

- Stadtman, E.R.: Oxidation of free amino acids and amino acid residues in proteins by radiolysis and by metal-catalyzed reactions. - *Annu. Rev. Biochem.* **62**: 797-821, 1993.
- Suzuki, T., Tada, O., Makimura, M., Tohri, A., Ohta, H., Yamamoto, Y., Enami, I.: Isolation and characterization of oxygen-evolving Photosystem II complexes retaining the PsbO, P and Q proteins from *Euglena gracilis*. - *Plant Cell Physiol.* **45**: 1168-1175, 2004.
- Tiwari, B.S., Bose, A., Ghosh, B.: Photosynthesis in rice under a salt stress. - *Photosynthetica* **34**: 303-306, 1997.
- Tripathy, B.C., Bhatia, B., Mohanty, P.: Inactivation of chloroplast photosynthetic electron-transport activity by Ni^{2+} . - *Biochim. biophys. Acta* **638**: 217-224, 1981.
- Tripathy, B.C., Mohanty, P.: Zinc-inhibited electron transport of photosynthesis in isolated barley chloroplasts. - *Plant Physiol.* **66**: 1174-1180, 1980.
- Wellburn, A.R.: The spectral determination of chlorophylls *a* and *b* as well as total carotenoids, using various solvents with spectrophotometers of different resolution. - *J. Plant Physiol.* **144**: 307-313, 1994.

Kimble, J.M., Rice, C.W., Reed, D., Mooney, S., Follett, R.F., Lal, R. (ed.): **Soil Carbon Management. Economic, Environmental and Societal Benefits.** - CRC Press, Taylor and Francis Group, Boca Raton - London - New York 2007. 268 pp. ISBN 13: 978-1-4200-4407-2.

The request to review this book was quite welcome to me. The title suggested that the content deals with carbon that definitely plays a far reaching role not only for plants but literally for the whole mankind. And soils are increasingly considered as the most precious value in nature. Furthermore, the subtitle of the book mentions the necessity to evaluate soil management also from the point of not only environment but also economic and environmental impact. And, last but not least, the editors represent well known experts not only in the very soil and carbon science but they are also engaged in formulating suggestions and measures needed to be realised in order to avoid economic crashes due to otherwise unavoidable changes of ecosystems and their functions.

I am aware that the introductory paragraph of this review simply repeats the book title. But it is my attempt to emphasize that the reader is really offered what the title of this book promises. Furthermore, the promise is fulfilled at a very high scientific standard. And this is not always the case of many publications. The Foreword was written by J. Moseley, farmer and former deputy secretary at the U.S. Department of Agriculture, and W. Richards, farmer and past chief of Soil Conservation service of the same Department. Detailed information about the editors and a list of contributors comes next. All the contributors are from the USA.

The contributions are divided into 3 sections as follows. Section I. "Overview, Policy, and Economics" contains 4 contributions (pp. 3 to 98) dealing with soil carbon management and its various values and benefits. Section II "On-Site Benefits" (pp. 99 to 164) with

4 contributions is devoted to particular conditions of cropland and grazing systems, organic farming practices, physical, chemical and biological soil properties. The largest Section III "Off-Site Benefits (pp. 165 to 262) includes 7 chapters. Seemingly, this section is relatively outside the direct soil management. Nevertheless, I find this part extremely valuable. The far reaching effects of erroneous soil management are too often overlooked and their impact neglected until a collapse in soil fertility bursts out. The contributions pay attention to soil erosion, wetlands, wildlife, flooding, surface water quality, urban lands, prairies, savannas and forests.

An Index terminates the book.

In the individual contributions many detailed results have been incorporated and lists of valuable references. However, I most appreciate the conclusions and warnings on the real thread of soil fertility destruction. Furthermore, the mutual relationship between soil properties and carbon sequestration is very well documented. And last but not least, the assessment of various soil managements takes into account not only the very soil properties, but also the economic, environmental and societal consequences.

Many examples and analyses included in the contributions are related to the conditions of the United States. But the conclusions and recommendations apply globally. If my extremely positive impression on the reviewed book attracts more readers – scholars, researchers and students, but also ecologists, agronomists and soil managers or decision makers, then my intention when writing this review is accomplished.

L. NÁTR (*Prague*)