



## Jasmonates and Salicylates Signaling in Plants [

Aftab, Tariq.,  
editor.

<https://orcid.org/0000-0002-5927-719X>.

edt.

<http://id.loc.gov/vocabulary/relators/edt>

Yusuf, Mohammad.,

editor.

<https://orcid.org/0000-0002-2716-4916>.

edt.

<http://id.loc.gov/vocabulary/relators/edt>

Springer International Publishing :

Imprint: Springer,

2021.

Monografia

Demand for agricultural crops and nutritional requirement continues to escalate in response to increasing population. Also, climate change exerts adverse effects on agriculture crop productivity. Plant researchers have, therefore, focused to identify the scientific approaches that minimize the negative impacts of climate change on agricultural crops. Thus, it is the need of the hour to expedite the process for improving stress tolerance mechanisms in agricultural crops against various environmental factors, in order to fulfil the world's food demand. Among the various applied approaches, the application of phytohormones has gained significant attention in inducing stress tolerance mechanisms. Jasmonates are phytohormones with ubiquitous distribution among plants and generally considered to modulate many physiological events in higher plants such as defence responses, flowering and senescence. Also, jasmonates mediate plant responses to many biotic and abiotic stresses by triggering a transcriptional reprogramming that allows cells to cope with pathogens and stresses. Likewise, salicylates are important signal molecules for modulating plant responses to environmental stresses. Salicylic acid influences a range of diverse processes in plants, including seed germination, stomatal closure, ion uptake and transport, membrane permeability and photosynthetic and growth rate. Understanding the significant roles of these phytohormones in plant biology and from agriculture point of view, the current subject has recently attracted the attention of scientists from across the globe. Therefore, we bring forth a comprehensive book 'Jasmonates and Salicylates Signalling in Plants' highlighting the various prospects involved in the current scenario. The book comprises chapters from diverse areas dealing with biotechnology, molecular biology, proteomics, genomics, metabolomics, etc. We are hopeful that this comprehensive book furnishes the requisite of all those who are working or have interest in this topic.

**Título:** Jasmonates and Salicylates Signaling in Plants [electronic resource] edited by Tariq Aftab, Mohammad Yusuf.

**Edición:** 1st ed. 2021

**Editorial:** Cham Springer International Publishing Imprint: Springer 2021.

**Descripción física:** XIII, 323 p. 39 illus., 32 illus. in color. online resource.

**Mención de serie:** Signaling and Communication in Plants 1867-9048

**Documento fuente:** Springer Nature eBook

**Contenido:** Jasmonates and Salicylates: Mechanisms, Transport and Signalling during Abiotic Stress in Plants -- Salicylic acid and jasmonic acid in generating salt stress tolerant plants -- Role of Jasmonic and Salicylic acid signaling in plants under UV-B stress -- Plant Responses to Exogenous Salicylic and Jasmonic Acids under Drought Stress -- Role of jasmonic acid and salicylic acid signaling in secondary metabolite production -- Role of jasmonates and salicylates in plant allelopathy -- Jasmonate: A versatile messenger in plants -- The crucial role of jasmonates in enhancing heavy metals tolerance in plants -- Jasmonates: The Fine-Tuning Bio-Regulators and their Crosstalk with Plant Reproductive Biology -- Role of Jasmonates in pathogenesis and crosstalk of Jasmonates with other hormones -- Methyl Jasmonate and its Application for Improving Postharvest Quality of Fruits -- Salicylic acid signalling under stress conditions in plants -- Function of Mediator in regulating salicylic acid mediated signaling and responses in plants -- The Hidden Pathways Affecting Salicylic Acid Signaling in Plants -- Salicylic Acid (SA): Its interaction with different molecules in the stress tolerance signaling pathways.

**ISBN:** 9783030758059 978-3-030-75805-9

**Materia:** Plant science Botany Plant biochemistry Plant physiology Plant genetics Ecology . Agriculture Plant Sciences Plant Biochemistry Plant Physiology Plant Genetics and Genomics Ecology Agriculture

**Autores:** Aftab, Tariq., editor. <https://orcid.org/0000-0002-5927-719X>. ed. <http://id.loc.gov/vocabulary/relators/edt> Yusuf, Mohammad., editor. <https://orcid.org/0000-0002-2716-4916>. ed. <http://id.loc.gov/vocabulary/relators/edt>

**Entidades:** SpringerLink (Online service)

**Enlace a formato físico adicional:** Printed edition 9783030758042 Printed edition 9783030758066 Printed edition 9783030758073

**Punto acceso adicional serie-Título:** Signaling and Communication in Plants 1867-9048.

---

## Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- [informa@baratz.es](mailto:informa@baratz.es)