

Procházka, S., Šebánek, J. *et al.*: **Regulátory Rostlinného Růstu**. [Regulators of Plant Growth.] - Academia, Praha 1997. 395 pp. ISBN 80-200-0597-8.

Czech university teachers, students as well as researchers in many fields certainly welcome appearance of a monograph dealing with plant growth regulators in Czech language. After brief Introduction, chapter 2 summarizes a basic mechanism of action of phytohormones. The following chapters are devoted to individual groups of phytohormones: auxins (chapter 3), gibberellins (chapter 4), cytokinins (chapter 5), abscisic acid (chapter 6) and ethylene (chapter 7). Each of these chapters contains chemical and structural characteristics of individual phytohormones, their synthesis, metabolism, transport, mechanism of action and role in plant growth, development, and response to stresses. Other growth regulators as brassinosteroids, jasmonic acid, polyamines, *etc.*, are described in chapter 8. The further two chapters concern synthetic growth inhibitors, namely herbicides. Very useful survey of methods for determination of contents of individual phytohormone in plant tissues is presented in chapter 11. Application of exogenous growth regulators is essential for *in vitro* cultures and the chapter 12 is focused on this item. The chapter 13 concerns introduction of genes for phytohormone synthesis from *Agrobacterium*, *Rhizobium*, *Pseudomonas* or *Xanthomonas* into plant genome. The chapter 14 shows the possibilities of regulation of distribution and transport of assimilated by phytohormones. The following chapters are devoted to the role of phytohormones in regulation of growth and development of plants and their individual organs (rhizogenesis - chapter 15, plant integrity - chapter 16, apical dominance - chapter 17, tuberization - chapter 18, flowering - chapter 19, fruiting - chapter 20, seed dormance and germination - chapter 21, bud dormance, plant senescence and abscission of leaves, flowers, and fruits - chapter 22). The small chapter 23 is focused to affection of plant movements by auxins. The further important role of phytohormones is in the responses of plants to different biotic and abiotic stresses. It is a pity, that chapters 24 and 25 only very briefly summarize the role of phytohormones in plant resistance to pathogens, drought, heat, flooding, chilling, and pollutants. The last chapter deals with practical application of synthetic growth regulators.

The authors provide a compendium of the most important results concerning natural and synthetic plant growth regulators in very readable form. I hope that the book will stimulate students for research in this field.

J. POSPÍŠILOVÁ (*Praha*)