

- SALIN, M. L., HOMANN, P. H.: Changes of photorespiratory activity with leaf age. — *Plant Physiol.* **48** : 193—196, 1971.
- SMILLIE, R. M.: Photosynthetic and respiratory activities of growing pea leaves. — *Plant Physiol.* **37** : 716—721, 1962.
- TAKABE, T., AKAZAWA, T.: Oxidative formation of phosphoglycolate from ribulose-1,5-diphosphate catalyzed by *Chromatium* ribulose-1,5-diphosphate carboxylase. — *Biochem. biophys. Res. Commun.* **53** : 1173—1179, 1973.
- WAREING, P. F., KHALIFA, M. M., TREHARNE, K. J.: Rate-limiting processes in photosynthesis at saturating light intensities. — *Nature* **220** : 453—457, 1968.
- ZELITCH, I.: The improving the efficiency of photosynthesis. — *Science* **188** : 626—633, 1975.

BOOK REVIEW

STRICKBERGER, M. W.: *Genetics*. — Second Edition, Macmillan Publishing Company, Inc., New York, Collier Macmillan Publishers, London, 1976. Pp. 548, Figs. 548, Tabs. 139.

The development of genetics stimulated many authors to generalization and categorization of knowledge, in order to make it accessible not only to scientific workers, but also to students. This trend has been reflected in Prof. M. W. Strickberger's "Genetics", whose first edition appeared in 1968. The second edition is extended by the most recent knowledge, especially that of molecular genetics.

The publication is divided into six parts, each being subdivided into chapters or subchapters.

The first part is devoted to the identification of the genetic material. The author deals with the history of genetics, cell division, chromosome morphology and ultrastructure, reproduction cycles, characterization of nucleic acids, their synthesis and replication.

The second part involves 10 chapters. In the main, the author deals with the transfer and distribution of the genetic material. Besides Mendel laws, he discusses the probability and statistical treatment, the relationship between dominance and recessivity, multiple alleles, the effect of environmental factors on gene expression, gene interaction, lethality, sex determination and sex linkage, cytoplasmic heredity, heredity of quantitative characters and their analysis. This part is of the largest extent and involved most information on the classical genetics interpreted in the light of the latest findings.

The third part of the publication is devoted to the arrangement of the genetic material, namely to the linkage, recombination and mapping of genes of diploid organisms, recombination of fungi, bacteria and viruses.

The fourth part involves the changes and structure of the genetic material. Besides changes in chromosome number it discusses those in chromosome structure, gene mutations, induced genetic changes in general and gene fine structure.

In the fifth part the latest knowledge of the function of the genetic material is concentrated: genetic control of proteins and their synthesis, the fundamentals of the genetic code, gene regulation and differentiation of organisms beginning with viruses, bacteria and ending with multicellular organisms.

The sixth part deals with the genetic study of populations, concerning gene frequency and population equilibrium, changes in gene frequency, inbreeding and heterosis, genetic structure of populations and evolution of species. The final chapter brings a few philosophical questions, as e.g.: "What are the perspectives of evolution of man and in what direction this evolution will occur?"

Each chapter of the book is supplemented with suitable illustration material (diagrams, photographs and tables) and with a list of practical and theoretical exercises, and concluded by a list of literature cited. At the end of the book author and subject indexes are attached. The book is written in a vivid, intelligible, and very instructive style.

EVA MIADOKOVÁ (Bratislava)