

Contents

1. Introduction	3
Why Do We Eat?	3
What Is Food Quality?	5
Do Gardeners Produce High Quality Food?	6
Gardeners Affect Quality	7
The History of Food Science	9
2. Understanding Nutrition	11
Human Nutrients vs Plant Nutrients	12
Nutrients vs Calories	13
Nutrients in Food	14
Factors Affecting Nutrients	29
Nutrition Myths	31
3. Food Safety—Chemicals	33
Chemical Toxicity	35
Pesticides	38
Heavy Metals	41
Food Safe Plastics	45
Safe Material for Raised Beds	48
Microplastics	51
Growing Food Near Toxic Plants	51
Allelopathy	52
GMO Food	53
Allergies and Sensitivities	56
4. Food Safety—Biological	59
The Microbes Among Us	60
What Is a Foodborne Illness	61
How Microbes Grow	63
Detecting a Problem	68

Buying Food	70
Food Safety Myths	70
Final Thoughts	74
5. Nutrient Density	75
Measuring Nutrient Density	76
Factors Affecting Nutrient Density	80
What Does Science Know About Growing Nutrient-Dense Food?	83
Factors Affecting Nutrients	86
6. The Flavor of Food	89
Nutrition and Flavor	94
Why Does Grocery Store Produce Taste Bland?	96
Sweetness vs Acidity	97
Factors Affecting Flavor	98
7. Growing Great Food	105
Selecting the Right Cultivar	106
Importance of Days to Maturity	107
Heirlooms vs Hybrids	108
Is Organic Food Better?	114
Fresh Is Best	118
8. Handling and Storing Food	125
Washing Hands and Produce	125
Food Storage	130
9. Preserving Food	135
Preserving Techniques	135
Methods for Preserving Food	137
10. Cooking Food	159
Why Do We Cook Food?	159
How Does Cooking Affect Flavor?	161
How Does Cooking Affect Nutrition?	164
Cooking Creates Undesirable Compounds	165
Food That Needs Cooking	169
Cooking Myths	172
Cooking Methods	172

11. Growing and Serving Quality Food	181
Beans, Green (Snap Beans)	181
Cucumbers	182
Garlic	183
Lettuce	184
Onion	185
Peas	186
Radish	186
Raspberries	187
Strawberries	188
Tomato	189
Zucchini	190
Notes	191
Index	197
About the Author	205
Connect with Robert Pavlis.	207
About New Society Publishers	214