



Innovative Controlled Release Fertilizer Technologies in Agriculture

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Message from the Guest Editor

The excessive application of fertilizers has resulted in lower fertilizer use efficiency (FUE) and negative environmental impacts. Controlled release fertilizers (CRFs) provide a solution to this, as nutrients can be released in a timely and gradual manner, attempting to match the specific nutrient demands needed during plant growth. It is indicated that the application of CRFs could increase or maintain the grain yields of crops, and improve the FUE while reducing negative impacts on the environment.

This Special Issue covers the following scientific issues:

1. The innovation of CRF technologies, such as the innovation of controlled-release coating materials, the production processes of CRFs, and so on;
2. Characteristics and types of controlled release fertilizers;
3. Concept, reality, and mechanism of controlled release fertilizer;
4. The effects of innovated CRFs on grain yields, nutrient use efficiency of different crops, and nutrient balance in the soil-plant-environment system;
5. Prospects and potential of controlled release fertilizers in the agricultural industry.





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Message from the Editor-in-Chief

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