

Special Issue

Air Pollution and Food Security

Message from the Guest Editors

Food production is highly vulnerable to climate change and air pollution, posing a threat to global food security. Emissions, such as methane (CH₄), nitrous oxide (N₂O), ammonia (NH₃), and crop residue burning, from agriculture in turn affect air quality and climate. Air pollution regulation and climate change adaptation have been identified as important strategies to safeguard food production. It is urgent and necessary to elucidate how climate and air pollution interact to affect agriculture, and the impact of food production on air quality and climate. This Special Issue aims to examine the state of the art in this important topic, investigating topics may include, but are not limited to, the following: air quality modeling, air pollution modeling with remote sensing, land cover/use changes and air pollution, crop modeling, crop mapping, interactions between air quality and climate, interactions between air pollution and agriculture, effects of air pollution on food production, effects of agricultural emissions on air quality, climate change and food production, climate change and crop phenology.

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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

Dr. Daniele Contini

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