Title:	Iron homeostasis in plants and its crosstalk with copper, zinc, and manganese
Authors:	Mankotia, Samriti (/jspui/browse?type=author&value=Mankotia%2C+Samriti) Swain, Jagannath (/jspui/browse?type=author&value=Swain%2C+Jagannath) Satbhai, Santosh B. (/jspui/browse?type=author&value=Satbhai%2C+Santosh+B.)
Keywords:	Metal homeostasis Nutrient stress Nutrient crosstalk Plant metabolism Rhizosphere
Issue Date:	2021
Publisher:	Elsevier
Citation:	Plant Stress, 1.
Abstract:	Micronutrients like copper (Cu), manganese (Mn), Iron (Fe), and Zinc (Zn) are essential for plants, and their functions are tightly linked for vital metabolism. The normal concentration range for each of these metals in the plant is narrow, with both deficiencies and excesses causing severe physiological implications. Maintaining an optimum level of these redox-active metals in the plant requires balanced activities of transporters that mediate import into the cell, proper distribution to where it is needed and storage, and use in metalloproteins and metalloenzymes within the cell. Understanding the complexities of interaction between Fe and other micronutrients and how it defines the health of the plants would facilitate improved plant growth strategies on soils with the low/high levels of these metals, with implications for agriculture and phytoremediation. The review briefly discusses the role of these metals in plant and expands on iron homeostasis and its crosstalk with Cu, Zn, and Mn.
Description:	Only IISERM authors are available in the record.
URI:	https://doi.org/10.1016/j.stress.2021.100008 (https://doi.org/10.1016/j.stress.2021.100008) http://hdl.handle.net/123456789/4649 (http://hdl.handle.net/123456789/4649)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need To Add…Full Text_PDF..pdf (/jspui/bitstream/123456789/4649/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF..pdf)	Only IISERM authors are available in the record.	15.36 kB	Adobe PDF	View/Open (/jspu

Show full item record (/jspui/handle/123456789/4649?mode=full)

(/jspui/handle/123456789/4649/statistics)