Record Nr. Autore Titolo	UNINA9910337944603321 Bhattacharjee Soumen Reactive Oxygen Species in Plant Biology [[electronic resource] /] / by
Pubbl/distr/stampa	Soumen Bhattacharjee New Delhi : , : Springer India : , : Imprint : Springer, , 2019
ISBN	81-322-3941-5
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (197 pages)
Disciplina	546.72159
Soggetti	Oxidative stress Plant science Botany Agriculture Plant physiology Plant biochemistry Oxidative Stress Plant Sciences Plant Physiology Plant Biochemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. ROS and Oxidative Stress: Origin and Implication 2. ROS and Antioxidants: Relationship in Green Cells 3. ROS in Ageing and Senescence 4. ROS and Oxidative Modification of Cellular Components 5. ROS in Plant-Pathogen Interaction and Programmed Cell Death 6. ROS and Regulation of Photosynthesis 7. ROS Associated Stress Tolerance and Signaling 8. ROS: Central Component of Signaling Network in Plant Cell under Stress 9. ROS and Oxidative Stress in Crop Plants: Insight from Genomic and Proteonomic Era.
Sommario/riassunto	This book highlights the latest advances made in the niche area of Reactive Oxygen Species and Redox processes in plants. It offers a valuable guide for researchers and students alike, providing insights into sensing, detox scavenging, the role in oxidative deterioration, and

1.

signaling associated with redox-regulatory processes in plants. The book also dramatically demonstrates how these amazingly resourceful molecular species and radicals are poised at the core of a sophisticated network of signaling pathways, and act as vital regulators of plants' cell physiology and cellular responses to the environment. The molecular language associated with ROS-mediated signal transduction, which produces modulations in gene expression that determine plants' stress acclamatory performance, is also discussed. The book subsequently provides information on current trends in redox proteomics and genomics, which include efforts to gain a fuller understanding of these redox players' role in cellular processes, and to further the application of this knowledge to technology and agriculture. Given its scope and format, the book offers a valuable asset for students of Plant Sciences, Agriculture, and Molecular Biology, as well as readers engaged in research on and teaching ROS Biology. .