Special Issue

Mechanisms and Effects of Biochar in Regulating the Soil Nitrogen Cycle

Message from the Guest Editors

Biochar has emerged as a promising soil amendment for regulating N cycling and mitigating N losses in agricultural systems. Nevertheless, the effects of biochar on soil N transformation are highly context-dependent, varying with factors such as soil type, cropping systems, and tillage practices due to the complexity of environmental interactions. Therefore, we initiated a Special Issue in *Agronomy* entitled ***'Mechanisms and Effects of Biochar in Regulating the Soil Nitrogen Cycle'***. This research topic aims to advance our understanding of biochar-mediated N cycling processes and will focus on the following:

- ***Investigating how biochar alters soil nitrogen processes and elucidating the underlying mechanisms. Submissions addressing experimental and monitoring methods to quantify these processes, including microbial drivers, are also welcome.***
- ***Exploring strategies to enhance soil nitrogen fertility and fertilizer nitrogen use efficiency through biochar application.***
- ***Assessing the long-term agroecological impacts of biochar, including benefits for nutrient retention and greenhouse gas mitigation, to better understand its contribution to sustainable agriculture.***

Guest Editors

Dr. Zunqi Liu
Dr. Xu Yang
Prof. Dr. Yu Lan

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Agronomy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agronomy@mdpi.com

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Editor-in-Chief

Prof. Dr. Leslie A. Weston
Gulbali Centre for Agriculture, Water and Environment Research, Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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