



## Photosynthesis under Climatic Extremes

Guest Editors:

**Dr. Sajad Hussain**

College of Agronomy, Sichuan  
Agricultural University, Wenjiang,  
Chengdu 611130, China

**Dr. Anshu Rastogi**

Laboratory of Bioclimatology,  
Department of Ecology and  
Environmental Protection,  
Poznan University of Life  
Sciences, Piątkowska 94, 60-649  
Poznan, Poland

**Prof. Dr. Marian Brestic**

Department of Plant Physiology,  
Slovak University of Agriculture,  
A. Hlinku 2, 94976 Nitra, Slovakia

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### Message from the Guest Editors

Dear Colleagues,

Photosynthesis is the major process leading to primary production on Earth. The process of photosynthesis is very dependent on environmental variables such as photoactive radiation, water availability, temperature, CO<sub>2</sub>, salinity, etc. For most crop plants, change in the temperature and CO<sub>2</sub> extremes leads to considerable changes in leaf morphology and structure, dry matter of roots, stems, leaves, and whole plant, as well as the photosynthetic rate, transpiration, and stomatal conductance. Under climatic extremes such as temperature, drought, and CO<sub>2</sub>, there is a need for thorough improvement in photosynthetic key limiting factors such as stomatal conductance, mesophyll conductance, biochemical capacity combined with RuBisCo, Calvin–Benson cycle, thylakoid membrane electron transport, non-photochemical quenching, and carbon metabolism or fixation pathways. This Special Issue deals with different approaches to detecting, understanding, and improving the photosynthetic activity of different crops under extreme environmental conditions.





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## Editor-in-Chief

### **Prof. Dr. Dilantha Fernando**

Department of Plant Science,  
University of Manitoba, Winnipeg,  
MB R3T 2N2, Canada

## Message from the Editor-in-Chief

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*Plants* Editorial Office  
MDPI, St. Alban-Anlage 66  
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