- thaliana (L.) Heynh. Plant Physiol. 116: 715-723, 1998.
- Cherian, S., Reddy, M.P., Ferreira, R.B.: Transgenic plants with improved dehydration-stress tolerance: progress and future prospects. Biol. Plant. **50**: 481-495, 2006.
- Dennis, E.S., Dolferus, R., Ellis, M., Rahman, M., Wu, Y., Hoeren, F.U., Grover, A., Ismond, K.P., Good, A.G., Peacock, W.J.: Molecular strategies for improving waterlogging tolerance in plants. - J. exp. Bot. 51: 89-97, 2000
- Henmi, T., Miyao, M., Yamamoto, Y.: Release and reactive-oxygen-mediated damage of the oxygen-evolving complex subunits of PSII during photoinhibition. Plant Cell Physiol. **45**: 243-250, 2004.
- Li, S., Pezeshki, S.R., Goodwin, S., Shields, F.D., Jr.: Physiological responses of black willow (*Salix nigra*) cuttings to a range of soil moisture regimes. Photosynthetica **42**: 585-590, 2004.
- Liu, W.-J., Yuan, S., Zhang, N.-H., Lei, T., Duan, H.-G., Liang, H.-G., Lin, H.-H.: Effect of water stress on photosystem 2 in two wheat cultuvars. Biol. Plant. **50**: 597-602, 2006.

- Mitsch, W.J., Gosselink, J.G. (ed.): Wetlands. 2<sup>nd</sup> Edition. Van Nostrand Reinhold, New York 1993.
- Palo, R.T.: Distribution of birch (*Betula* spp.), willow (*Salix* spp.), and poplar (*Populus* spp.) secondary metabolites and their potential role as chemical defense against herbivores. J. chem. Ecol. **10**: 499-520, 1984.
- Pezeshki, S.R., Anderson, P.H., Shields, F.D., Jr.: Effects of soil moisture regimes on growth and survival of black willow (*Salix nigra*) posts (cuttings). - Wetlands 18: 460-470, 1998.
- Sachs, M.M., Freeling, M., Okimoto, R.: The anaerobic proteins of maize. Cell 20: 761-767, 1980.
- Vu, J.C.V., Gesch, R.W., Allen, L.H., Boote, K.J., Bowes, G.: CO<sub>2</sub> enrichment delays a rapid, drought-induced decrease in Rubisco small subunit transcript abundance. - J. Plant Physiol. 155: 139-142, 1999.
- Williams, J., Bulman, M.P., Neill, S.J.: Wilt-induced ABA biosynthesis, gene-expression and down-regulation of rbcS messenger-RNA levels in *Arabidopsis thaliana*. - Physiol. Plant. 91: 177-182, 1994.

Wojtkowski, P.A.: **Introduction to Agroecology: Principles and Practices.** - Haworth Food & Agricultural Products Press, An Imprint of The Haworth Press, New York - London - Oxford 2006. 404 pp. USD 79.95. ISBN 13: 987-1-56022-317-7.

Agroecology is a compilation of views on the way how to exploit harmoniously land and nature for production of food, fuel, fiber, and other resources essential for the life of people. Contemporary agroecology mainly explores interrelationships between the nature and agricultural activities of the people. The book "Introduction to Agroecology: Principles and Practices" of Prof. P.A. Wojtkowski provides to the readers a wide spectrum of information in readable and well-arranged form.

According to the author, agroecology should be more than the raising of crops. Through the various associations, agroecology should add new insights, promotes an interchange of ideas how not to exploit the nature and enhances the agriculture in different regions of the world.

The book is divided into 18 chapters. The main goals of the agroecology are specified in the first chapter, and mainstreams and alternative forms of agriculture are characterized. Further, the attention is given to the questions, concerning the territorial basis and the landscape planning, biodiversity, agrobiodynamic conceptions, problems of the certainty-sustainability, climatic risks and productive threats – drought, cold, heat, and soil depletion. Following chapters solve the problems of the agroecosystems, inputs to the agriculture, use of

agrochemicals, weeds, pests and diseases protection. Furthermore, the importance of trees in agriculture is emphasized. Within the frame of each chapter not only technological, but also ecological and economical aspects are solved. One chapter is also given to the social and community questions, concerning the quality of life, challenges and economic gains of agroecology. In the last chapters, problems of the ecosystems integration, intensity exploitation of the soil and agricultural landscape are solved.

Advantage of the book lies in its complexity and wide range, comprising of not only questions and problems of the long- and short-term risks related to the farming on the land in the agricultural landscape, but also social and economical aspects. Book aids to the reader to orientate oneself in the full range of the interrelationships and interface among the nature and agriculture, shows the agroecology in its entity and advises to the reader, how to do it and how to achieve "friendly" and harmonious exploitation of the nature and agricultural landscape.

The book is interesting by its conception and complexity and makes a useful source of information for all readers from university teachers and researchers to farmers and other sustainable producers.

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