PIRSON, A., ZIMMERMANN, M. H. (ed.): Hormonal Regulation of Development. (Encycl. Plant Physiol., N. S. Vol. 9. Pp. 445–510. Springer-Verlag, Berlin–Heidelberg–New York 1980.
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BOOK REVIEW

TABATABAI, M. A. (ed.): SULFUR IN AGRICULTURE. Number 27 in the series Agronomy. — American Society of Agronomy, Inc., Crop Science Society of America, Inc., Soil Science Society of America, Inc., Madison 1986. XVIII + 668 pp. US $ 52.00 (+ 75 c outside USA).

In a system that classifies N, P and K as primary fertilizers, sulfur is designated as secondary nutrient fertilizer, although it is an essential element for plant and animal growth and development. The importance of sulfur in these processes is related largely to its being a component of indispensable amino acids synthesized by plants and microorganisms and necessary for nutrition of animals, which are mostly unable to synthesize them.

The book consists of 24 chapters the first of which deals with chemistry and microbiology of the sulfur cycle, sulfur metabolism in plants, roles and requirements of sulfur in plant nutrition and with occurrence and abundance variation of stable sulfur isotopes in nature. The forms and reactions of organic and inorganic sulfur compounds in soils are discussed in the next two chapters. Attention of chapters 3 and 4 paid to sulfur content and forms in atmosphere, precipitation and irrigation waters, which can have detrimental, beneficial or no effect on the crop production in specific areas. Both these chapters emphasize the necessity of a reduction of antropogenic sulfur emissions causing considerable damage to crops and forests and in this way also to animal and human health and welfare. The next six chapters treat the geographical distribution of sulfur deficiency and plant response to sulfur supply in the USA, Canada and tropical countries, and the use of sulfur or sulfur compounds for reducing salt and Na hazards in soils and irrigation waters. Measurements of sulfur content in soils, plants, atmosphere and surface water are described in the following two chapters. Sulfur availability indexes, fertilizer sources, economics of fertilizer use and world reserves of sulfur are covered in the next group of chapters. The concluding chapter is focussed on the effect of sulfur on seed, forage and cereal flour baking quality.

The book provides a good summary of the present state of knowledge on availability, significance and effect of sulfur in the agricultural production. It is well edited, clearly arranged, supplemented by subject index including plant names, list of contributors and table for conversion factors for SI and non-SI units. It can be recommended as a source of up to date information and literature for agronomists and advanced students or research workers.

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