



**IN THE NAME OF ALLAH,  
MOST GRACIOUS, MOST MERCIFUL**



# **PLANT BIOLOGY**

## *In Brief*

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## PREFACE

Plant biology is a branch of biological sciences that studies all aspects of plants. Plants support human beings needs as a source of food, fiber, wood, paper, spices, drugs, and oxygen. To deal with environmental issues, one of the requirements is the knowledge of plant sciences. The discipline of botany has subdivisions dealing with various aspects of a plant, such as plant physiology, plant ecology and so forth. Traditionally, the botanists have and still continue in many universities and institutes to study other organisms traditionally not regarded as animals such as bacteria, fungi, and photosynthetic protists, as well as other common entities (viruses, viroids, for example). The aim of this book is to acquire a grasp of the fundamentals of botany (from the Greek word *botanē*, meaning “plant”) to appreciate how botanical knowledge is gained and how it can be used. Moreover, this book provides a brief account of the structure and function of plants as well as the fundamental significance of these organisms to the ecology of our planet.

As indicated by the title, this book provides an overview of living things (Chapter 1). Chapter 2 gives a brief description of the plant kingdom (plantae) according to the six kingdoms classification. An idea of the main structure and function of a plant is dealt within Chapters 3, 4 and 5. Classical genetics and heredity as well as the molecular basis of inheritance are covered in Chapter 4. Finally, Chapter 6 summarizes plant ecology and human future. Basic molecular components found in plant cells are discussed briefly in Appendix A. Nowadays, the trend to molecular biology justifies a brief account of plant biotechnology given in Appendix B.



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