

# POTATO VARIETIES

RED-HELIOTROPE



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BLUE-HELIOTROPE



3



4

BLUE



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FLOWER COLOUR CHART

# POTATO VARIETIES

BY

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CAMBRIDGE  
AT THE UNIVERSITY PRESS  
MCMXXVI

**CAMBRIDGE**  
UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

[www.cambridge.org](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9781107433090](http://www.cambridge.org/9781107433090)

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First published 1926

First paperback edition 2014

*A catalogue record for this publication is available from the British Library*

ISBN 978-1-107-43309-0 Paperback

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DEDICATED  
TO THE MEMORY OF  
MY WIFE

Cambridge University Press  
978-1-107-43309-0 - Potato Varieties  
Redcliffe N. Salaman  
Frontmatter  
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## PREFACE

THE title of this book is designedly non-committal. Doubtless the term "Potato Varieties" could be held to cover the almost unlimited mass of observation and tradition which has accumulated around the potato as a cultivated plant. It has seemed, however, more desirable to concentrate on a relatively small number of problems, rather than to attempt a complete survey of a territory which closer study proves to be as notable for its bright oases as it is for the barren wastes in which they lie embedded.

Whilst the presentation of an accurate description of the varieties in use in this country has at all times been before my mind, yet my main task has been the consideration of the forces, inherited and environmental, which control the production of these varieties, their behaviour and their ultimate destiny. It is mainly towards the elucidation of those forces many of which, mendelian in character, control important industrial features of the plant, that I have devoted the last twenty years, save for the interruption of the War. Incomplete and imperfect as may be the outcome of these labours, it was evident that sufficient facts had already been acquired to lay the foundation for a systematic study of the subject.

Today it is permissible to regard the varieties of the potato, numerous and distinctive as they are, as but the outward and visible signs of the interplay of independent genetic factors existing in the potato plant, many of which have now been recognized. The production of new varieties in the past has been the result of chance tempered by intelligent selection. It is hoped that in the future, with the knowledge already accumulated, and with much more which will surely be added, we shall be in a position to breed exactly the variety we require; and that more and more will the element of chance be removed and the intelligence and knowledge of the worker have fuller play. It is to this end that I have attempted this work.

The consideration of this main purpose has necessitated some rather drastic limitations. It has not been possible to treat either of the history

of the potato in the New and its spread in the Old World or, what is perhaps more important, of the profound effect its general adoption has had on the social life of the peoples of Europe during the last three hundred years. To these subjects I hope to revert on another occasion.

Roze in his splendid *Histoire de la Pomme de Terre* has dealt fully with the historical side, and what remains to be added, though of much interest, does not impugn any of the facts he has adduced.

I am fully aware that both student and practical grower are in need of a book which shall deal fully both with the cultural problem of potato production and more particularly with the many diseases to which the potato is prone. Neither of these problems has been strictly within my province, both would in any case have had to be omitted from this book, for their proper consideration would have necessitated a special treatise. The subject of potato diseases is indeed a most urgent one, and one upon which there is no adequate text-book in the English language. The importance of the so-called "virus diseases," and the havoc they are playing with our potato crops, must before long engage the whole-hearted attention both of our Government and our Research Institutions. In this work the diseases of the potato are dealt with only in so far as their appearance is controlled by inherited genetic factors. Varietal immunity and susceptibility are fully discussed, but the reader will realize that, except in the case of Wart Disease, our knowledge of the underlying factors is still far to seek.

In the detailed descriptions of the varieties, I have employed new methods, which I have used during the last three years and have found to be of value. A full explanation of these methods and of the terms used are given, and with a little study they should present no difficulties. The object in view throughout has been to facilitate the observer in "spotting" a variety or a "rogue" growing within it; and this, not because such ready recognition is in itself a great virtue or a matter of immediate importance, but because the preservation of pure varietal stocks is the keystone of all sound potato growing and the only foundation on which a healthy industry can base itself. Impure stocks may be but a source of pecuniary loss and annoyance to trader or consumer, but to the scientific investigator they spell ruin of the most carefully planned experiments. Indeed, it is this cause which has rendered worthless so



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much even of the most recent work on both physiological and pathological problems such as starch content and Wart Disease. It is because of the importance attaching to the purity of stock, that so much space has here been devoted to the question of synonymy, and the work of the National Institute of Agricultural Botany in respect to that problem.

Much emphasis has been laid on the subject of Yield, both as regards the genetic or hereditary aspect of the problem as well as in regard to the external influences of the environment. The recent work of the N.I.A.B. on Yield Trials, has been considered of such importance, that a chapter has been devoted to the methods employed. I am deeply grateful to Mr W. H. Parker, M.A., M.C., who, in an Appendix, has written up in detail the statistical treatment of the results of such a trial, thus enabling the student to follow the method out to the end.

It is with much pleasure that I have been able to give the actual parentage, and the names of the breeders and producers of most of the varieties described. For this I am primarily indebted to Messrs Sutton and Sons, Reading, who, through the kindness of their Director, Mr Martin H. Sutton, have placed at my disposal all the information in their possession concerning the varieties which they have put on the market during the last fifty years. The fact that the names of many of these varieties have become household words throughout the civilized world, and that the history of their origin could scarce fail to be of interest to students in this and later generations, determined me to seek permission to publish the entire list as an appendix. In addition to this, they have given me every encouragement to obtain from their expert, Mr W. P. Lasham, all possible assistance. It is difficult to express adequately my gratitude to Mr Lasham for the untiring zeal with which he has answered the almost innumerable inquiries that I have addressed to him. Mr H. Bryan, of the National Institute of Agricultural Botany Trial Grounds at Ormskirk, has from time to time rendered much valuable assistance in the determination of varietal characters. I am indebted to the following ladies and gentlemen for various pieces of information mainly in relation to the origin of the varieties herein described:

Mr T. ANDERSON, Board of Agriculture for Scotland, Edinburgh; Professor C. BOYLE, University College, Cork; Mr J. BRIGGS, Thorney, Peterborough; Messrs BRUCE and ROBBIE, Ltd, 46 Castle Street, Forfar; Messrs JOHN BUTLER

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and Son, Scotter, Lincs; Messrs GEORGE COLEMAN, Ltd, Covent Garden Market, London, W.C.; Messrs DANIELS Bros., Ltd, Norwich; Mr MONTAGU DRUMMOND, Scottish Society for Research in Plant Breeding, Craigs House, Corstorphine; Mr S. T. FARISH, Todhilmuir by Lockerbie; Messrs FIDLER and Sons, Reading; Mr A. FINDLAY, Auchtermuchty; Mr W. M. FINDLAY, The North of Scotland College of Agriculture, Marischal College, Aberdeen; Mr H. F. FRYER, The Priory, Chatteris; Mr W. GILDING, Swineshead, Lincs; Mr JAMES HARRIS, Blackpill Nurseries, Swansea; Mr JAMES HENRY, 476 Gilmour Street, Ottawa, Canada; Sir FRED HIAM, 42 Station Road, Cambridge; Messrs HOGG and ROBERTSON, Dublin; Mr J. HOWIE, Secretary Ayrshire Agricultural Association, Ayr; Professor T. JOHNSON, National Museum, Dublin; Messrs J. LYONS and Co., Ltd, Cadby Hall, Kensington, London, W.; Messrs MAJOR Bros., 14 and 15 Great Northern Potato Market, King's Cross, London, N.; Mr A. W. MCALISTER, Seed Potato Grower, Dumfries; Mr DONALD MCKELVIE, New Lanark, Lamlash, Isle of Arran; Mr A. MILLAR, Board of Agriculture for Scotland; Messrs GEO. MONRO, Ltd, Covent Garden Market, London, W.C.; Mons. S. MOTTET, MM. Vilmorin-Andrieux & Cie, Verrières-le-Buisson, France; Dr PAUL A. MURPHY, Dept. of Lands and Agriculture, Dublin; Mr JAMES PARKER, Sleaford; Mr GEO. D. PATERSON, Commercial Street, Dundee; Messrs PATTULLO, HIGGS and Co., Ltd, Orpington; Messrs JOHN PERKINS and Son, Market Square, Northampton; Mons. CL. PERRET, Station de Merle, France; Mr GEO. H. PETHYBRIDGE, Ministry of Agriculture and Fisheries, Harpenden, Herts; Mr J. R. POAD, Walmgate, York; Professor H. M. QUANJER, Wageningen, Holland; Miss E. R. RUSSELL, Livingston, Castle Douglas; Mons. M. SABBE, Director Museum Plantin-Moretus, Antwerp; the late Sir DAVID SALOMONS, Bart., Broomhill, Tunbridge Wells; Mr WILLIAM STUART, Bureau of Plant Industry, Washington; Mr JAS. J. TUNNARD, Hubbert's Bridge, Boston; Mr J. F. WILLIAMSON, Thorpe Rise, New Barnet, Herts; Mr JAMES WILSON, Greenside Nursery, St Andrews; Dr H. W. WOLLENWEBER, Berlin-Zehlendorf, Machnowerstr. 6, Germany.

To Prof. Sir Rowland H. Biffen, F.R.S., I wish to tender my most grateful thanks for having read and criticized the ms., to Mr H. M. Loewe, M.A., for reading the proofs, and to my secretary, Miss Edith M. Hagger, for having assisted at all stages of the book.

REDCLIFFE N. SALAMAN

BARLEY, HERTS.

*July 1926*

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Cambridge University Press  
978-1-107-43309-0 - Potato Varieties  
Redcliffe N. Salaman  
Frontmatter  
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