tion to the reader. A few chapters are rather brief and hastily written. Thus, Chapter 18 is brief and lacks some of the useful, relevant information on future prospects for crop improvement. Important topics missing in this volume are the use of haploids in deriving aneuploid stocks and in elucidating intergenomic relationships. Coverage of these topics would add to the usefulness of the volume. Some typographical errors (e.g., p. 403, last paragraph, line 1, ‘do’ should be ‘due’; p. 420, line 3, ‘has’ should be ‘have’) are bound to appear in a volume of this size.

Despite these rather minor deficiencies, the editors of this volume have done a marvelous job amassing useful information on various applications of haploids and doubled haploids. Many of the chapters are richly illustrated, which increases the value of the book. It should prove to be a useful reference for graduate students and researchers interested in theoretical aspects and practical applications of haploids and doubled haploids in plant breeding, cytotgenetics, gene mapping, and biotechnology.

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Recent trends in funding for agricultural research appear to have been a major motivating factor in the conception and execution of this book. Shrinking resources have, the editors felt, made it increasingly important to foster communication among pathologists and other plant scientists working with legumes, especially since researchers can become myopic by their focus on a particular commodity. This volume brings together information on the pathology of various crops: grain, oil-seed, and pasture legumes from both temperate and tropical environments in an attempt to enable greater synthesis across commodities. This broad scope is both this book’s main strength and its weakness.

The bulk of the text, after an introductory chapter on the importance of disease as a constraint to production, is comprised of chapters devoted to a single leguminous crop of world-wide importance. Crops addressed are groundnut, soybean, common bean, cowpea, pea, faba bean, lentil, chickpea, pigeonpea, lupines, clovers (Trifolium), and tropical pasture legumes. Each chapter has a summary of the major diseases, disorders, and in a few cases weeds, affecting the crop, with minor diseases presented in tables. Major diseases are, throughout the book, treated in a consistent format, with sections on etiology, biology, symptoms, epidemiology, effects on yield and quality, management, and a few words that suggest areas of needed research. A curious concluding chapter addresses shortcomings that were discovered in the writing of the book and takes a last stab at addressing these, primarily issues surrounding diagnosis, yield loss assessment, disease management, and the need for international cooperation in research on legume diseases.

Organizing the disease sections into a similar format facilitates comparing diseases among crops. It is especially helpful in those instances where the same common name of a disease may represent several different pathogens, depending on the crop host. The organization also allows quick comparisons of biology and management of diseases among crops.

The editors intend this book to become a stepping-off point for further investigation of the literature on legume diseases. The goal of comprehensiveness is admirable but necessarily results in certain economies. Missing is information on crops such as alfalfa, mung bean, and lima bean. Sections of some disease treatments are brief. It is assumed that the reader is not trying to identify a disease, but is seeking information about a problem that has already been named. This book could not be used as a diagnostic tool: descriptions of the pathogens are too sketchy to allow identification. Line drawings of the fungi and nematodes would have been particularly useful, as would more complete morphological descriptions and references to the taxonomic literature, which in some instances are lacking altogether.

The book has some minor editing problems, primarily with pathogen nomenclature. This can be confusing to one who does not know that the three names used for Ralstonia solanacearum all refer to the same bacterium. Overall though, the writing is clear, and is illustrated with black and white photographs that are generally of good quality; the 36 color photographs are more uneven in quality and are less helpful because of their small size.

This reference was written for legume scientists, pathologists in particular, and hence has a narrow appeal. The editors have accomplished their goal of providing relatively detailed information on the life history of the major agriculturally important legume pathogens and the environmental factors that influence them and affect disease development. This is the first step in developing a holistic approach to disease management in crops that are so important in the diets of the world’s poorest people. Diseases cannot be looked at in isolation, and the information in this book should be of interest to interdisciplinary legume research teams working in both developed and developing countries.

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This book is a compilation of papers from the 5th International Plant Cold Hardiness Seminar at Oregon State University in August, 1996. The seminar is held every 5 years. The intent of the editors was to provide the reader “with a view of recent advances in the field of plant low temperature stress research since the fourth seminar” in Sweden, 1991. Since it apparently includes only those papers presented at the conference it should not be considered a comprehensive treatment of plant cold hardiness. However, it covers a wide range of topics from chilling injury in horticultural crops to deep freezing (−20 to −40°C) in woody species all presented by “eminent researchers who have had significant contributions to the knowledge of plant cold hardiness”. The information is somewhat technical in nature and while a background in plant physiology and molecular biology would make the book more...