



The Impact of LED (Light-Emitting Diode) Spectra on Plant Growth and Quality

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Message from the Guest Editors

Light-emitting diodes (LEDs), a new method, have potential and great importance for use in agricultural production and plant development. LEDs (small in size) can be constructed in arrays big enough to provide enough PAR but still emit less heat than “traditional” high-intensity discharge lighting lamps. LEDs are also known for durability and long operating lifetime. LED arrays can be designed to have wavelength specificity, so that each plant responds differentially to different light wavelengths due to specific differences in their photoreceptors. Plenty of research has investigated the role of LEDs in enhancing plant shape, edible quality, biomass and growth rate. Simultaneously, research has demonstrated the effects of LEDs on chemical compounds, chlorophyll level, and different protein levels of many plant species.

For this Issue, articles that focus on the impact of LED light spectra on plant tissue culture, growth and yield, essential oil content and chemical composition of pharmaceutical plants, plant biochemistry, plant physiology, plant metabolites, and economical analysis of controlled environment agriculture (CEA) systems using LED lights are most welcome.





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Message from the Editor-in-Chief

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