# Contents

Current Trends and Emerging Challenges in Sustainable Management of Salt-Affected Soils: A Critical Appraisal .......................... 1  
Dinesh Kumar Sharma and Anshuman Singh

Diagnostic Properties and Constraints of Salt-Affected Soils............... 41  
Sanjay Arora

Crops and Cropping Sequences for Harnessing Productivity Potential of Sodic Soils.................................................................................... 53  
Y.P. Singh

Bio-amelioration of Salt-Affected Soils Through Halophyte Plant Species .................................................................................. 71  
Sanjay Arora and G. Gururaja Rao

Microbial Approach for Bioremediation of Saline and Sodic Soils............. 87  
Sanjay Arora and Meghna Vanza

Plant Growth-Promoting Bacteria: An Emerging Tool for Sustainable Crop Production Under Salt Stress ........................................... 101  
Shiv Ram Singh, Deeksha Joshi, Nidhi Tripathi, Pushpa Singh, and Tapendra Kumar Srivastava

Arbuscular Mycorrhizal Fungi (AMF) for Sustainable Soil and Plant Health in Salt-Affected Soils.............................................................. 133  

Ecology of Saline Soil Microorganisms......................................................... 157  
Ratna Trivedi

Multifunctional Agroforestry Systems for Bio-amelioration of Salt-Affected Soils.................................................................................. 173  
Y.P. Singh
Use of Amendments in Ameliorating Soil and Water Sodicity ................... 195
O.P. Choudhary

Phytoremediation of Metal- and Salt-Affected Soils .............................. 211
T.J. Purakayastha, Asit Mandal, and Savita Kumari

Bioremediation of Heavy Metals by Microbes .................................. 233
Madhu Choudhary, Raman Kumar, Ashim Datta, Vibha Nehra, and Neelam Garg

Reclamation of Sodic Soils in India: An Economic Impact
Assessment ............................................................................................ 257
K. Thimmappa, Y.P. Singh, and R. Raju

Bioremediation of Salt-Affected Soils: Challenges and Opportunities ...... 275
Sanjay Arora, Atul K. Singh, and Divya Sahni

Index ....................................................................................................... 303
Bioresidiation of Salt Affected Soils: An Indian Perspective
Arora, S.; Singh, A.K.; Singh, Y.P. (Eds.)
2017, X, 313 p. 31 illus., 22 illus. in color., Hardcover
ISBN: 978-3-319-48256-9