Khripach, V.L., Zhabinskii, V.N., de Groot, A.E. (ed.): **Brassinosteroids: A New Class of Plant Hormones.** - Academic Press, San Diego - London 1999. 456 pp. USD 85.00. ISBN 0-12-406360-8.

The reviewed book is focused on brassinosteroids which belong to 5 classes of phytohormones: the auxins, the cytokinins, the gibberellins, abscisic acid and ethylene. Steroidal structure of brassinosteroids firstly discovered in pollen of *Brassica napus* in 1979 approved the hormonal function of steroids also in plants not only in the mammals, the insects and the fungi.

The survey of present knowledge on brassinosteroids is presented in the book in 11 chapters. The historical aspects, structure and classification of brassinosteroids including a new system of abbreviations are topics of the first 2 chapters. Isolation and spectroscopic determination by NMR, mass, IR and CD spectroscopy and X-ray analysis are described in chapters III and IV. The present knowledge of brassinosteroid biosynthesis and metabolism were clarified in experiments exploring ^{13}C and ^{15}N labelling, in brassinosteroid-deficient mutants and in biotransformation studies (chapter V). Chapters VI and VII deal with basic synthetic methods of cyclic part and the chains and the syntheses of natural brassinosteroids. Chapter VII is devoted to syntheses of brassinosteroid analogues. The analogues are necessary not only for practical application but also for structure-activity relationship, and for investigation of biosynthesis and metabolism of natural products. Physiological mode of action is elucidated in chapter IX which also contains a lot of information on interaction with other phytohormones, effect on cell membranes, on protein and nucleic acid metabolism, photosynthetic apparatus and other brassinosteroid actions, mechanism of reception and transport and resistance to diseases. The data obtained in bioassays can be useful both for structure-activity relationships (chapter X) and as a basis of compound selection in field trials and practical application in agriculture (chapter XI). Structure, occurrence and spectral characteristics are summarized in appendix.

High variability of the brassinosteroid physiological effects attracts attention of many researchers. Although these substances are subject of many reviews, this book is the first monography on brassinosteroids in English which covers all aspects of brassinosteroid studies. Special attention is paid to the results obtained in Eastern Europe which have never been reviewed before and are hardly accessible.

A. GIAUDINOVÁ (*Praha*)