

# Table of Contents

<b>Preface .....</b>	<b>xiii</b>
<b>Chapter 1 Sanitation and the Food Industry .....</b>	<b>1</b>
The food industry .....	1
What is sanitation?.....	3
Why sanitation?.....	3
Sanitation laws and regulations and guidelines .....	9
Establishment of sanitary practices.....	13
Summary.....	14
Study questions .....	15
<b>Chapter 2 The Relationship of Biosecurity to Sanitation .....</b>	<b>16</b>
Potential risks of foodborne bioterrorism .....	17
Bioterrorism protection measures .....	17
The role of pest management in biosecurity .....	22
Additional bioterrorism information.....	22
Summary.....	23
Study questions .....	24
<b>Chapter 3 The Relationship of Microorganisms to Sanitation.....</b>	<b>25</b>
How microorganisms relate to food sanitation.....	25
What causes microorganisms to grow .....	30
Effects of microorganisms on spoilage.....	34
Effects of microorganisms on foodborne illness.....	35
Foodborne illnesses .....	36
Microbial destruction.....	53
Microbial growth control .....	55
Microbial load determination .....	55
Diagnostic tests .....	62
Summary.....	67
Study questions .....	67

<b>Chapter 4</b>	<b>The Relationship of Allergens to Sanitation .....</b>	<b>70</b>
	What are allergens? .....	71
	Allergen control .....	71
	Summary.....	75
	Study questions.....	75
<b>Chapter 5</b>	<b>Food Contamination Sources .....</b>	<b>76</b>
	Transfer of contamination .....	77
	Contamination of foods.....	77
	Other contamination sources .....	80
	Protection against contamination .....	81
	Summary.....	82
	Study questions .....	82
<b>Chapter 6</b>	<b>Personal Hygiene and Sanitary Food Handling .....</b>	<b>83</b>
	Personal hygiene.....	83
	Sanitary food handling.....	96
	Summary.....	97
	Study questions .....	98
<b>Chapter 7</b>	<b>The Role of HACCP in Sanitation.....</b>	<b>99</b>
	What is HACCP? .....	99
	HACCP development.....	101
	Interface with GMPs and SSOPs .....	106
	HACCP principles .....	106
	Organization,implementation,and maintenance.....	111
	Summary.....	114
	Study questions .....	114
<b>Chapter 8</b>	<b>Quality Assurance for Sanitation .....</b>	<b>116</b>
	The role of total quality management.....	117
	Quality assurance for effective sanitation .....	117
	Organization for quality assurance .....	119
	Establishment of a quality assurance program.....	125
	Summary.....	139
	Study questions .....	140
<b>Chapter 9</b>	<b>Cleaning Compounds .....</b>	<b>141</b>
	Soil characteristics .....	141
	Effects of surface characteristics on soil deposition .....	143
	Soil attachment characteristics.....	144
	Cleaning compound characteristics.....	146
	Classification of cleaning compounds.....	148
	Cleaning auxiliaries.....	154
	Scouring compounds.....	156
	Cleaning compound selection .....	156

	Handling and storage precautions .....	157
	Summary .....	163
	Study questions .....	163
<b>Chapter 10</b>	<b>Sanitizers .....</b>	<b>165</b>
	Sanitizing methods .....	165
	Summary .....	188
	Study questions .....	188
<b>Chapter 11</b>	<b>Sanitation Equipment.....</b>	<b>190</b>
	Sanitation costs .....	190
	Equipment selection .....	191
	Cleaning equipment .....	193
	Sanitizing equipment .....	210
	Lubrication equipment .....	211
	Summary .....	211
	Study questions .....	212
<b>Chapter 12</b>	<b>Waste Product Handling .....</b>	<b>213</b>
	Strategy for waste disposal .....	214
	Planning the survey .....	214
	Solid waste disposal .....	218
	Liquid waste disposal .....	218
	Summary .....	233
	Study questions .....	233
<b>Chapter 13</b>	<b>Pest Control.....</b>	<b>235</b>
	Insect infestation .....	235
	Cockroaches.....	235
	Insect destruction .....	240
	Rodents .....	245
	Birds.....	249
	Use of pesticides .....	250
	Integrated pest management .....	252
	Summary .....	255
	Study questions .....	255
<b>Chapter 14</b>	<b>Sanitary Design and Construction for Food Processing .....</b>	<b>257</b>
	Site selection.....	257
	Site preparation .....	258
	Building construction considerations .....	258
	Processing and design considerations .....	260
	Pest control design .....	265
	Construction materials .....	266
	Summary .....	266
	Study questions .....	266

<b>Chapter 15</b>	<b>Low-Moisture Food Manufacturing and Storage Sanitation.....</b>	<b>268</b>
	Sanitary construction considerations .....	268
	Receipt and storage of raw materials .....	272
	Cleaning of low-moisture food manufacturing plants .....	280
	Summary .....	281
	Study questions .....	281
<b>Chapter 16</b>	<b>Dairy Processing Plant Sanitation .....</b>	<b>283</b>
	Role of pathogens .....	284
	Sanitary construction considerations .....	286
	Soil characteristics in dairy plants .....	287
	Sanitation principles.....	288
	Cleaning equipment .....	291
	Summary .....	296
	Study questions .....	296
<b>Chapter 17</b>	<b>Meat and Poultry Plant Sanitation .....</b>	<b>298</b>
	Role of sanitation.....	298
	Sanitation principles.....	306
	Cleaning compounds for meat and poultry plants .....	308
	Sanitizers for meat and poultry plants .....	309
	Sanitation practices .....	312
	Sanitation procedures.....	314
	Troubleshooting tips.....	324
	Summary .....	325
	Study questions .....	325
<b>Chapter 18</b>	<b>Seafood Plant Sanitation .....</b>	<b>327</b>
	Sanitary construction considerations .....	327
	Contamination sources.....	329
	Sanitation principles.....	330
	Recovery of by-products .....	334
	Summary .....	334
	Study questions .....	334
<b>Chapter 19</b>	<b>Fruit and Vegetable Processing Plant Sanitation .....</b>	<b>336</b>
	Contamination sources.....	336
	Sanitary construction considerations .....	338
	Cleaning considerations .....	340
	Cleaning of processing plants .....	341
	Cleaners and sanitizers.....	343
	Cleaning procedures.....	344
	Evaluation of sanitation effectiveness .....	346
	Summary .....	348
	Study questions .....	348

<b>Chapter 20</b>	<b>Beverage Plant Sanitation .....</b>	<b>350</b>
	Mycology of beverage manufacture .....	350
	Sanitation principles.....	350
	Nonalcoholic beverage plant sanitation .....	352
	Brewery sanitation.....	355
	Winery sanitation .....	361
	Distillery sanitation .....	367
	Summary .....	369
	Study questions .....	369
<b>Chapter 21</b>	<b>Foodservice Sanitation .....</b>	<b>371</b>
	Sanitary design.....	371
	Contamination reduction .....	374
	Sanitary procedures for food preparation.....	376
	Sanitation principles.....	376
	Foodservice sanitation requirements .....	389
	Summary .....	391
	Study questions .....	391
<b>Chapter 22</b>	<b>Management and Sanitation .....</b>	<b>392</b>
	Management requirements .....	392
	Employee selection .....	394
	Management of a sanitation operation .....	396
	Total quality management.....	400
	Summary .....	401
	Study questions .....	401
<b>Index .....</b>		<b>406</b>



<http://www.springer.com/978-0-387-25025-0>

Principles of Food Sanitation

Marriott, N.; Gravani, R.B.

2006, XIV, 413 p. 47 illus., Hardcover

ISBN: 978-0-387-25025-0