	
Kernel Cake	470
EYRE, J. VARGAS, and SALMON, E. S. The Fungicidal Properties of	
Certain Spray-Fluids	473
PETHERBRIDGE, F. R. Some Observations on the Flora and Fauna	
of Flooded Fenland. (With Plates V and VI)	508