Halophytes and Climate Change

Adaptive Mechanisms and Potential Uses

Edited by **Mirza Hasanuzzaman, Sergey Shabala** and **Masayuki Fujita**

Halophytes are plants that are not only able to survive and complete their life cycle in highly saline environments, but can also benefit from such habitats. This is an important characteristic given the increasing levels of salinization in many regions of the world. Rising sea levels due to climate change mean that significant amounts of salt are deposited into coastal areas and the extent of drought events increases, prompting the need for more intensive use of low-quality water for irrigation. This book reviews current knowledge and recent developments in the fields of halophyte biology and ecology, and examines their potential uses. It explores the adaptive mechanisms and special features of halophytes that allow them to grow in extreme environments; and considers their role as a source of food, fuel, livestock feed, fibre, essential oils and medicines.

This book covers:

- Special morphological, anatomical and physiological features of halophytes.
- Ion accumulation patterns and homeostasis in halophytes.
- Potential uses of halophytes in the remediation of saline soil.
- Growth, physiological responses and tolerance.

Written by a team of international authors and presented in colour, this book is an essential resource for researchers in the fields of plant physiology, ecology, soil science, environmental science, botany and agriculture.

ISBN: 978-1786394330

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