





Special Issue Reprint

Advances in Crop Molecular Breeding and Genetics

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Due to the booming population, deteriorating environments, and degrading farmland, it is estimated that crop yields must double by 2050 to ensure food security all over the world. To ensure the achievement of this goal, crop breeders must take full advantage of modern molecular biology technologies to accelerate breeding and genetic improvement. Over recent decades, tremendous efforts have been focused on plant genomics and genetics, having greatly accelerated the process of crop breeding. However, crop yields have been stabilized in recent years. Therefore, it is absolutely imperative to improve the understanding of the molecular basis underlying crop yield, grain quality, nutrient utilization, and stress adaptions for higher crop yields. This Special Issue of *Agronomy* focus on the latest fundamental discoveries in the field of crop genetics in regulating important plant development processes or agronomic traits, germplasm resources with elite traits, adaptive practices to climate change for high crop yields, and the potential utilization of biotechnologies in crop genetic improvement.





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