Colombia (1), India (1), Japan (1), Mexico (1), Poland (1), PR China (1) and Vietnam (1). Furthermore, two pages are devoted to the description of the editor's scientific career. In the preface, the editor himself characterized the content of each of the individual contributions. Finally, a detailed index terminates the publication.

In the first contribution, L.T. Evans (CSIRO, Australia) briefly emphasizes the necessity to further enhance plant breeding efforts by both conventional and biotechnological procedures. Similarly, D.N. Duvick (Iowa State University, USA) in the second paper analyses crop breeding in the 21st century. He also presents his optimistic view that "the current tripartite division of responsibilities will prevail: private sector, public sector, and participatory (*i.e*. farmer-breeder partnership)".

However, the subsequent contributions do not represent a comprehensive treatise of the topics presented in the title. It is not clear why just the described innovations and crops have been selected for the inclusion into the book. Maize, sunflower, wheat and especially soybean are dealt in detail. The book also includes a thorough study on cassava and rubber. On the other hand, other important crops such as sugar cane, beet, potato or barley are absent totally.

Some papers are devoted to genetic diversity, breeding, genotype and environment interaction or marker-based selection. My attention was attracted by a very competent analysis of the contribution entitled "Physiological determinants of crop growth and yield in maize, sunflower and soybean: their application to crop management, modelling and breeding" comprising 50 pages. Nevertheless, among the production innovations I would also expect *e.g*. remote sensing, precision agriculture or agroforestry.

In general, the book represents an important sign of a revitalization of research interest on crop breeding, physiology and production. I would not recommend it to those researchers and/or students who expect to gain efficiently a general overview of the topics presented by the book's title. But it could be effectively used by those interested in either crop species included in the individual contributions or in some special procedures of crop breeding, production and physiology.

L. NÁTR (*Praha*)

Darby, I.A., Hewitson, T.D. (ed.): ***In Situ* Hybridization Protocols. -** Humana Press, Totowa 2006. 269 pp. ISBN 1-58829-402-1

In situ hybridization is already 25 years known method, which allows to detect specific RNA and DNA sequences at the cellular level within tissue sections. The third edition of this book focuses on tissue and cell *in situ* hybridization.

The book is divided into 19 chapters written by prominent authorities on particular fields. Chapters are independent and self supporting, describing in detail techniques for preparation, detection and tissue hybridization. Nonradioactive labelling methods and amplification techniques have been improved and represent a big advantage in *in situ* hybridization. Among the new developed techniques described are peptide nucleic acid (PNA) probes for plant *in situ* hybridization, viral diagnostic, cell proliferation detection and quantitation of *in situ* hybridization. Derivative techniques such as the use of PNA probes, identification of transplanted cells, histones, nick end labelling for apoptosis and plant *in situ* hybridization are also included. Further presented techniques are for expanded cell culture, expanded embryology-developmental gene detection and tissue microarrays. Every chapter consists of short summary, introduction to the specific technique, necessary material, detailed laboratory work flow, useful tips for successful performance of experiments and references.

The book is written with a broad readership in mind. It provides information for all researchers to set up this technique in the laboratory, as well as to update the recent protocols, which are already in use.

H. PLCHOVÁ (*Praha*)