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Sustainable Mechanisms for Crop Development, Productivity and Quality Promotion

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Message from the Guest Editor

Modern intensive unbalanced agriculture initiates physical, chemical, and biological soil degradation, decreases in soil and crop biodiversity, pests and weeds developing resistance to pesticides, increases in GHG emissions and energy consumption, and risks of food pollutions. Environmentally friendly and energy-efficient farming technologies are being integrated into agricultural production systems with the greatest economic, energy, and environmental benefits. There are several sustainable ways prevent problems and warrant successful crop growth, productivity, and quality development: balance fertilizers and/or pesticides, new generation crop varieties and seed treatments, and more sustainable and precise ploughless tillage and seedbed preparation technologies.

In addition, this Special Issue will present investigations on new-generation organic or nano-organic, bio-organic, bacteria-inoculated fertilizers and bio-preparations for primary and additional fertilization, bio-pesticides, combinations of mechanical, physical, and biological control of harmful organisms, and crop functionality increase by cover-cropping, inter-cropping, and multi-cropping.



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Special Issue



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Message from the Editor-in-Chief

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