





Special Issue Reprint

# Forest-Tree Gene Regulation in Response to Abiotic and Biotic Stress

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The forest ecosystem is the largest terrestrial ecosystem on earth. It not only has the highest biological productivity and the strongest ecological effect, but can also maintain carbon and oxygen balance and control temperature rise. With the rapid development of the economy, climate change has become the largest challenge to the continuation of forest ecosystem. With constantly changing climate, environmental conditions including CO2 concentration, temperature, intensity of rainfall and the probability of extreme weathers are all affected. In particular, extreme heat, extreme drought and intense fall will become more frequent and widespread.

Climate change has a great impact on all ecosystems, especially forest ecosystems. As the largest carbon pool on the earth, these area play a very important role in mitigating global climate change. It is necessary to understand what changes have taken place in the growth and development of trees under climate change, the changes that have taken place in the regulation mechanism of trees when multiple stresses occur at the same time, and to determine the regulation mechanism of trees under new stresses?

This book presents relevant results from scientific research in the fields of forest tree gene regulation in response to abiotic and biotic stresses that can contribute to the understanding of forest response mechanisms to different environmental signals and provide a new insight for tolerant tree improvement.



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