Special Issue

Innovative Strategies in Potato Cultivation: Enhancing Agronomic Performance, Nutritional Quality, and Post-Harvest Stability

Message from the Guest Editors

Modern potato cultivation strategies focus on integrating advanced agrotechnical and biological technologies to increase yields, tubers' nutritional value, and post-harvest shelf life. The use of precision farming, including soil sensors, GPS systems, and satellite data analysis, allows for the optimization of fertilization and irrigation, while the selection and engineering of varieties resistant to biotic and abiotic stresses, such as drought, pathogens, or salinity, affects the stability of production. Biostimulants and soil microorganisms, e.g., mycorrhiza and rhizobacteria, improve mineral utilization and support plant health. In addition, genetic modifications make it possible to enrich potato tubers with nutrients such as mineral salts (Fe, Zn) or antioxidants, and storage strategies using controlled atmospheres and natural germination inhibitors extend tuber life without the need for chemicals. Integrating these approaches can significantly increase the efficiency of potato production while reducing environmental impact.

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Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

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