

Special Issue

High-Voltage Plasma Applications in Agriculture

Message from the Guest Editors

Innovative technologies in modern food supply chains are a crucial issue for upholding sustainable societies, such as regenerative agricultures. The food supply chain in the agricultural sector consists of two phases: preharvest (production in agriculture) and postharvest (preserving the quality of the product during storage and transport). High electric fields and plasmas can affect biological components through various processes—such as causing an increase in electrical charge in living organisms and chemical reactions between active species and biological components—and have been actively studied worldwide. To accelerate the progress of novel academic fields, sharing information of state-of-the-art research is critical. Thus, this Special Issue covers high-voltage and plasma applications for (1) the promotion of plant seed germination and seedling growth; (2) nitrogen fixation as a fertilizer; (3) the inactivation of pathogenic bacteria; (4) improving harvest yield; (5) maintaining the quality and safety of products; (6) the food processes of agricultural products; and (7) compact high-voltage devices and plasma generators.

Guest Editors

Prof. Dr. Kazunori Koga

Dr. Takamasa Okumura

Prof. Dr. Vida Mildažienė

Dr. Katsuyuki Takahashi

Prof. Dr. Koichi Takaki

Deadline for manuscript submissions

closed (28 February 2026)



Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



mdpi.com/si/213823

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

[mdpi.com/journal/
agronomy](https://mdpi.com/journal/agronomy)





Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



[mdpi.com/journal/
agronomy](https://mdpi.com/journal/agronomy)



About the Journal

Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet.

Agronomy is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), GEOBASE, PubAg, AGRIS, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Agronomy and Crop Science)