

# Contents

<b>Long-Distance Signaling in Systemic Acquired Resistance . . . . .</b>	<b>1</b>
Jyoti Shah and Ratnesh Chaturvedi	
<b>Salicylic Acid-Induced Local and Long-Distance Signaling Models in Plants . . . . .</b>	<b>23</b>
Tomonori Kawano and François Bouteau	
<b>Long-Distance Signaling via Mobile RNAs . . . . .</b>	<b>53</b>
David J. Hannapel	
<b>Systemic Epigenetic Signaling in Plants . . . . .</b>	<b>71</b>
Andriy Bilichak and Igor Kovalchuk	
<b>Long-Distance Signals Produced by Water-Stressed Roots . . . . .</b>	<b>105</b>
Jason Q.D. Goodger	
<b>Oxygen Deficiency-Induced Root-to-Shoot Communication . . . . .</b>	<b>125</b>
Laura Arru, Silvia Fornaciari, and Stefano Mancuso	
<b>Systemic Signaling in the Maintenance of Phosphate Homeostasis . . . .</b>	<b>149</b>
Aaron P. Smith	
<b>Long-Distance Signaling of Iron Deficiency in Plants . . . . .</b>	<b>167</b>
Yusuke Enomoto and Fumiyuki Goto	
<b>Strigolactones and the Coordinated Development of Shoot and Root . . .</b>	<b>189</b>
Hinanit Koltai and Christine A. Beveridge	
<b>Auxin as Long-Distance Signal Controlling Root Architecture in Response to Nitrogen . . . . .</b>	<b>205</b>
Giel E. van Noorden and Ulrike Mathesius	
<b>Systemic Signalling in Legume Nodulation: Nodule Formation and Its Regulation . . . . .</b>	<b>219</b>
Satomi Hayashi, Peter M. Gresshoff, and Brett J. Ferguson	

<b>Systemic Signaling in Light Acclimation of Leaves . . . . .</b>	<b>231</b>
Grzegorz Konert, Moona Rahikainen, Andrea Trotta, and Saijaliisa Kangasjärvi	
<b>Systemic Photooxidative Stress Signalling . . . . .</b>	<b>251</b>
Melanie Carmody and Barry Pogson	
<b>Macromolecules Trafficking in the Phloem and Interorgan Communication . . . . .</b>	<b>275</b>
Ziv Spiegelman, Guy Golan, and Shmuel Wolf	
<b>Electrical Long-Distance Signaling in Plants . . . . .</b>	<b>291</b>
Matthias R. Zimmermann and Axel Mithöfer	
<b>Intercellular Communication in Plants: Evidence for an EMF-Generated Signal that Evokes Local and Systemic Transcriptional Responses in Tomato . . . . .</b>	<b>309</b>
A. Vian, E. Davies, and P. Bonnet	
<b>Systemic Wound Signaling in Plants . . . . .</b>	<b>323</b>
John P. Delano-Frier, Gregory Pearce, Alisa Huffaker, and Johannes W. Stratmann	
<b>Calcium as a Trigger and Regulator of Systemic Alarms and Signals along the Phloem Pathway . . . . .</b>	<b>363</b>
Aart J.E. van Bel and Jens B. Hafke	
<b>The Role of Volatiles in Plant–Plant Interactions . . . . .</b>	<b>393</b>
Cesar R. Rodriguez-Saona, Mark C. Mescher, and Consuelo M. De Moraes	
<b>Index . . . . .</b>	<b>413</b>

Long-Distance Systemic Signaling and Communication  
in Plants

Baluška, F. (Ed.)

2013, XII, 419 p., Hardcover

ISBN: 978-3-642-36469-3