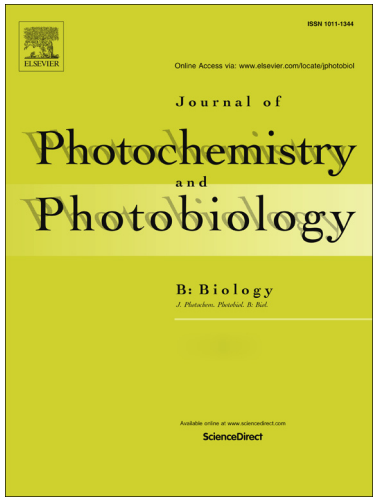

Editorial

Challenge of the present era is to have more and better crops for a dry, hot, hungry world, improving the process of photosynthesis may be one of the solutions...

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Editorial

Special Issue: Stress and Photosynthesis

Guest Editor: Dr. Anjana Jajoo

Challenge of the present era is to have more and better crops for a dry, hot, hungry world, improving the process of photosynthesis may be one of the solutions….

Increasing population has led to food shortage as well as environmental changes which are of grave concern for the mankind globally. Providing food for the ever-increasing population is one of the serious challenges, especially when changing environmental conditions are posing threat to crop productivity. The adverse effects of climate changes in the form of drought, high temperature etc…will certainly affect overall crop production. Adaptation to such environmental stresses is crucial for the survival of all living organisms.

Abiotic stress conditions cause extensive losses to agricultural production worldwide.Plants are regularly exposed to a variety of stresses throughout growth, many of which have a detrimental effect on growth and development. As a consequence, plants have evolved an equally wide variety of defense systems to minimize the negative impacts of stress. Understanding the mechanisms by which plants perceive environmental signals and transmit the signals to thecellular machinery to activate adaptive responses is of fundamental importance.The development of technologies that exploit natural plant stress responses has never been of greater importance as efforts are made to strengthen food crop provision for a growing global population in the face of current and future food supply insecurities. It is essential to recognize and enumerate the responses of plants to varying environmental conditions.

Plant's acclimation to a particular abiotic stress condition requires a specific response that is tailored to the precise environmental conditions the plant encounters. Thus, molecular, biochemical and physiological processes set in motion by a specific stress condition might differ