

Contents

Foreword	xiii
Preface	xv
Acknowledgments	xix
1 ENVIRONMENT AND HUMANS	1
The Ecosystem	1
The Environmental Health Field	25
Summary	31
2 FOOD PROTECTION	33
Background and Status	33
Scientific and Technological Background	34
Problems in Food Protection	40
Potential for Intervention	48
Resources	48
Standards, Practices, and Techniques	49
Modes of Surveillance and Evaluation	60
Controls	66
Summary	67
3 FOOD TECHNOLOGY	69
Background and Status	69
Scientific and Technological Background	71
Problems of Food Technology	72
Potential for Intervention	77
Resources	77
Standards, Practices, and Techniques	78
Modes of Surveillance and Evaluation	89
Food Quality Control	94
Summary	94
Research Needs	94
4 INSECT CONTROL	96
Background and Status	96
Scientific, Technological, and General Information	97
Environmental and Health Problems Created by Insects	111
Potential for Intervention	120
Resources	120
Standards, Practices, and Techniques	120
Modes of Surveillance and Evaluation	121

viii Handbook of Environmental Health and Safety

Controls	123
Summary	128
Research Needs	129
5 RODENT CONTROL	130
Background and Status	130
Scientific, Technological, and General Information	132
Rodent Problems and Their Effect on Humans	136
Potential for Intervention	138
Resources	138
Standards, Practices, and Techniques	138
Modes of Surveillance and Evaluation	141
Rodent Control	143
Summary	149
Research Needs	149
6 PESTICIDES	150
Background and Status	150
Scientific, Technological, and General Information	151
Problems Created by Pesticides	160
Potential for Intervention	163
Resources	164
Standards, Practices, and Techniques	164
Modes of Surveillance and Evaluation	169
Control of Pesticides	170
Summary	172
Research Needs	172
7 HOUSING ENVIRONMENT	174
Background and Status	174
Scientific, Technological, and General Information	177
Housing Problems	181
Potential for Intervention	191
Resources	192
Standards, Practices, and Techniques	192
Modes of Surveillance and Evaluation	198
Control of Housing	198
Summary	205
Research Needs	206
8 INSTITUTIONAL ENVIRONMENT	208
Background and Status	208
Scientific, Technological, and General Information	210
Problems in Institutions	214
Potential for Intervention	228
Resources	228
Standards, Practices, and Techniques	229
Modes of Surveillance and Evaluation	242

Institutional Controls	245
Summary	249
Research Needs	249
9 RECREATIONAL ENVIRONMENT	251
Background and Status	251
Scientific, Technological, and General Information	252
Problems in Recreational Areas	252
Potential for Intervention	254
Resources	254
Standards, Practices, and Techniques	254
Modes of Surveillance and Evaluation	261
Control	261
Summary	262
Research Needs	262
10 OCCUPATIONAL ENVIRONMENT	263
Background and Status	263
Scientific, Technological, and General Information	264
Occupational Health Problems	274
Potential for Intervention	288
Resources	289
Standards, Practices, and Techniques	289
Modes of Surveillance and Evaluation	290
Occupational Health Controls	299
Summary	310
Research Needs	310
Bibliography	i
Index	xxxi
About the Author	lv