

Contents

Acknowledgments	xiii
Foreword	xv
Introduction	1
Dave’s Mycelial Mayhem Journey.	4
Kristin’s Mycelial Mayhem Journey.	5
Section I: Mycelia	
1. Why Mushrooms?	9
Why Not Mushrooms?	9
Mushrooms Are Part of Our Fabric	11
Mushrooms for the Future	13
On the Mushroom Path	14
2. Mushroom Basics	17
Fungi: A Kingdom of Its Own	17
Mushroom Structure and Life Cycle	19
Relevance of the Life Cycle to Cultivation and Harvest.	20
Facilitating Growth and Reproduction.	25
Fungi in Our Ecosystems	26
Mushroom Life Cycle and Ecology as Teacher	27
Section II: The Stem	
3. Growing Mushrooms.	31
The Assessment	31
Outdoor Cultivation.	34
Wine Caps (<i>Stropharia rugoso annulata</i>).	36

Oysters	40
Pink Oyster (<i>Pleurotus djamor</i>)	59
Italian Oyster (<i>Pleurotus pulmonarius</i>)	60
Golden Oyster (<i>Pleurotus cornucopiae</i>)	61
King Oyster (<i>Pleurotus eryngii</i>)	61
Nameko (<i>Pholiota nameko</i>)	62
Pioppino or Black Poplar (<i>Agrocybe aegerita</i>)	62
Lion's Mane or Hericium (<i>Hericium erinaceus</i>)	63
Reishi (<i>Ganoderma lucidum</i>)	64
Maitake	66
Black, Yellow, and Grey Morels (<i>Morchella angusticeps</i> , <i>M. esculenta</i> and <i>M. deliciosa</i>)	67
Shiitake (<i>Lentinula edodes</i>)	68
Indoor Cultivation: The Mayhem Within	79
4. Wild Collecting and Purveying	87
Tenets to Follow When <i>Collecting</i> Wild Mushrooms	91
Tenets to Follow When <i>Purveying</i> Wild-collected Mushrooms	92
5. Companion Planting and Other Sustainable Methods	99
Systems Thinking: It's Not Just About the Mushrooms	99
What's the Difference? Economics vs. Ecology	100
What's the Difference? Sustainability vs. Resilience	100
Biomimicry	101
Permaculture Principles	102
Putting It All Together: Resilient Design	104
Applications for Mushroom Growing	106
Composting	114
Recycling Spent Growing Medium	114
Materials and Energy Reduction	117
Business Resilience	117
Sharing Your Bounty	118

Section III: The Fruit of Your Labor

6. Umami of Edible Mushrooms	121
What Is Umami?	121
From Harvest to Feast: Handling Mushrooms for the Best Umami	122
Complementary Food Pairings for Umami and Health	126
The Taste, Texture and Presentation of Specific Mushrooms	126
Culinary Supplements	128
Recipes	129
7. Nutritional Benefits of Mushrooms	141
Nutrition and Medicine	143
Nutritional Content of Mushrooms	145
The Known Benefits	146
The <i>Super Seven</i> Medicinal Mushrooms	148
Mushrooms' Major Health Improvement Functions	149
How to Maximize Nutritional Content	154
Cautions	156
8. Niche Business or Supplemental Income	159
Mushrooms As a Business?	159
Knowing How to Grow	161
Formulating Your Idea	161
Evaluating Your Market: Conducting a Market Analysis	164
Getting Started	167
9. Marketing Mushrooms	187
Challenges and Opportunities	190
Developing Your Story	192
Traditional Advertising	196
Target Marketing and Understanding Your Unique Market	198
Crafting Your Online Presence	199

Collaboration	204
Face Time	208
Developing Your Unique Marketing Strategy	222
Evaluating Your Efforts	224
Looking Forward and Anticipating Change	225
Section IV: Spreading the Spores	
10. Conclusion: Spread Your Spores	229
Appendix: Marketing and Communications Materials	233
North American Resources by Subject.	251
References	257
Index	261
About the Authors	269