A comprehensive overview of the role played by GABA as a signaling molecule in plants

In *GABA in Plants: Biosynthesis, Plant Development, and Food Security*, the editors deliver an expertly balanced discussion of the role played by GABA as a signaling molecule in plants, plant development, stress acclimation, as well as its potential impact on crop productivity under changing environmental conditions.

From explorations of the discovery of GABA in plants to presentations of GABA biosynthesis pathways, GABA crosstalk with other metabolites, and GABA's role in programmed cell death in plants, this book is an essential treatment of a four-carbon signaling molecule that may yet prove pivotal in sustaining crop production in the face of climate change.

Readers will also find:

- A thorough introduction to GABA and its involvement in nodulation in and wounding stress in plants
- Comprehensive explorations of plant stress responses and tolerance mechanisms
- Practical discussions of GABA priming induced modulations in the redox homeostasis of plants under osmotic stress
- Complete treatments of GABA and heat, oxidative, cold, bacterial, mediated salt, and chilling stressors

Perfect for students and scientists working in plant biology and physiology, crop protection, food security, nutrition, and biotechnology, *GABA in Plants* will also benefit professionals working in the agricultural, food, and pharmaceutical industries.

Dr. Samiksha Singh, Assistant Professor in the Department of Botany, S.N. Sen B.V. Post Graduate College, Chhatrapati Shahu Ji Maharaj University, Kanpur, India. The Stanford University, USA, has named Dr. Singh amongst the top 2% of the world's most highly cited researchers for 2022 and 2023.

Dr. Durgesh Kumar Tripathi, Associate Professor and Joint Coordinator (Research and Development) at Amity Institute of Organic Agriculture, Amity University Uttar Pradesh, Noida, India. Dr. Tripathi has worked extensively on heavy metals and toxic nanoparticles detoxification and has elaborated tolerance mechanisms in plants like rice, wheat, maize, tomato and brassica which could help in improving crop productivity benefitting for the society.

Dr. Vijay Pratap Singh, Assistant Professor (Level 12) in the Department of Botany, C.M.P. Degree College, University of Allahabad, India. Clarivate Analytics has named Dr. Singh among the top 1% of the world's most highly cited researchers for 2021–2023. Moreover, the Stanford University has also named Dr. Singh amongst the top 2% of the world's most highly cited researchers for 2019–2023.

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