

Contents

Introduction	VI
Chapter 1 Technology of Smoking	1
1.1 History of Smoking	1
1.2 Smoking-Reasons	2
1.3 Why Smoked Meats Are More Popular in Europe	3
1.4 What is Smoking	4
1.5 Cold Smoking	5
1.6 Warm Smoking	8
1.7 Hot Smoking	8
1.8 Wet Smoking	9
1.9 Smoking Without Nitrates	10
1.10 Why Did We Smoke Meats With Cold Smoke	10
1.11 Why Cold Smoke Is Better For Preserving Meats	11
1.12 Cold Smoke And Fermented Sausages	13
1.13 Bacteriological Benefits of Smoke	14
1.14 Smoke Generation	14
1.15 Wood For Smoking	16
1.16 Dry or Wet Wood	18
1.17 Wood Pieces, Wood Chips or Sawdust	18
1.18 Smoking Temperatures	19
1.19 Smoke Deposition	20
1.20 Humidity Control	20
1.21 How Long To Smoke	23
1.22 Summary of Critical Issues	24
Chapter 2 Curing And Nitrates	25
2.1 Brining, Marinating, Salting, Curing	25
2.2 What is Curing	26
2.3 Curing Temperatures	27
2.4 Methods of Curing	28
2.5 Salt Curing	29
2.6 Dry Curing	29

2.7	Dry Curing Times	30
2.8	Wet Curing	31
2.9	Combination Curing	33
2.10	Making Brine	33
2.11	How Much Brine	35
2.12	Strength of The Brine And Curing Times	35
2.13	Brine Preparation	36
2.14	Curing With Nitrates/Nitrites	37
2.15	Curing And Meat Color	37
2.16	More About Nitrates	38
2.17	What's Better, Nitrate or Nitrite	39
2.18	Nitrate Safety Concerns	40
2.19	Nitrates in Vegetables	41
2.20	How Much Nitrite is Dangerous	42
2.21	Nitrates And The Law	42
2.22	Cure # 1	43
2.23	Cure # 2	43
2.24	Morton™ Salt Cures	44
2.25	European Cures	44
2.26	How To Apply Cures	44
2.27	Too Little or Too Much Cure	47
2.28	Curing Time Too Short or Too Long	47
2.29	Commercial Curing Methods	47
2.30	Curing Accelerators And Water Retention Agents	49
Chapter 3	Cooking	51
3.1	Methods of Cooking	51
3.2	Cooking in a Smoker	51
3.3	Poaching in Water	52
3.4	Baking in Oven	52
3.5	Cooking Pork	53
3.6	Cooking Beef And Poultry	53
3.7	Cooking Fish	54
3.8	Summary	54
Chapter 4	Food Safety	57
4.1	All About Bacteria	57
4.2	Food Spoilage Bacteria	58

4.3	Pathogenic Bacteria	58
4.4	Beneficial Bacteria	59
4.5	Yeasts And Molds	59
4.6	Effects of Time & Temperature on Bacteria Growth ..	59
4.7	Destruction of Bacteria	62
4.8	Toxins	62
4.9	What is Botulism	62
4.10	Where Does Botulism Come From	63
4.11	How to Prevent Botulism	63
4.12	Trichinae	63
4.13	Good Manufacturing Practices	65
4.14	Temperature Control	66
4.15	Storing Meat	66
4.16	Freezing Meat	66
4.17	Thawing Meat	67
Chapter 5	Smoking Meats And Sausages	69
5.1	Smoking Meats	69
5.2	Making And Smoking Sausages	69
5.3	Meat Selection	70
5.4	Curing Meat For Sausages	71
5.5	Grinding	71
5.6	Mixing	72
5.7	Stuffing	72
5.8	Drying	74
5.9	Cooling	74
Chapter 6	Smoking Poultry	75
6.1	Making Brine	75
6.2	Draining And Drying	77
6.3	Smoking	78
Chapter 7	Smoking Fish	79
7.1	Cleaning Fish	82
7.2	Making Brine	84
7.3	Brining Times	85

7.4	Drying Fish	85
7.5	Smoking Fish	86
7.6	Fish Meat Color	88
7.7	Storing Fish	89
7.8	More About Salt	89
Chapter 8	Barbecuing And Grilling	91
8.1	Smoking, Barbecuing, And Grilling	91
8.2	Choice of Fuel	92
8.3	How Hot Is It	93
8.4	Open Fire Barbecue	94
8.5	Building Your Own Barbecue	102
Chapter 9	Wild Game	109
9.1	Big Game	109
9.2	Small Game	110
9.3	Wild Fowl	110
9.4	Jerky	110
9.5	Barbecuing Wild Game	110
9.6	Larding Meat	111
9.7	Barding Meat	112
Chapter 10	Recipes	113
10.1	Sausage Recipe Secrets	114
10.2	Recipes	117
Chapter 11	Smokehouse Design	133
11.1	Old Smokehouses	133
11.2	Design Criteria	146
11.3	Smokehouse Design Principles	149
11.4	Drum Smoker	169
11.5	Barrel And Box Smoker	186
11.6	Box Smoker	187
11.7	Outdoor Smokers	189
11.8	Metal Sheet Smoker	192

11.9	Cardboard Smokers	194
11.10	Concrete Block Smoker	196
11.11	Appliance Smokers	201
11.12	Japanese Kamado Smoker	211
11.13	Masonry Smokehouse	213
11.14	Masonry Smoker/Grill	218
11.15	Storm Water Pipe Smoker	222
11.16	Masonry Smokehouse # 5352	232
11.17	Frame Smokehouse # 5351	238
11.18	Frame Smokehouse # 5695	242
11.19	Masonry Smokehouse # 5695	245
11.20	Factory Made Smokers	250
11.21	Combustion Theory & Fire Pit Design	252
11.22	Baffles	263
11.23	Smokehouse Heating Systems	268
11.24	Gas Burners	274
Chapter 12	Smokehouse and the Local Law	285
Chapter 13	Smokehouse Construction Photos	289
Appendix A	Tables and Formulas	295
	How To Calculate Nitrates & Cures	295
	How To Use Brine Tables	297
	Humidity Control	304
Appendix B	Useful Information	308
	Links	308
	Recipe Index	310
	Index	311