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Optimizing Grain Yield and Water Use Efficiency in Maize Production

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Message from the Guest Editors

Water shortage is a main factor limiting maize growth and grain yield in arid and semi-arid agricultural areas. Therefore, improving maize yield and water use efficiency has become a difficult and hot issue in current research. Maize grain yield and water use efficiency have been affected by the interaction of genotype, environment, and cultivation measures. Exploiting the drought-tolerant gene to breed new varieties, increasing plant density to improve high grain yield, covering the ground to reduce soil moisture evaporation, and optimizing the irrigation schedule and irrigation method are effective ways to obtain high grain yield and water use efficiency. Revealing the water requirement of maize through molecular, physiological, and phenotypic aspects, and further adopting agronomic and engineering water-saving methods to optimize yield and water use efficiency is the development direction of maize production in arid and semi-arid agricultural areas in the future.

This Special Issue will publish recent research that describes the state of the art in research and development on solutions in maize production systems in arid and semi-arid agricultural areas.

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Message from the Editor-in-Chief

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