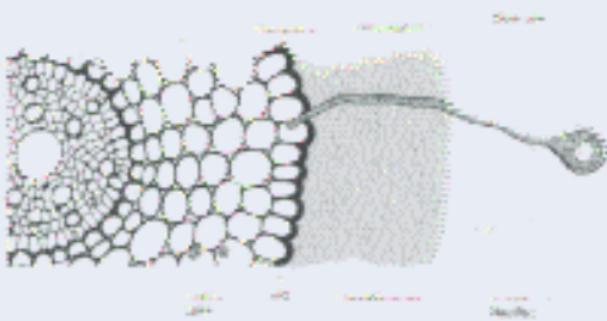


# Biological Control of Crop Diseases



edited by  
**Samuel S. Gnanamanickam**

# Contents

|   |               |     |
|---|---------------|-----|
| <i>Foreword</i>   | R. James Cook | iii |
| <i>Preface</i>  |               | vii |
| <i>Contributors</i>   |               | xi  |
| 1. Principles of Biological Control   |               | 1   |
| <i>Samuel S. Gnanamanickam, Preeti Vasudevan, Munagala S. Reddy, Geneviève Défago, and Joseph W. Kloepper</i> |               |     |
| 2. Biological Control of Rice Diseases  |               | 11  |
| <i>Preeti Vasudevan, S. Kavitha, V. Brindha Priyadarisini, Lavanya Babujee, and Samuel S. Gnanamanickam</i>   |               |     |
| 3. Transgenic Plants for the Management of Plant Diseases: Rice, a Case Study                                 |               | 33  |
| <i>Swapan K. Datta</i>  |               |     |
| 4. Biological Control of Wheat Diseases   |               | 65  |
| <i>Krishnapillai Sivasithamparam</i>  |               |     |
| 5. Biological Control of Cotton Diseases  |               | 87  |
| <i>Kalyan K. Mondal and Jeevan P. Verma</i>   |               |     |
| 6. Biological Control of Tobacco Diseases   |               | 111 |
| <i>Bonnie H. Ownley</i>   |               |     |
| 7. Biological Control of Peanut Diseases  |               | 131 |
| <i>Appa Rao Podile and G. Krishna Kishore</i>   |               |     |

|     |   |     |
|-----|---|-----|
| 8.  | Biological Control of Sugarcane Diseases<br><i>D. Mohanraj, P. Padmanaban, and R. Viswanathan</i>   | 161 |
| 9.  | Biological Control of Potato Pathogens<br><i>Barry Jacobsen</i>   | 179 |
| 10. | Biological Control of Soybean Diseases<br><i>Terry R. Anderson</i>  | 191 |
| 11. | Biological Control of Tomato Diseases<br><i>Nancy Kokalis-Burelle</i>   | 225 |
| 12. | Biological Disease Control in the Production of Apple<br><i>Mark Mazzola</i>  | 263 |
| 13. | Biological Control of Postharvest Diseases of Citrus Fruits<br><i>Ahmed El Ghaouth, Charles L. Wilson, Michael Wisniewski, Samir Droby, Joseph L. Smilanick, and Lise Korsten</i> | 289 |
| 14. | Biological Control of Turfgrass Diseases<br><i>W. Uddin and G. Viji</i>   | 313 |
| 15. | Implementation of Biological Control of Plant Diseases in Integrated Pest-Management Systems<br><i>X. B. Yang and Luis del Rio</i>  | 339 |
| 16. | Biocontrol Agents in Signaling Resistance<br><i>L. C. van Loon and Corné M. J. Pieterse</i>   | 355 |
| 17. | Comprehensive Testing of Biocontrol Agents<br><i>Suseelendra Desai, Munagala S. Reddy, and Joseph W. Kloepper</i>   | 387 |
| 18. | Formulation of Biological Control Agents for Pest and Disease Management<br><i>Prem Warrior, Krishnamurthy Konduru, and Preeti Vasudevan</i>                                      | 421 |
| 19. | Future Trends in Biocontrol<br><i>Jo Handelsman</i>   | 443 |