

Special Issue

Driving Sustainability: Innovations in Producing Eco- Friendly Substrates for Soilless Culture Systems

Message from the Guest Editors

Researchers have been exploring new materials and formulations for soilless cultivation substrates to enhance plant growth and nutrient uptake. One promising development is the use of biochar as a substrate, which has been shown to improve water retention, nutrient availability, and microbial activity in the root zone. Furthermore, because of the environmental concerns associated with peat extraction, our special issue aims to highlight innovative methods and technologies for developing sustainable alternatives to peat substrates. From biodegradable foams crafted from natural materials to organic substrates derived from agricultural waste, there is a growing interest in exploring eco-friendly substitutes that can reduce the horticultural industry's reliance on peat-based substrates. By continuing to explore new materials, optimize nutrient delivery systems, and elucidate the interaction between soilless cultivation substrates and plants, the research progress in soilless cultivation substrates will lead to the development of innovative solutions that have the potential to revolutionize modern agriculture.

Guest Editors

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Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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