Plant Biology, Sustainability, and Climate Change

Series Editor: Azamal Husen and Muhammad Iqbal

NON-CODING RNA IN PLANTS

Modulation and Stress Responses

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Understanding the foundation of long noncoding RNA in plants

Non-coding RNA in Plants: Modulation and Stress Responses presents the basics of long noncoding RNA, its importance, and its potential in addressing abiotic and biotic stresses. Centralizing key information, including bioinformatic tools and databases, it provides valuable insights for leveraging further research.

While various coding has been explored within animal science, plant exposition has been minimal. Describing the miRNA and small RNA and their role in plant development, this book explains the importance of noncoding RNA in plants, including its significance in virus resistance, its transposable elements, effector trigger immunity, and fungal and bacterial resistance in plants.

A volume in the *Plant Biology, Sustainability and Climate Change* series, ***Non-coding RNA in Plants: Modulation and Stress Responses*** presents the state of the science from its historical foundation to its application throughout the lifecycle and production of agricultural and nonagricultural plants.

This book is designed to inspire additional research and developments toward improved plant resiliency and production.

Key Features

- Presents foundational information for understanding the importance of noncoding RNA in plants
- Summarizes and illustrates identification and diversity analysis approaches toward noncoding RNA as regulations
- Explores how noncoding RNAs may play a role in the regulation of stress responses by highlighting their biogenesis and mechanisms of action

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