Special Issue

Advanced Research of Rhizosphere Microbial Activity

Message from the Guest Editors

Rhizosphere is one of the most important hotspots in soils that harbor a huge number of microbial species. Root exudates serve as carbon and energy sources for heterotrophic microbes, and meanwhile have selective power to shape the microbial communities around root systems.Microbes in the rhizosphere could help plant nutrition and water uptake and plant growth promotion by hormone and siderophore production; in addition, they can protect plants against pathogenic microbes, while, in certain conditions, some of them become pathogenic also. Climate change, land use change and different management options are challenges to evaluate soil health in connection with the plant–microbe interactions. Rhizosphere microbial activity can be detected and measured in several ways. The newly developed methods, such as community-level physiological profiling, different enzyme activity measurements—alone or together with the microbiome diversity by next generation DNA sequencing—and other methodical approaches focusing on rhizosphere microbial activity in all types of agricultural soils, including grassland and pasture soils, are welcome to this Special Issue.

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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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