Jain, M., Brar, D.S., Ahloowalia, B.S. (ed.): **Somaclonal Variation and Induced Mutations in Crop Improvement.** Current Plant Science and Biotechnology in Agriculture. Volume 32. - Kluwer Academic Publishers, Dordrecht - Boston - London 1998. 615 pp. NLG 500.00. ISBN 0-7923-4862-1.

Clonal variation is derived through tissue culturing plant cells or tissues. Much of clonal variation probably arises by genetic recombination and chromosomal rearrangement. The first Section of this book contains 13 reviews on the use of somaclonal, gametoclonal and protoclonal variation in plant breeding. Topics covered include clonal variation in various crops, cereals, forage grasses, ornamental plants, medical plants, forest trees, and reviews such as somaclonal variation and *in vitro* selection for crop improvement, and chromosomal basis of somaclonal variation. Mutation breeding has made a significant contribution in the improvement of crops. According to FAO/IAEA data more than 1700 mutant cultivars have officially been released. The second Section describes in 9 reviews the importance of induced mutagenesis in vegetatively propagated plants, in cereals and legumes, ornamental plants, fruit trees, sugarcane, *etc.* The most interesting is probably Section 3 that focuses on the molecular aspects of clonal variation and mutagenesis and presents reviews on molecular and biochemical characterization of somaclonal variation, recombination-mediated gene integration in plants, T-DNA insertion mutagenesis and the untagged mutants, phenotypic variation between transgenic plants and transposable elements and genetic variation.

The 29 general and specific review articles in this volume present an overview of basic information on the use of induced mutations and genetic variability in plant breeding. Graduate students and investigators in the fields of plant genetics, molecular biology and breeding will find a valuable guide to the current work being done in this rapidly developing area.

T. GICHNER (*Praha*)

Spudich, A.J., Gerhart, J., McKnight, S.L., Schekman, R. (ed.): **Annual Review of Cell and Developmental Biology.** Volume 13. - Annual Reviews Inc., Palo Alto 1997. 834 pp. Price Individual USA $ 64.00, elsewhere $ 69.00, Institutional USA $128 00, elsewhere $ 138.00. ISBN 0-8243-3113-3.

Readers of Biologia Plantarum will find especially interesting the reviews: Assembly and enlargement of the primary cell wall in plants (D.J.Cosgrove), Light control of plant development (C. Fankhauser, J. Chory) and Plant cell morphogenesis (J.E. Fowler, R.S. Quatrano). Other topics covered include: Yeast transcriptional regulation, Mitochondrial preprotein translocase, Light-right asymmetry in animal development, Microtubule dynamics, Cadherin-based adherens junctions, Actin in *Drosophila* ovary, Adipocyte differentiation, Cyclin-dependent kinases, Eukaryotic DNA replication, Signaling by the LIN-12/Notch pathway, Cell adhesion molecule structure, Bacterial cell division, Neural cell adhesion molecules, Chemosensory transduction in bacteria, Functions of SRC family kinases, Spermann's organizer, Nuclear assembly, Kinesin motors, and Vacuolar (H^+)-ATP.

The reviews include extensive references to the literature and are written in such a way, as to be valuable both to advanced students and scientist.

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