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Great progress has been made in elucidation of diverse mechanisms in which micronutrients alter or regulate plant functioning. The book overviews the role of micronutrients as essential constituents of cell structures, constituents or activators of enzymes and electron carriers, and regulators of developmental processes or responses to abiotic and biotic stresses.

The book comprises two parts: “Roles and deficiency responses” and “Occurrence, evaluation and amelioration of deficiencies”. After general introduction into this research field, chapters 2 to 8 of Part I are devoted to individual micronutrients (Fe, Mn, Cu, Zn, Mo, B and Cl). Each chapter has unified structure and contains four sections: general characteristics, uptake, transport and distribution, role in plants and deficiency responses. The functioning of micronutrients in biosynthetic pathways and their protective role are emphasized. New approaches based on immunocytochemical localization of specific proteins, analyses of mutants, cloning and sequence analysis of genes and their expression in transgenic plants are included.

The Part II (chapters 9 to 11) centres to restriction of the production potential of the world crop plants by micronutrient deficiencies. The chapter 9 focuses on occurrence of deficiency of individual micronutrients and on factors contributing to it. The chapter 10 deals with methods for diagnostics and evaluation of deficiencies, and chapter 11 with ways of amelioration of negative impacts of micronutrient deficiency on crop plants.

This readable book with many tables and figures and more than one thousand references can serve not only as useful source of information for researchers in the area of plant nutrition but also as a textbook for advanced students.

J. POSPÍŠILOVÁ (*Praha*)