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BOOK REVIEWS

ALEXANDER, M. (ed.): *BIOLOGICAL NITROGEN FIXATION. ECOLOGY, TECHNOLOGY, AND PHYSIOLOGY*. — Plenum Press, New York — London 1984. 247 pp. US \$ 51.00.

The book presents the proceedings of the course on Biological Nitrogen Fixation and its Ecological Basis, which was held in Caracas in 1982 for participants from the Third World Countries.

With the exception of the associative dinitrogen fixation with *Azospirillum*, particular attention has been devoted to the theoretical and practical aspects of the association between *Rhizobium* and legumes. Half of ten more or less comprehensive chapters present current knowledge of the taxonomy of *Rhizobium*, the carbon metabolism of *Rhizobium* cells and bacteroids, the relationship between photosynthesis and biochemistry of dinitrogen fixation, the effect of ecological factors on *Rhizobium* population in soils, and on the plant and bacterial factors affecting specificity of symbiosis, nodulation and symbiotic dinitrogen fixation.

On the basis of the nodulation and dinitrogen fixation studies in soybeans a potential powerful genetic and breeding strategy for improvement of agronomic performance of legume plants is discussed. Two following chapters are devoted to principles of the selection of *Rhizobium* strains for use in legume seed inoculants and to in detail analysis of current use of legume inoculant technology.

The book is recommendable as a very advisable text-book for students and graduate courses and for all those interested in practical application of biological dinitrogen fixation.

V. ŠKRDLA (Praž)

D'LEI, F. M., KAMRIN, M. A. (ed.): *PCBs: HUMAN AND ENVIRONMENTAL HAZARDS*. — Butterworth Publishers, Boston — London — Sydney — Wellington — Durban — Toronto 1983. 443 pp Hardcover £ 55.00.

Polychlorinated biphenyls (PCBs) are synthetic compounds that do not conduct electricity and are capable of withstanding high temperature. They have been used extensively in the electrical industry and in coolant systems, as sealants for wood and cement surfaces and as vapour suppressants for insecticide preparations. The objective of this book, based on a symposium held in Michigan, 1982, was to discuss the impact of PCBs on human health and on our environment, and steps to be taken to solve the adverse pollution effects. The introductory part of the publications reviews the biological effects of PCBs, particularly in the Great Lakes region and presents data helping to understand the PCBs contamination problem. Chapters in part II focus on monitoring and analysing PCBs in various samples. A detailed study of the use of high resolution capillary gas chromatography is included. The full health significance of these compounds came to public attention in 1968 when over 1000 Japanese became ill after having been exposed to rice oil contaminated with PCBs. Parts III and IV of this book summarize toxic, teratogenic and carcinogenic effects of PCBs in animals and the possible effects on human health. The concluding section covers the role of government agencies in the regulation of PCBs exposure and presents a full text of a panel discussion on problems in legislating and regulating toxic materials.

An up-to-date monograph that provides an in-depth understanding and description of all aspects of human and environmental hazards of PCBs.

T. GICHNER (Praž)