

1. Record Nr.	UNINA9910797822303321
Titolo	Plant microbe interactions // Harsh Bais, Janine Sherrier, volume editors
Pubbl/distr/stampa	London, England : , : Academic Press, , 2015 ©2015
ISBN	0-12-420116-4 0-12-420174-1
Edizione	[First edition.]
Descrizione fisica	1 online resource (382 p.)
Collana	Advances in botanical research, , 0065-2296 ; ; Volume 75
Disciplina	579.178
Soggetti	Plant-microbe relationships Life sciences - Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Front Cover; ADVANCES IN BOTANICAL RESEARCH; Plant Microbe Interactions; Copyright; CONTENTS; CONTRIBUTORS; PREFACE; One - Not Just Sweet Talkers: How Roots Stimulate Their Colonization by Beneficial Bacteria; 1. INTRODUCTION; 2. ATTRACTION; 3. NUTRITION; 4. COLONIZATION; 5. GENERAL EFFECTS; 6. COMPOUNDS FROM THE PLANT THAT AFFECT THE PGP EFFECT OF BACTERIA; 7. CONCLUSION AND PERSPECTIVES; REFERENCES; Two - Molecular Patterns of Rhizobacteria Involved in Plant Immunity Elicitation; 1. HOST RESISTANCE ELICITATION AS PART OF RHIZOBACTERIA-MEDIATED BIOCONTROL 2. GLOBAL ASPECT OF MICROBE-INDUCED PLANT IMMUNITY 3. MAMPS FROM BACTERIAL PATHOGENS AND EARLY PHYSIOLOGICAL/SIGNALLING EVENTS ASSOCIATED WITH THEIR PERCEPTION; 3.1 Molecular Patterns and Cognate Receptors; 3.2 Early Physiological Responses and Signalling; 4. ELICITORS OF PLANT IMMUNITY FROM BENEFICIAL BACTERIA; 4.1 Surface-Exposed MAMPs; 4.2 Secreted Compounds; 4.2.1 Exopolysaccharides; 4.2.2 Iron-Regulated Metabolites; 4.2.2.1 Pyoverdines/Pseudobactins; 4.2.2.2 Salicylic Acid (SA) and SA-Derived Siderophores; 4.2.3 Alkyl Chain-Containing Metabolites; 4.2.3.1 Lipopeptides 4.2.3.2 Rhamnolipids 4.2.3.3 N-Acyl-L-Homoserine Lactones; 4.2.3.4

N-Alkylated Benzylamine Derivative; 4.2.4 Elicitors with Antibiotic Function; 4.2.5 Volatiles; 4.2.6 Other Elicitors; 4.3 Multiple Compounds Involved in Plant Defence Elicitation by a Single PGPR Strain; 4.4 Host Perception of PGPR Elicitors; 4.4.1 Recognition at the Plant Cell Surface; 4.4.2 Downstream Early Signalling and Defence-Related Events; 5. CONCLUDING REMARKS; ACKNOWLEDGEMENT; REFERENCES; Three - Root Microbiome Assemblage is Modulated by Plant Host Factors; 1.

#### INTRODUCTION

2. MICROBIOME ASSEMBLAGE IS INFLUENCED BY THE HOST GENOME3. MICROBIOME ASSEMBLAGE IS INFLUENCED BY THE HOST DEVELOPMENTAL STAGE; 4. MICROBIOME ASSEMBLAGE IS INFLUENCED BY THE HOST HEALTH AND FITNESS; 5. MICROBIOME ASSEMBLAGE IS INFLUENCED BY ALTERATION IN PLANT SIGNALLING; 6. IMPLICATIONS AND FUTURE PROSPECTS; REFERENCES; Four - PGPR Interaction: An Ecofriendly Approach Promoting the Sustainable Agriculture System; 1. INTRODUCTION; 2. RHIZOSPHERE, THE HOT SPOT FOR PGPR INTERACTION; 3. COLONIZATION AND COMPETENCE; 4. PGPR ROOTING FOR THE SUSTAINABLE AGRICULTURE; 4.1 PGPR as Biofertilizers 4.1.1 Nitrogen Fixation4.1.2 Phosphorus Solubilization; 4.1.3 Absorption of Iron; 4.1.4 Phytostimulators; 4.1.4.1 Indole-3-Acetic Acid; 4.1.4.2 Gibberellin; 4.1.4.3 Cytokinin; 4.1.4.4 Regulating Plant Ethylene Levels; 4.2 PGPR as Biopesticides; 4.3 PGPR as Bioremediators; 5. COMMERCIALIZATION OF PGPR; 6. CONCLUSION; ACKNOWLEDGEMENTS; REFERENCES; Five - Human Pathogen-Plant Interactions: Concerns for Food Safety; 1. INTRODUCTION: MERGING PLANT SCIENCE AND FOOD SCIENCE TO ADDRESS FOOD SAFETY; 2. HUMAN PATHOGENS ON PLANTS; 3. HUMAN PATHOGEN INTERACTIONS WITH PHYTOBACTERIA AND RHIZOBACTERIA 4. RELATIONSHIPS BETWEEN PLANT STOMATA, CIRCADIAN RHYTHM AND HUMAN PATHOGENS

---