

CONTENTS

1. Phytochemical Diversity: Adaptation or Random Variation?	1
May R. Berenbaum and Arthur R. Zangerl	
2. Diversity, Redundancy, and Multiplicity in Chemical Defense Systems of Aspen	25
Richard L. Lindroth and Shaw-Yhi Hwang	
3. Diversity and Dynamics of Crucifer Defenses against Adults and Larvae of Cabbage Butterflies	57
J. A. A. Renwick	
4. Defensive Chemicals in Grass-Fungal Endophyte Associations	81
Malcolm R. Siegel and Lowell P. Bush	
5. Multiple Defenses and Signals in Plant Defense against Pathogens and Herbivores	121
Ray Hammerschmidt and Jack C. Schultz	
6. Phytochemistry of the Meliaceae: So Many Terpenoids, So Few Insecticides	155
Murray B. Isman, Hideyuki Matsuura, Shawna MacKinnon, Tony Durst, G. H. Neil Towers, and John T. Arnason	
7. The Role of Mixtures and Variation in the Production of Terpenoids in Conifer-Insect-Pathogen Interactions	179
Rex G. Cates	
8. Relationships between the Defense Systems of Plants and Insects: The Cyanogenic System of the Moth <i>Zygaena trifolii</i>	217
Adolf Nahrstedt	

9. Polyphenol Oxidase as a Component of the Inducible Defense Response in Tomato against Herbivores	231
C. Peter Constabel, Daniel R. Bergey, and Clarence A. Ryan	
10. The Role of Benzoic Acid Derivatives in Systemic Acquired Resistance	253
Scott Uknes, Shericca Morris, Bernard Vernooij, and John Ryals	
11. Natural Products, Complexity, and Evolution	265
Bruce B. Jarvis and J. David Miller	
12. An Explanation of Secondary Product "Redundancy"	295
Richard D. Firn and Clive G. Jones	
Index	313