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Sommario/riassunto	<p>Plants are continuously exposed to a wide range of environmental conditions, including cold, drought, salt, heat, which have major impact on plant growth and development. To survive, plants have evolved complex physiological and biochemical adaptations to cope with a variety of adverse environmental stresses. Among them, reactive oxygen species (ROS) are key regulators and play pivotal roles during plant stress responses, which are thought to function as early signals during plant abiotic stress responses. ROS were long regarded as unwanted and toxic by-products of physiological metabolism. However, ROS are now recognized as central players in the complex signaling network of cells. Therefore, a fine-tuning control between ROS production and scavenging pathways is essential to maintain non-toxic levels in planta under stressful conditions through enzymatic and non-enzymatic antioxidant defense systems. We focus on the roles of ROS during plant abiotic stress responses in this Research Topic. Plant responses to multiple abiotic stresses and effects of hormones and chemicals on plant stress responses have been carefully studies. Although functions of several stress responsive genes have been characterized and possible interactions between hormones and ROS are discussed, future researches are needed to functionally characterize ROS regulatory and signaling transduction pathways. Plants are continuously exposed to a wide range of environmental conditions, including cold, drought, salt, heat, which have major impact on plant</p>

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