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Potato Physiology, Genetics and Breeding

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Message from the Guest Editor

Potato is the leading vegetable crop in the world, and produces more food per unit of production area than any cereal crop. It has been recommended by the Food and Agriculture Organization of the United Nations as a food security crop for the future; however, the genetic complexity of commercial potato cultivars represents a problem for breeders in selecting genotypes with multiple desirable traits, such as high yield potential, resistance to pathogens, and abiotic stress. Additionally, the genetic base for biotic and abiotic stress tolerance in cultivated potato is narrow. Advances in the understanding of potato physiology, genetics, and the omics approach can greatly help conventional and molecular breeding create more productive and stress-tolerant genotypes. In addition, desirable traits can be found in landraces and wild relatives of potatoes, and significant effort has been made to identify and utilize genes/alleles from this source. This Special Issue aims to provide an overview of current research and knowledge regarding potato physiology, genetics, genomics, and achievements in conventional and molecular breeding in the creation of new genotypes.



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Message from the Editor-in-Chief

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