

Singh B.K. (ed.): **Plant Amino Acids. Biochemistry and Biotechnology.** - Marcel Dekker, New York - Basel - Hong Kong 1999. 621 pp. USD 195.00. ISBN 0-8247-0204-2.

Agricultural production has increased dramatically, in both quality and quantity, around the world in the last fifty years. The use of modern herbicides to control weeds has been one of the factors for improvement in agricultural production. In recent years several new classes of low-dose herbicides that inhibit biosynthesis of amino acids in plants have been developed (glyphosate analogues, sulfonylureas, imidazolinones, triazoles, triazolopyrimidines, pyrimidinylsalicylates). The commercial success of these herbicides has stimulated research interest in plant amino acid biosynthesis in both academia and industry. The present book provides an exhaustive coverage of various aspects of amino acid biosynthesis in plants.

The first chapter describes how amino acids and their derivatives fit into the larger scheme of nitrogen

metabolism in plants. The remaining chapters are broadly separated into two general parts. First, the genetics, enzymology, compartmentation, and regulation of the biosynthesis of individual and families of amino acids are described. This part also covers amino acid uptake and transport in plants. The second part discusses the practical aspects of amino acid biosynthesis in plants. It examines herbicidal inhibitors of amino acid biosynthesis and herbicide-resistant crops and details how to enhance the nutritional value of different plant products in relation to amino acids and their derivatives.

This book includes comprehensive and authoritative reviews from leading experts in various areas of research and will be useful to undergraduate and graduate students, researchers in different disciplines, and extension personnel.

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