Breeding Vegetable Crops
Edited by

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Breeding Vegetable Crops
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Students and teachers interested in plant breeding have many good textbooks from which to choose. All of these books present the established procedures of plant breeding, and a few of these textbooks show how plant breeding methods are applied to specific agronomic crops. There are relatively few books dealing with the genetic improvement of horticultural crops. *Advances in Fruit Breeding*, edited by Jules Janick and James Moore, has provided ample treatment of genetic improvement of many fruit crops, emphasizing the woody perennials of the temperate zone. *Breeding and Genetics in Horticulture* by C. North includes vegetable improvement, but the treatment given to each vegetable crop is very brief, often only a page or less. *Flower & Vegetable Plant Breeding* by L. Watts also addresses the improvement of several vegetable crops, but the maximum length of presentation for each crop is usually three pages. The last extensive description of the "state of the art" was the *Yearbook of Agriculture* 1937, which devoted 223 pages to the genetic improvement of vegetables.

The purpose of writing *Breeding Vegetable Crops* is to give extensive, up-to-date treatment to the genetic improvement of 14 vegetable crops. Each crop has its own unique requirements, opportunities, and challenges. Emphasis has been placed on the practical aspects of applying breeding techniques and current genetic knowledge to vegetable improvement. This book is intended for advanced students who already have had training in genetics and plant breeding; therefore, there are no chapters that present the fundamentals of these subjects. Great contributions to knowledge have been made during the last few decades in the various disciplines supporting genetic improvement of vegetables, but the reports of these researchers are widely scattered in the journal literature.

Each author contributing to *Breeding Vegetable Crops* has had long experience with his chosen crop and is able to "fill in the gaps" left by the brevity and highly specialized nature of journal reports. The task of each contributor involved evaluating the merits of these research reports, choosing only those aspects of value to vegetable breeders, and describing how to exploit this knowledge in a breeding program designed to meet various industry needs.
Both English and metric units of measure are used in this book, each where appropriate. The primary readership addressed by this book is the English-speaking agricultural science community. Because agricultural production is usually performed and reported in English units (at least in the United States) and much field research is conducted in English units, the clarity and easy accessibility of information are best served by being flexible on this issue. The rule is simple: describe and present the work in the same units originally used for the work and data collection.

M. J. Basset
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