

Special Issue

Anaerobic Soil Disinfestation: A Tool for Non-Fumigant-Based Integrated Soil-Borne Disease and Pest Management

Message from the Guest Editors

Since its development in early 2000, anaerobic soil disinfestation (ASD), also known as biological soil disinfestation or reductive soil disinfestation, has proven to be a promising non-fumigant approach for soil-borne disease management in high-value crops worldwide. Due to the biological mechanisms involved, ASD's effects vary depending on factors such as soil type, temperature, previous cropping history, potential for anaerobiosis, type and rate of carbon sources applied, and target pathogens. This Special Issue invites papers from developed and developing countries on cutting edge research facilitating broader adoption and understanding of ASD. In particular, we welcome papers on the development of environmental thresholds for suppressing a range of soil-borne pests by ASD, studies on mechanisms of disease and weed suppression and plant growth enhancement by ASD, potential adverse and positive environmental impacts of ASD, the integrated use of ASD with other non-fumigant-based tactics, the current status of ASD adoption in different parts of the world, and potential limitations and barriers to adopting ASD from stakeholders' perspectives.

Guest Editors

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Deadline for manuscript submissions

closed (31 December 2023)



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Editor-in-Chief

Prof. Dr. Leslie A. Weston

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