

Acknowledgements

The authors are grateful to the Council of Scientific and Industrial Research for financial assistance and to the authorities of the Berhampur University for facilities.

References

- DARLINGTON, C. D., LA COUR, L. F.: *The Handling of Chromosomes*. — Allen and Unwin, London 1969.
- LANGE, N. A.: *Handbook of Chemistry*. — Mc Graw Hill Co., New York 1956.
- SHARMA, A. K., SHARMA, A.: *Chromosome Technique — Theory and Practice*. — Butterworths, London 1972.
- SHARMA, C. B. S. R., BEHERA, B. N., VELAYUDHAM, N.: A modified schedule for sugar-cane chromosomes. — *Curr. Sci.* 45 : 28, 1976.
- WOLFF, S.: Handling of root tips. — In: PRESCOTT, D. M. (ed.): *Methods in Cell Physiology*. Pp. 215—227. Acad. Press., New York 1964.

BOOK REVIEW

NIGON, V., LUEKEN, W.: *Vererbung. Allgemeine Biologie Band 4*. — Gustav Fischer Verlag, Stuttgart 1976. 213 pp., 32,— DM.

This book represents the 4th volume of "Biologie Générale" edited by Pierre-Paul Grassé, Paris. The originally French edition includes further: *Structure and Function of Cells* (A. Hollande), *Reproduction and Sexuality* (P. Laviolette and P. P. Grassé), *Experimental Embryology* (E. Wolff) and *Evolution* (P. P. Grassé). The French version of this book, written by professor V. Nigon (University of Lyon) and published in 1966 by the publishing House Masson et Cie, Paris, was destined to be translated by professor D. W. Lueken, university of Giessen. The delay in the translation of about 9 years ("from various reasons") led the translator to revise both the concept and the content of most chapters. This resulted in a "new" book with two authors.

About 200 pages are divided into 15 chapters, 3 appendixes, recommended literature and subject + author index. The explanation of genetics has the following schedule: Chemistry of nucleic acids and their components, biochemistry of DNA replication, repair, recombination and mutations, synthesis and structures of RNA species, mechanism, phases and regulation of transcription, proteosynthesis, genetic code (up to this point 45 pages), gene action, its regulation, structure of genophores in procaryotes, recombination in procaryotes (which includes host-parasites pecifity, role of plasmidesm, bacteriophages, transformation *etc.*), structure of genophores in eucaryotes (chemistry and morphology of chromosomes, cell cycle, mitochondrial and plastid genophores), chromosomal recombination in eucaryotes (diploidy, meiosis, alleles, autogamy, crosses, autosomal and gonosomal heredity in diploids, special cases of heredity like trisomics, predetermination, gene mapping *etc.*), cytoplasmic heredity (mitochondrial, plastid, plasmal, infection), mutations (up to this point 154 pages), genetics of populations and human genetics. One appendix includes the description of the most frequently used models in pro- and eucaryotes, the second one the statistical and biochemical methods like ultra centrifugation, de- and renaturation and hybridisation of nucleic acids, autoradiography, sequence analyses and gene synthesis. At the end of each chapter the important literature is quoted — mostly reviews and books.

The described schedule, although not usual in the majority of genetical textbooks, was extremely well exploited by both authors for logical explanation of general genetics. Two further advantages make the book valuable: the high scientific level and concise style.

J. VELEMÍNSKÝ (*Praha*)