Contents

Contributors xiii
Preface xvii
Acknowledgment xix

Part I Highlighting Key Issues 1
Chapter 1 Emerging Global Food System Risks and Potential Solutions 3
Shaun Kennedy
Overview 3
Supply Chain Complexity 4
Increasing Role of Imports 6
Unusual Sources for Imports 7
Other Emerging Food Safety Risks 10
Economically Motivated Adulteration 11
Other Emerging Intentional Threats 13
Potential Solutions 15
Conclusions 19
References 19

Chapter 2 A Cooperative Federal–State Approach for Monitoring Imported Foods: Reviewing the New York State Model 21
Joe Corby
Introduction 21
State and Local Government Strengths 23
## Contents

The New York Model for a Cooperative Federal–State Approach for Monitoring the Safety of Imported Food 25

Examples of Violative Imported Food Products Found in the Pilot Cooperative Project 35

Discussion 41

Conclusions 42

References 42

### Chapter 3

The Impact of the Chinese Development Model on Food Safety 45

*Wenran Jiang*

Introduction 45

China’s Explosive Economic Growth and its Impact 46

China as a Growing Food Superpower 51

China’s Food Safety Regimes 53

China’s Food Safety Challenges 57

Conclusions 61

Notes 62

References 63

### Chapter 4

The Role of Public–Private Partnerships on the Access of Smallholder Producers of Mexican Cantaloupe to Fresh Produce Export Markets 65

*Belem Avendano, Clare Narrod, and Marites Tiongco*

Foodborne Outbreaks and the Increasing Demand for Food Safety in Fruit and Vegetables 66

Production Trends of the Cantaloupe Industry in Mexico 71

Responses to Food Safety Problems Associated with Cantaloupe Outbreaks 74

Major Barriers to Market Access for Small Mexican Producers in the Cantaloupe Supply Chain 76

The Role of Private–Public Partnerships in Facilitating Smallholders to Overcome Barriers to Export Market Entry 78

Summary and Conclusions 81
Contents

Notes 82
References 83

Part II  Legal and Regulatory Issues/Structures in the United States and Abroad 87

Chapter 5  Improving US Regulation of Imported Foods 89
Neal Fortin

Introduction 89
The Major Federal Agencies 91
The FDA Import Process 92
Prior Notice of Import 93
USDA’s Import System 98
Other Import Controls 100
Country-of-origin Labeling 103
Challenges Facing Import Regulation 104
International Standards – Codex 106
Conclusions 106
References 108

Chapter 6  EU Food Safety Regulation and Trust-enhancing Principles 111
Ellen Vos

Introduction 111
Food Regulation: Between Market and Safety 112
The EU’s Failings in Ensuring Food Safety 114
The EU’s New Regime on Food Safety Regulation 115
Restoring Trust in EU Decision-making on Foods 118
Concluding Remarks 125
Acknowledgment 126
Notes 126
References 129

Chapter 7  Experience of Food Safety Authorities in Europe and the Rapid Alert System 133
Roger Wood

Introduction 133
The EU Approach to Legislation in the Food Sector 134
## Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Food Crises</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>Risk Assessment and Risk Management and the EFSA</td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>The Rapid Alert System for Food and Feed</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>Notes</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>Chapter 8</td>
<td>The Development of and Challenges Facing Food Safety Law in the People’s Republic of China</td>
</tr>
<tr>
<td></td>
<td>Yuanyuan Shen</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td>China’s Food Safeguard System Today</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>The Challenges China Faces in Food Safeguard Improvement</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>Conclusions</td>
<td>186</td>
</tr>
<tr>
<td></td>
<td>Acknowledgments</td>
<td>187</td>
</tr>
<tr>
<td></td>
<td>Notes</td>
<td>187</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>192</td>
</tr>
<tr>
<td></td>
<td>Chapter 9</td>
<td>Defining Food Fraud and the Chemistry of the Crime</td>
</tr>
<tr>
<td></td>
<td>John Spink</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Food Fraud</td>
<td>196</td>
</tr>
<tr>
<td></td>
<td>Diversion, Parallel Trade, and Gray Market</td>
<td>203</td>
</tr>
<tr>
<td></td>
<td>Criminology and the Chemistry of the Crime</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>Improving Import Food Safety</td>
<td>208</td>
</tr>
<tr>
<td></td>
<td>Conclusions</td>
<td>213</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>214</td>
</tr>
<tr>
<td></td>
<td>Part III</td>
<td>Potential Strategies to Improve Import Safety</td>
</tr>
<tr>
<td></td>
<td>Chapter 10</td>
<td>Tracking and Managing the Next Crisis</td>
</tr>
<tr>
<td></td>
<td>Henry Chin, Nancy Rachman, and Maia Jack</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>Tracking the Next Crisis</td>
<td>220</td>
</tr>
</tbody>
</table>
Contents

Issue Management Tools 227
Conclusion 233
Notes 234

Chapter 11  Food Product Tracing 235
Jennifer McEntire

Introduction 235
Current US Recordkeeping Requirements 236
Global Recordkeeping Guidance and Practices 237
Commercial Product Tracing Standards 238
Food Industry Factors Affecting Traceability 241
Recommendations for Product Tracing 244
Commingling – A Special Case for
Product Tracing 246
Traceability Versus Recall Ability 247
Product Tracing as a Food Safety Tool
for Imports 247
References 248

Chapter 12  Improving the Safety of Imported Foods with
Intelligent Systems: The Case of United
States–Mexico Fresh Produce Supply Chain 251
William Nganje, Na Hu, Timothy Richards
and Albert Kagan

Introduction 252
Assessment of Threat and Vulnerability 259
Data and Procedure 261
Optimal Control Procedure 263
Results and Discussion 265
Notes 269
Appendix 270
References 272

Chapter 13  Testing with Confidence in the Pursuit
of Global Food Safety 275
Ronald L. Johnson and Robert E. Koeritzer

Introduction 275
AOAC® International: Official Methods
of Analysis 279
## Contents

1. Evolution of Method Development and Validation
   AOAC Research Institute 280

2. Initial Step in AOAC Harmonization of Rapid Microbiological Test Kits 284

3. The AOAC Guidelines Under Revision 289

4. References 291

### Chapter 14 Global Food Protection: A New Organization is Needed 293

*William H. Sperber*

- Introduction 293
- Background 294
- Proposal 298
- Conclusion 301
- Note 302
- References 302

### Chapter 15 Summary and Recommendations for the Safety of Imported Foods 303

*Lorna Zach, M. Ellin Doyle, Vicki Bier and Chuck Czuprynski*

- Introduction 305
- Summary of Current Concerns 306
- Recommendations to Improve the Safety of Imported Foods 316
- Concluding Recommendations 321
- Conclusion 328
- Acknowledgments 328
- Notes 329
- References 329

Index 335