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Transcriptomic and Proteomic Response of Plants to Nutritional Deficiency

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Message from the Guest Editor

To survive, plants have evolved a diversity of adaptations. With the completion of more and more plant genome sequencing, dissecting the underlying gene functions and the regulatory networks under various stresses, including nutritional deficiency, are becoming the key issues under post-genome Era. Of these, transcriptomic and proteomic responses of plant to nutritional deficiency are in the spotlight in the plant nutrition field. Like other living organisms, plants require 17 essential macro-and microelements (C, H, O, N, P, K, S, Ca, Mg, Cl, Fe, Mn, Cu, Zn, Mo, Ni, and B) for development and growth. In addition, some mineral elements (Na, Si, Al, and Se) are not essential for all plant species but can be beneficial for some groups of plants. The nutritional deficiency of these essential and beneficial mineral elements is one of the critical limiting factors impairing plant growth and causing severe crop yield loss. In this Special Issue, the responses of plants to various nutritional deficiencies of these essential and beneficial elements exploited by transcriptomic and proteomic techniques are within the scope of this issue and welcome.



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Special Issue



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Message from the Editor-in-Chief

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