



Phytic Acid and Mineral Biofortification Strategies: From Plant Science to Breeding and Biotechnological Approaches

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Message from the Guest Editors

Mineral deficiencies, particularly for iron and zinc, affect over two billion people worldwide. Mineral biofortification includes different approaches aimed to increase the level and/or bioavailability of minerals in the edible parts of the plants, particularly the seeds. Two main strategies to biofortify seeds consist in: i) reduction in the content of phytic acid, one of the main “antinutrients” affecting mineral bioavailability; ii) increase in the concentration of minerals.

Breeding programs or transgenic approaches aimed to develop biofortified crops should exploit basic plant science results in order to maximize the utility of the modified crops, avoiding the display of negative pleiotropic effects.

This Special Issue aims to highlight new developments in our understanding of how perturbation in phytic acid content and in seed mineral accumulation contributes to plant function, growth, and response to the environment.

Contributions to this Special Issue are invited from scientists working at all system levels, including the molecule, cell, organism and environment/ecological perspectives.





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Message from the Editor-in-Chief

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