
Book reviews

B. P. LAWSON: Mints: A family of herbs and ornamentals.

Timber Press, in North America: 133 SW 2nd Avenue, Suite 450, Portland, Oregon 97204, USA; in UK and Europe: Timber Press, 2 Station Road, Swavesey, Cambridge, CB4 5QJ, UK, 2002. 239 pp. with 61 photographs, 50 illustrations, 1 map, hard cover. Price: 27.95 USD, 19.99 GBP, 32.95 EUR. ISBN 0-88192-524-1

Many people in modern world need to go back to the natural life style. Plant growing and working in the garden can be good anti-stress and relax tool. Especially plants from the family *Lamiaceae* can bring a lot of pleasure. We can use them as decorative plant such as spice in the kitchen too. Mints is the first book to survey the entire mint family (*Lamiaceae* or *Labiatae*), which includes a surprising variety of plants long valued for their herbal and ornamental uses, from rosemary to lavender, peppermint.

Structure of this book consists of Foreword, Preface, 8 chapters, Further Reading, Glossary and Index of Plant Names. In Foreword by Steven Still we can find that it is a complete text that provides readers with information on the classification, use, and care of mints. Preface involves basic terms, definitions and principles of use the mints family (culinary, medicinal, aromatic or other).

The book consists of these chapters: 1. Mints in History and Lore, 2. Mints in Healths and Home, 3. Herbal Mints, 4. Ornamental Mints, 5. Weedy Mints, 6. Pests and Diseases, 7. Botany of Mints, 8. Catalog of Mints.

Chapter 1 gives basic information about herbs in text from Sumeria, written about 2200 B.C., in the Western world can be found in the Bible, until the Victorian Age, in section: Mints and sacred texts, Mints and Shakespeare, The Language of herbs, History of herb gardens, Doctrine of signatures, and Mints in old herbals. Chapter 2 presents mints as the majority of important culinary herbs, and their special fragrances as the major essences of soaps, colognes, and other personal products. Sections chapter 2.: Mints in healths care, Mints in the home, Mints in the kitchen, Mints in american gardens, Mints in garden design. In chapter 3 can there be found description of some true mint species and other herbal mints. The true mints are the best-known of the herbal mints, which comprise the genus *Mentha*. Some major ornamental mints growing in american gardens are described in Chapter 4 and weedy mints in Chapter 5. Chapter 8 is the most extensive. Here we can find Catalog of Mints, where is complete characteristics some species, varieties and cultivars with illustrations. The catalog is organized alphabetically by genera.

This book primarily serves as a reference manual for people working in agriculture or gardening. Amateur gardeners, students, and teachers can find useful data there, too. This book contains very much information about growing, cultivation and use of this favourite group of plants.

M. FEDOROVA

L. TAIZ & E. ZEIGER: Plant Physiology. 3rd edition.

Sinauer Associates, Inc., Publishers, 23 Plumtree Road, P.O. Box 407, Sunderland, MA 01375-0407, USA, 2002. 690 pp. ISBN 0-87893-823-0. Price: 107.95 USD. URL: <http://www.sinauer.com>

Plant biology is very dynamic science and in the period of four years, which have passed from the second edition an extent of knowledge increased expressively. This world-wide known textbook was significantly overworked and completed by authors Lincoln Taiz, Professor at the University of California at Santa Cruz and Eduardo Zeiger, professor at the University of California at Los Angeles. Some new principal contributors were also invited. Due to increasing length of the book, the two chapters "Energy and Enzymes" and "Gene Expression and Signal Transduction" were transferred to the web site www.plantphys.net. Readers there can find also "topics", "essays", "study questions" and "readings" related to individual chapters. Valuable are new full colour adjusted illustrations.

The basic division of the book has not changed. It consists, as in the previous edition, from an introductory chapter "Plant Cells" and three Units (I - Transport and Translocation of Water and Solutes, II - Biochemistry and Metabolism, III - Growth and Development). The total number of chapters is 25. The first chapter brings basic information on the plant kingdom, particularly on anatomy and plant cytology in detail. Unit I in four chapter deals with water relations of the plant cell and the whole plant, mineral nutrition and solutes transport. Plant metabolism is the topic of the Unit II - Photosynthesis. The key theme of plant physiology is discussed in three chapters devoted to light reactions, carbon assimilation and ecophysiological considerations. Chapter 10 "Translocation in Phloem" includes information about pathway of translocation photosynthate and other organic or inorganic molecules. Following chapter "Respiration and Lipid Metabolism" deal with energetic metabolism. Chapter 12 "Assimilation of Mineral Nutrients" is concerning mechanisms of metabolism of nitrogen, sulphur, phosphorus and important cations. Secondary metabolites are compounds, which defend plant against herbivores and pathogens. Biosynthesis and functions of isoprenoids, phenolics and alkaloids are explained in chapter 13.

Unit III - Growth and Development is the most extensive and actual, with modern conception. It begins with chapter 15 "Cell Walls: Structure, Biogenesis, and Expansion" which deals with the wall composition, biosynthesis of cellulose and matrix polymers, pattern of cell expansion and degradation in relation to pathogen attack. Growth, development and differentiation are the themes of the next part. Extensive information on phytochrome is the subject of a separate chapter 17. Chapter 18 "Blue-Light Responses: Stomatal Movements and Morphogenesis" also deals with photoreceptors. Five chapters are devoted to hormones (Auxins, Gibberelins, Cytokinins, Ethylene and Abscisic acid). They are focused on biosynthesis, transport, physiological effects and molecular mechanisms of hormone action. Chapter "The Control of Flowering" describes mechanisms of autonomous regulation, rhythms, photoperiodism, vernalisation and development of floral meristems. The final chapter "Stress Physiology" explains

mechanisms of numerous stress responses.

Actual edition of this high quality textbook fully reflects new conception of "post genomic" period of plant physiology. Many chapters were significantly completed, namely Unit III - Growth and Development, especially in parts concerning signalling pathways. Textbook is valuable acquisition to the libraries of plant biologists and other specialists interesting in plant biology.

M. REPČÁK