

Special Issue

Innovations in CFD for Agricultural Structures and Controlled Environments

Message from the Guest Editor

Computational fluid dynamics (CFD) provides an innovative and powerful tool that enables the agricultural sector to simulate various processes in the controlled environments of greenhouses and different agricultural structures. CFD facilitates analysis through the simulation of very important parameters. Furthermore, this innovative technique contributes to the assessment of existing ventilation systems by identifying areas of poor ventilation, evaluating the effectiveness of their design parameters, and providing the opportunity to adopt better ventilation strategies with a view to ensure uniformity. In the ever-evolving field of agriculture, the CFD models offer a versatile tool that can be integrated into complex agricultural processes and provide the verification of obtained experimental data. The provision of accurate and explicit information and prediction results in the development of well-stated agricultural management practices. CFD technology is increasingly used to formulate solutions to mitigate environmental issues and optimize cost–revenue efficiency in relation to agricultural structures and their respective production systems.

Guest Editor

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