



plants



Special Issue Reprint

Improving Fertilizer Use Efficiency—Methods and Strategies for the Future

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Edited by
Przemysław Bartóg
Jim Moir
Lukáš Hlisenkovský
Xinhua He



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The term fertilizer use efficiency (FUE) is not new. However, in recent years, improving the FUE has become particularly significant. This is due to growing demographic pressure, limited natural resources, climate change, and challenges related to environmental protection. This Special Issue of *Plants* contains papers that describe the current status of the knowledge and outlook of FUE improvement. The two review articles included provide an opportunity to become acquainted with the factors influencing FUE and contemporary trends in the development of fertilization strategies and technologies aimed at maximizing the value of this indicator. Of note, the concept of effective fertilization is presented and defined as the soil fertility clock (SFC). The 19 original articles included in this reprint present the results of research on the following: optimal N dose determination, balanced N fertilization, nitrogen use efficiency (NUE), foliar fertilization, improving the effectiveness of phosphorus use, and the possibility of improving FUE through the application of innovative fertilizers. Thanks to all the articles, this Special Issue enriches our knowledge in terms of the assessment methods of FUE in plant production. Moreover, it indicates new possibilities, perspectives, and directions for the development of scientific research within this field in the coming future.



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