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Growth in Monocotyledons; Periderm Formation in Monocotyledons; Summary; Additional Reading; PART II: EVOLUTIONARY, PHYSIOLOGICAL, AND ECOLOGICAL PLANT ANATOMY; Chapter 5. Evolution and Systematics; Systematic Plant Anatomy; Use of Wood Anatomy in Systematics; Phylogenetic Systematics; Summary; Additional Reading; Chapter 6. Macromorphology; Floral Morphology and Anatomy; Homology of Floral Appendages; Conservative and Vestigial Vascular Bundles; Nectaries of *Salix*; Pseudomonomerous Gynoecia; Inverted Vascular Bundles

The Inferior OvaryLeaves and Stipules; Two-Bundled Structures in Monocotyledons; Summary; Additional Reading; Chapter 7. Structure and Function; Vascular Tissues; Phloem Structure and Translocation; Minor Leaf Veins and Phloem Loading and Unloading; Kranz Anatomy and Photosynthesis; Xylem Structure and Water Movement; Anatomical Responses to Mineral Deficiency; Summary; Additional Reading; Chapter 8. Ecological Anatomy; Habitat and Plant Structure; Ecological Leaf Anatomy; Ecological Wood Anatomy; Roots; Frost Hardiness; Anatomy and Pollution; Summary; Additional Reading

PART III: ECONOMIC AND APPLIED PLANT ANATOMYChapter 9. Genetics and Plant Breeding; Molecular Genetic Analysis; Anatomy as an Indicator of Hybridization; Gene Expression and Anatomical Traits; The Wilted Gene; Trichome Development; Corn Leaf Development; Cell Wall Genes; Floral Development; Anatomy, Heredity, and Plant Breeding; Wood Quality; Summary; Additional Reading; Chapter 10. Defense Mechanisms and Structural Responses of Plants to Diseases, Pests, and Mechanical Injury; The Nature of Plant Defenses; Responses of Plants to Wounding and Invasion by Microorganisms

Cytological Reactions to Invasion by Parasites

Sommario/riassunto

From this modern and profusely illustrated book, the reader will learn not just the basics, which are amply reviewed, but also how plant anatomy is integrated with a wide variety of other disciplines, such as plant breeding, forensic analysis, medicine, food science, wood and fiber products, and the arts. The author presents the basic concepts and terminology of plant anatomy with a special emphasis on its significance and applications to other disciplines, and addresses the central role of anatomy by consolidating previously scattered information into a single volume. Integrative Plant Ana
