



agronomy



Special Issue Reprint

The Role of Mineral Elements in the Crop Growth and Production

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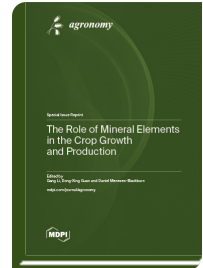
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With the ever-increasing global population, the challenge of sustainably meeting the escalating demand for food is more critical than ever. This pressing issue necessitates the optimization of plant mineral nutrition, which is pivotal for enhancing agricultural productivity, improving resource efficiency, and fostering environmental stewardship. In this Reprint, we bring together key insights from a Special Issue of *Agronomy*, underscoring the crucial role that mineral elements play in crop growth and production. The collection emphasizes innovative management strategies aimed at harmonizing the supply of mineral elements with crop requirements. The cornerstone of sustainable agriculture rests on three pillars: enhancing nutrient acquisition, tailoring nutrient application to specific needs, and adopting an integrated plant-soil perspective. Such strategies are indispensable for capitalizing on mineral nutrition to advance sustainable agricultural practices, thereby ensuring food security and promoting environmental sustainability. The individual papers in this Reprint offer reports on the latest research advancements or comprehensive reviews of existing knowledge. Drawing from a diverse range of disciplines, these articles together aim to deepen our understanding of the importance of mineral elements in crop growth and production.



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