Osmolyte Genetics and Genomics
Diversity, Interactions and Research Tools
Kurt Lamour, Univ. of Tennessee, USA; Sopheen Kamoun, Sainsbury Laboratory, UK
Osmolytes are pathways that pose a risk to agricultural crops and animals. The USDA states they can cause $1-2 billion in losses worldwide each year to soybeans alone. This book brings together the knowledge and tools for genetic and genomic research into osmolytes to help solve the problems these pathogens pose to crops and animals. Armed with the information presented here, researchers can use osmolyte data to solve practical problems and gain insight into future areas of interest.

Plant Roots
Growth, Activity and Interactions with the Soil
Peter J. Gregory, Scottish Crop Research Institute, UK
Each chapter provides detailed discussion backed up by numerous references, diagrams, graphs, and tables... all of excellent quality... I expect this book to become the subject's standard text and as the possession of anyone interested in how roots grow and function.

The Fusarium Laboratory Manual
John F. Leslie, Kansas State Univ., USA; Brett A. Summerville, Royal Botanic Gardens, Sydney, Australia
For the first time in over 20 years, a comprehensive collection of photographs and descriptions of species in the fungal genus Fusarium is available. This laboratory manual provides an overview of the biology of Fusarium and the techniques involved in the isolation, identification, and characterization of individual species and the populations in which they occur.

Induced Resistance for Plant Defence
A Sustainable Approach to Crop Protection
Dale Walters, Scottish Agriculture College, Edinburgh, UK; Adrian Newton, Gary Lyon, both of Scottish Crop Research Institute, Dundee, UK, Editors
This comprehensive book examines in depth the development and exploitation of induced resistance. Chapters review current knowledge of the agents that can elicit induced resistance, genomics, signalling cascades, mechanisms of defence to pests and pathogens, and molecular tools.

Plant Solute Transport
Anthony R. Yeo, Timothy J. Flowers, both of Univ. of Sussex, UK, Editors
This book provides a broad overview of solute transport in plants... Throughout the volume the authors link our increasing understanding of the cellular and molecular bases of solute movement with the rules that those fulfill... The book is directed at postgraduates, researchers, and professionals to plant physiology, biochemistry, and molecular biology—"Biontotechnology, Agronomy, Society and Environment"

Legume Nodulation
Janet Sprent, Univ. of Dundee, Scotland
This important book provides a comprehensive review of our current knowledge of the world's leguminous plants and their symbiotic bacteria. Written by a world authority in the area, Legume Nodulation contains comprehensive details of the following:

- An up-to-date review of legume taxonomy and a full list of the world's genera
- Details of how legumes are distributed throughout the world
- A review of the evolution of legume nodulation

Esau's Plant Anatomy
Meristems, Cells, and Tissues of the Plant Body: Their Structure, Function, and Development
THIRD EDITION
Ray F. Event, Susan E. Eriksen, both of Univ. of Wisconsin, Madison, USA
This revision of the now classic Plant Anatomy offers a completely updated review of the structure, function, and development of meristems, cells, and tissues of the plant body. The text begins with a general overview, chapters then cover the protoplast, cell wall, and meristems, through to phloem, periderm, and secretory structures.

Introduction to Plant Physiology
Fourth Edition
William G. Hopkins, Norman F. A. Nicholson, both of Univ. of Western Ontario, Canada
If you want to gain a strong foundation in the fundamental concepts of plant physiology, this is your book. Updated to include even more modern applications and color within key images and illustrations to make the material easier to understand, streamlined content, the fourth edition provides accurate, modern, and comprehensive, up-to-date overview of all aspects of plant anatomy, emphasizing its application and relevance to modern botanical research. An accompanying CD-ROM provides high-quality photographs and scanning electron microscope images.

Plant Desiccation Tolerance
Matthew A. Jenks, Purdue Univ., USA; Andrew J. Wood, Southern Illinois Univ., USA, Editors
We recommend this publication first of all to plant stress physiologists or plant breeders, as well as researchers who work on plant biochemistry and molecular biology, plant genetics, and seed conservation. A proximal to fields and, in the long term, agronomists in the field would also derive benefit from this book.

From Genomics to Systems Biology
Heribert Hirt, Univ. of Vienna, Austria; Editor
This is the first book to present a comprehensive and advanced discussion on the latest insights into plant stress biology. Starting with general aspects of abiotic as well as biotic stresses, this handbook and ready reference moves on to focus on topics of stress hormones and technical approaches such as proteomics, transcriptomics, and genomics, and their integration into systems modeling.

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Agriculture

Wastewater Use in Agriculture
Guy Levy, F. Fine, A. Bart-Tal, all of The Volcani Center, Israel; Editors
This important new book addresses in detail the use of treated wastewater in agricultural situations and its impact on crops and the soil environment. Coverage includes the composition and treatment of wastewater, health considerations, regulations, and economic aspects.

Herbicides and Plant Physiology
Andrew Cobbold, John Readle, both of Harper Adams Univ, College, USA
The second edition of this very well-received and highly thought-of book has been fully updated with much new information of relevance to the subject, particularly in the areas of cell and molecular biology. The book commences with introductory chapters on weed biology and herbicide discovery and development.

Plant Defense
Warding Off Attack by Pathogens, Pests and Vertebtrate Herbivores
Dale Walters, Scottish Agricultural College
This book provides an overview of all major aspects of plant defense, including defense against pathogens, parasites, and invertebrate and vertebrate herbivores. The book looks at defense mechanisms, including structural and chemical defenses, and constitutive and inducible defenses.

Disease Control in Crops
Biological and Environmentally-Friendly Approaches
Dale Walters, Scottish Agricultural College; Editor
Written by international experts in the subject area, this book examines the development and exploitation (or potential for exploitation) of a range of nonchemical approaches to disease control, with a focus on the need for a greater understanding of crop ecology as the basis for effective disease control in the field.

Wheat
Science and Trade
Brett F. Carver, Oklahoma State Univ., USA, Editor
This up-to-date, comprehensive reference work is designed to expand the current body of knowledge on this staple crop, incorporating new information made available by genetic advances, improvements in the understanding of wheat's biology, and changes in the wheat industry. It covers phylogeny and ontogeny, manipulation of the environment and optimal management, genetic improvement, and utilization and commercialization.

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Vasant Gawariker, V. N. Krishnamurthy, Sudha Gawariker, Manik Dhanorkar, Kalyani Paranjape
Featuring nearly 4,900 terms of interest to all scientists and researchers dealing with fertilizers, The Fertilizer Encyclopedia compiles a wealth of information on the chemical composition of fertilizers and includes information on everything from manufacturing and applications to economical and environmental considerations. It covers behavior in soil, chemical and physical characteristics, physiological roles in plant growth and soil fertility, and more. It's the definitive, up-to-date reference on fertilizers you need.

Postharvest Biology and Technology of Fruits, Vegetables, and Flowers
Gopinadhath Pallyath, Dennis P. Murr, both of Univ. of Guelph, Canada; Avtar K. Hansa, Purdue Univ., USA; Susan Lurie, The Volcani Center, Israel
Providing a comprehensive introduction to development physiology, biochemistry, and molecular biology key to plant growth and fruit development, this volume offers a firm grounding in the basic science of plant development and branching out into the technology and practical applications.

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Neal Eash, Univ. of Tennessee, USA; Cary J. Green, Texas Tech Univ, USA; Aga Farzad, Univ. of Wisconsin-Stevens Point, USA; William F. Berrett, Oregon State Univ, USA
A significant update and revision of the classic introductory soils text, this new edition includes greater coverage of non-agricultural uses of soils ranging from municipal to engineering uses, as well as an expanded discussion of environmental uses of soils and soil conservation.

Vegetation Ecology
Eddy van der Meauel, Univ. of Groningen, Germany; Editor
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