

Zima, M., Černá, K. (ed.): **Ecophysiology of Plant Stress**. Proceedings of the 5th International Conference. - AGROTÁR, Nitra 2002. 206 pp. ISBN 80-88943-16-7.

The 5th International Conference "Ecophysiology of Plant Stress", organized by the Department of Plant Physiology of the Slovak Agricultural University in Nitra, 3 - 4 July 2002, was dedicated to the 70th anniversary of the birthday of Professor Jozef Repka, former head of the Department. The paperback book presents proceedings of the Conference. Abstracts of ninety contributions have been prepared by 168 authors from the Czech Republic, Egypt, Germany, Japan, Poland, Slovakia, Sweden, and USA.

The abstracts have been arranged into 4 sections: Section I (6 contributions) deals with general aspects and new approaches to stress (stress avoidance, effects of atmospheric CO₂ concentration, stress effect on root system, improvement of frost tolerance by proline overproducing mutants, *etc.*). Section II (38 contributions) discusses the hormonal, metabolic and enzymatic changes during stress (effects of toxic metals, drought, salt and osmotic stress, chilling resistance, protection against oxidative stress, and antioxidant enzymes, role of abscisic acid, cytokinins and gibberellins, growth in

in vitro cultures, antropogenic environment pollution, herbicides, enzyme polymorphism, irradiance and energy balance in photosynthesis, *etc.*). Section III (8 contributions) focuses on stress in forest trees (stress effects on photosynthesis, and growth and primary production, use of electronic diagnostic instruments, and chlorophyll fluorescence for stress level detection, *etc.*). The last Section IV (38 contributions) covers a wide variety of topics ranging from discussion on photosynthesis and primary production (chlorophyll concentration and SPAD values, stomata and transpiration, cultivar differences and breeding, *etc.*) to the problems of stress effects on plant production (drought susceptibility, irrigation with saline water, fertilization, dinitrogen fixation, resistance to pathogens, heavy metal stress, soil tillage, *etc.*).

The book is accompanied with an Author index, and individual abstracts contain a short list of references. Plant scientists, mainly from the Central European countries, can use these proceedings as a good source of information on the topics discussed.

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