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Title:	Chapter 17 - Biotechnological approaches for generating iron-rich crops
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:	Anemia biofortification biotechnology crop improvement iron deficiency transgenic plants
Issue Date:	2021
Publisher:	Science Direct
Citation:	Plant Nutrition and Food Security in the Era of Climate Change, 437-451.
Abstract:	Iron is an essential micronutrient for almost all living organisms as it is involved in several important metabolic processes such as respiration, DNA synthesis, and photosynthesis. Plants are the ultimate dietary source of iron and its deficiency is the main cause of anemia and lowered immunity in humans. Iron deficiency in the human population can be alleviated by increasing the iron content of edible parts of plants, known as biofortification. In this chapter, we describe our recent understanding of iron uptake regulation, transport, as well as storage within plants and recent progress in generating iron-enriched crops using biotechnological tools. Finally, we discuss possible genetic modifications for iron biofortification of crops and making them resilient to iron-deficient soils.
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