



## Controlled Environment Agriculture for Sustainable Farming

Guest Editor:

**Dr. Anna Siedliska**

Department of Metrology and  
Modelling of Agrophysical  
Processes, Institute of  
Agrophysics Polish Academy of  
Sciences, Doświadczalna 4, 20-  
290 Lublin, Poland

Deadline for manuscript  
submissions:

**20 October 2024**

### Message from the Guest Editor

Controlled environment agriculture (CEA) is the cultivation of plants in a controlled and optimized environment, where factors like temperature, humidity, light, and nutrient levels are precisely managed. This practice enables year-round production and ensures high-quality crops. CEA provides several benefits, such as improved crop yield, decreased dependence on external resources, reduced environmental footprint, and the ability to grow crops in challenging climates or limited land areas. It represents an innovative and sustainable farming approach that can tackle the food production challenges of our evolving world. While CEA has the potential to enhance sustainability in agriculture, it is important to carefully manage its implementation and address potential challenges.

### Keywords

- controlled environment agriculture
- sustainable agriculture
- vertical farming
- greenhouse cultivation
- hydroponics
- aquaponics
- water/nutrient management
- resource efficiency
- innovation in agriculture





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Marc A. Rosen**

Faculty of Engineering and  
Applied Science, University of  
Ontario Institute of Technology,  
Oshawa, ON L1G 0C5, Canada

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [GeoRef](#), [Inspec](#), [AGRIS](#), [RePEc](#), [CAPlus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Environmental Studies*) / CiteScore - Q1 (*Geography, Planning and Development*)

## Contact Us

*Sustainability* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sustainability](http://mdpi.com/journal/sustainability)  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)  
[X@Sus\\_MDPI](#)