Special Issue

Genome Editing of Polyploid Crops

Message from the Guest Editors

Population growth together with changing climate are driving the need for rapid crop improvement. To assist conventional breeding with this monumental challenge, technological innovation is required. Induced mutagenesis has helped greatly over the past years, but the technology is messy and time consuming. Gene editing, however, is one such technology that offers great potential for rapid crop improvement because of its precision and ease. A challenge for many crops is their polyploidy nature. Function redundancy because of multiple gene copies can mask genetic variation. With gene editing, however, we now have the capability of manipulating every gene in the genome, including those that are multi-copy and redundant. This special issue of Agronomy seeks to highlight the potential value of gene editing in polyploidy crops. We welcome contributions that will address the use of gene editing in polyploidy crops. Topics of interest include, but are not limited to 1) increase genetic variation, 2) remove deleterious or unwanted genes, 3) increase recombination, 4) induce genome fractionation, 5) facilitate gene introduction from wild relatives, 6) produce agronomically important traits.

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