PLANT BREEDING AND GENETICS
IN
HORTICULTURE

Science in Horticulture Series

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The authors are all British but they have illustrated their books with examples drawn from many countries. As a result the texts should be of value to English-speaking students of horticulture throughout the world.

PLANT BREEDING AND GENETICS IN HORTICULTURE

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PREFACE

Without a working knowledge of genetics, modern plant breeding techniques are largely unintelligible. One of the major problems in preparing a book of this length, therefore, is to condense an explanation of genetics theory into a relatively small space and yet to leave enough room for plant breeding matters. This has been tackled here by clothing, as it were, the bare bones of genetics with the flesh and skin of practical plant breeding. Whenever possible horticultural examples have been chosen to illustrate the theory—especially examples of those species of greatest interest for cultivation in the northern hemisphere.

Like the other texts in this series, this book is intended for students of horticulture studying for Higher National Diploma or Certificate, for National Diploma in Horticulture and as an introduction for university degree students. I have had in mind also the idea of producing a pocket reference book of the kind I would like to have had myself when I first became interested in plant breeding. I hope, therefore, that it will prove of interest to a wider public, indeed anybody who is seriously interested in the improvement of horticultural crops and garden plants.

To help in making the text read fluently, literature references have been kept to a minimum. Those references quoted have been chosen whenever possible from papers in easily available journals in English and of direct interest to a reader wishing to follow up a topic.

Discussion with my colleagues Drs J. R. T. Hodgkin, H. J. Gooding, D. L. Jennings and A. B. Wills have been of considerable help in formulating the contents of this book and Mr R. L. Knight of the National Seed Development Organisation Ltd., has kindly advised on some matters relating to the testing and introduction of new cultivars. I am grateful to many workers who permitted the quotation of their results, especially to Dr O. Banga, Dr S. Blixt, Professor J. Sneep and the late Dr W. Heydecker. Figure 1.1 was reproduced with assistance from the St Andrews University Library of Rare Books. I am grateful to the Literary Executor of the late Sir Ronald A. Fisher, FRS, to Dr Frank Yates, FRS and to the Longman Group Ltd., London, for permission to include Table 5.1 which is based on a table in their book *Statistical Tables for Biological, Agricultural and Medical Research*.

Preface

I should like to record my thanks also to Professor L. Broadbent for his helpful comment and encouragement, to Professor J. Snee for kindly reading through the manuscript, and to my wife who suffered in silence when I wrote the text and read it through to ensure that it was intelligible to a member of the public who is not a plant breeder or geneticist.

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