Iron Nutrition in Plants and Rhizospheric Microorganisms

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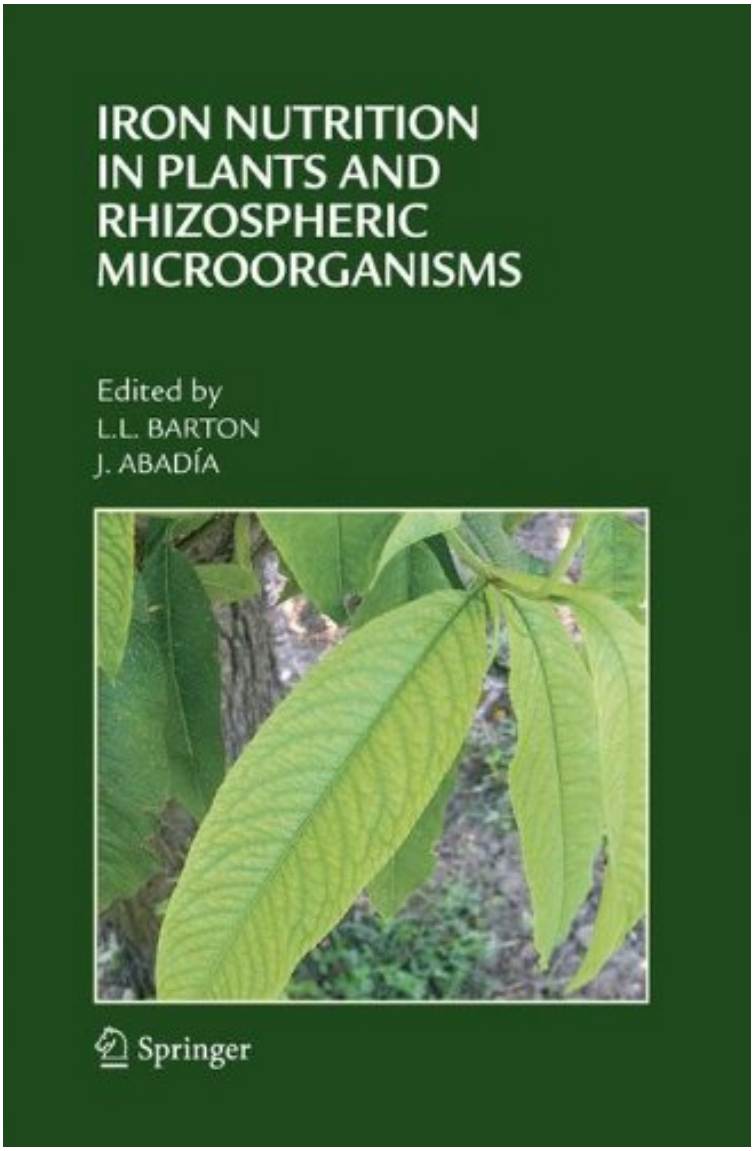

#4187191 in Books Springer 2007-10-04 2007-10-04Original language:EnglishPDF # 1 9.25 x 1.17 x 6.10l, 1.93 #File Name: 1402066236477 pages | File size: 17.Mb

From Brand: Springer : Iron Nutrition in Plants and Rhizospheric Microorganisms before purchasing it in order to gage whether or not it would be worth my time, and all praised Iron Nutrition in Plants and Rhizospheric Microorganisms:

This book provides a comprehensive review on the status of iron nutrition in plants. It contains updated reviews of

most relevant issues involving Fe in plants and combines research on molecular biology with physiological studies of plant-iron nutrition. It also covers molecular aspects of iron uptake and storage in Arabidopsis and transmembrane movement and translocation of iron in plants. This book should serve to stimulate continued exploration in the field.

From the Back CoverThis book uses an interdisciplinary approach to provide a comprehensive review on the status of iron nutrition in plants. International scientists discuss research on acquisition of iron by strategy I and strategy II plants. These reviews summarize a variety of plant species and include both laboratory and field observations. Topics covered in this book include: plants as a source of iron for animals and humans, iron translocation in the plants, iron-stimulated activities that influence crop yield and fruit tree productivity, iron uptake by plants as influenced by microorganisms (i.e. free living soil microorganisms, symbiotic nitrogen-fixing and pathogenic bacteria), the role of plant hormones in iron transport, iron-metal competition in phytoremediation, root zone activities involving interactions between minerals and organic matter, the role of microbial siderophores in rhizospheric iron cycling, iron storage as phytoferritin, proteomic and metabolic studies associated with iron stress response, methods for studying iron metabolism including stable isotopes, and the correction of iron deficiency through the use of synthetic or natural chelates. Additionally, chapters summarize the use of Arabidopsis to enhance our understanding of the complex activities associated with iron metabolism in plants. This book should serve to stimulate continued exploration of iron activities in plant biology and rhizospheric environments.