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Adaptation of Plants to Environmental Changes: Light and Temperature in Plant Development

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Message from the Guest Editor

Light and temperature are two of the most important signals regulating plant growth and development. In addition to their contribution to plant energy requirements, light and temperature ensure optimal plant development by providing temporal and predictive information. The molecular dissection of plant temperature responses has made it evident that light receptors such as the phytochromes are tuned to sense light quality, quantity and temperature inputs. Thus, photoreceptors and their signaling components are involved in diverse mechanism interconnecting light, temperature and temporal information coming from photoperiodism and circadian signals. Understanding the cross-talk between them is essential to address how plants utilize these environmental cues to coordinate their development and to tackle major challenges in agriculture such as climate change and the preservation of biodiversity. This Special Issue aims to provide an update of the current research on the role of light and temperature in plant growth and development.



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Special Issue



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Message from the Editor-in-Chief

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