Šebánek, J., Sladký, Z., Procházka, S. (ed.): **Experimental Morphogenesis and Integration of Plants.** - Academia, Praha; Elsevier, Amsterdam 1991. 417 pp. [In English.]

This book is the third one in this century dealing with the structural integrity of plants mediated through growth regulators. The first one, "On Integration in Plants", was published in English in 1967 by Harvard University Press, USA. The second one, "Experimentální Morfologie Rostlin" [Experimental Plant Morphology], was published in Czech in 1983 by the Academia publishing house in Prague.

The aim of this book is to expand and elaborate the information on plant morphogenesis with respect to hormonal integrity drawing on the world literature as well as on its own experimental work.

The book is divided in five chapters. Chapter one "Methods and General Aspects of Studies of Experimental Plant Morphogenesis", deals with plant hormones as factors of morphogenesis at the molecular, subcellular, cellular, tissue and organ levels and on the level of plant integrity. It includes the basic information about the chemical constitution, the biosynthesis and metabolism of phytohormons as well as studies on the transport of phytohormons in the plant (root and stem) and studies on the methods developed for detecting and quantifying the endogenous growth regulators in plant tissues. Chapter two "Plant Integrity in the Sphere of Vegetative Organs" deals with the growth correlations of stems, roots, cotyledons, leaves, tubers and bulbs in relation to the phytohormones of stimulating and inhibiting nature. Attention is also devoted to the endogenous phytohormones effects on the senescence, abscision, apical dominance, regeneration, polarity, dormancy and movements, and summarizes the effect of some exogenous factors (radiation, gravity, water, chemicals, temperature and microorganisms) in plant integrity. Chapter three "Transformation of the Vegetative Apex into a Flower Primordium" presents different convenient experimental models used in studies on morphogenesis and differentiation of flowers. Chapter four "Experimental Morphogenesis of Seeds and Fruits" summarizes the studies on the morphogenetic transformation and structural integrity during the development of the seed and fruit tissues. Attention is also devoted to the studies concerning the influence of endogenous and exogenous growth regulators on the dormancy of these reproductive organs (seed and fruit). Chapter five deals with the phylogenetic aspect of morphogenesis and with the practical application of morphogenesis regulation in the growing and breeding practice. It presents good concrete examples.

Experimental data are presented in the form of figures (127) and tables (18), with one unique list of references. This book is an excellent contribution to the literature of plants morphogenesis and so it is a good source of information for all scientists working in biological, agricultural and forestry research as well as for university teachers of natural sciences, agronomy, horticulture and forestry.

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