

Howell, S.H.: **Molecular Genetics of Plant Development**. - Cambridge University Press, Cambridge - New York - Melbourne 1998, 365 pp. ISBN 0-521-58784-0.

The author claims that the aim of this book is to present classical plant development in modern, molecular-genetic terms. The book is divided into 13 chapters: Approaches to the Study of Plant Development, Cell Lineages and Positional Information, Embryogenesis, Seedling Development, Shoot Development, Leaf Development, Transition to Flowering, Flower Development, Development of Floral Reproductive Organs and Gametophytes, Pollination and Apomixis, Seed and Fruit Development, Root Development, Vascular Development. The headings of most of the chapters sound quite familiar and can be considered to belong under "classical plant development". However, the way, in which the individual areas are treated, is really modern, molecular genetic, in the best sense of the word. All the chapters bring an up-to-date knowledge, especially of the genetic and cell biological background of the different processes. The reader will find data on numerous mutants, namely of *Arabidopsis thaliana* and/or maize, which enabled to understand processes like organ formation or perception and transduction of light and hormonal signals. It concerns especially mutants in embryogenesis (*Short integument*, *Gnom/emb 30*, *Monopteros*, *Gurke*, *Knolle*), in photomorphogenesis (*HY*, *Cop*, *Det*, *Fusca*), in homeotic genes acting in flower organ development (*Apetala*, *Agamous*, *Pistillata*, *Deficiens*, *Globosa*, etc.) or in genes involved in perception of hormone ethylene (*Etr*, *Ctr*, *Ers*, *Eim*). Also, many examples of transgenic plants, both sense and antisense, are given, which brought the evidence for the respective role of the studied gene(s) in plant development. The book contains number of carefully selected original illustrations and photographs.

In conclusion, I would like to say, that the aim of the book, *i.e.* to present classical plant development in modern terms, was fully achieved. The book is excellent, and it can be highly recommended for advanced students and researchers in the fields of plant development and plant molecular biology.

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