

Special Issue

Effects of CO₂ on Crop Growth and Quality

Message from the Guest Editor

Global climate change has emerged as an important environmental challenge due to its potential impact on Earth's biological systems. The current atmospheric carbon dioxide concentration (CO₂) has reached to 400 $\mu\text{mol CO}_2 \text{ mol}^{-1}$ and is predicted to be $\pm 550 \mu\text{mol CO}_2 \text{ mol}^{-1}$ by the middle of the 21st century. The rising CO₂ concentration may affect the growth, physiology, water-use efficiency, yield and quality, of crops. It is anticipated that grain yield will increase by 15%–17% with elevated atmospheric CO₂ concentration, however, could be counteracted by inferior grain quality. This Special Issue aims to focus on the topics that includes the effects of CO₂ on growth, photosynthesis, dry matter production, yield, interactive effects of CO₂ and soil moisture, root dynamics of plants, N translocation dynamics into the developing grains, grain protein concentration and composition, and mineral composition, particularly zinc and iron. Innovative and original research conducted under both greenhouse and field experiment conditions are welcome.

Guest Editor

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Editor-in-Chief

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