



PLANT BIOCHEMISTRY

FOURTH EDITION

Hans-Walter Heldt

Albrecht-von-Haller-Institute of Plant Science, University Goettingen, Germany

Birgit Piechulla

Institute for Biological Sciences, University Rostock, Germany

The fully revised and expanded fourth edition of *Plant Biochemistry* presents the latest science on the molecular mechanisms of plant life. The book not only covers the basic principles of plant biology, such as photosynthesis, primary and secondary metabolism, the function of phytohormones, plant genetics, and plant biotechnology, but also addresses the various commercial applications of plant biochemistry. Plant biochemistry is an important field of basic science explaining the molecular function of a plant, as well as an applied science in the position to contribute to the solution of agricultural and pharmaceutical challenges.

Plants are the source of important industrial raw material such as fat and starch but they are also the basis for the production of pharmaceuticals. It is expected that in the future, gene technology will lead to the extensive use of plants as a means of producing sustainable raw material for industrial purposes. As such, the techniques and use of genetic engineering to improve crop plants and to provide sustainable raw materials for the chemical and pharmaceutical industries are described in this edition. The latest research findings have been included, and many areas of future research are identified.

KEY FEATURES:

- Offers the latest research findings in a concise and understandable manner
- Presents plant metabolism in the context of the structure and function of plants
- Includes more than 300 two-color diagrams and metabolic schemes
- Covers the various commercial applications of plant biochemistry
- Provides extensive references to the recent scientific literature
- Figures available for download on companion site:
www.elsevierdirect.com/companions/9780123849861



ACADEMIC PRESS

An imprint of Elsevier
elsevierdirect.com

ISBN 978-0-12-384986-1

