

This is the **15-page** Table of Contents from *The Original Encyclopizza*.

To return to prior page, use your Back button. ~ To get more info on this book, go to:

http://correllconcepts.com/Encyclopizza/_home_encyclopizza.htm

To order this book, go to: <https://www.createpace.com/3723337>

Contents in Brief

Introduction to Pizza.....	21
Chapter 1 – On-site Preparation vs. Ready-to-Use.....	25
Chapter 2 – Mixers and Food Processing Equipment.....	39
Chapter 3 – Dough Ingredients.....	105
Chapter 4 – Dough-making	165
Chapter 5 – Dough Management	225
Chapter 6 – Dough and Crust Troubleshooting.....	233
Chapter 7 – Sauce.....	265
Chapter 8 – Cheese.....	319
Chapter 9 – Toppings	359
Chapter 10 – Commissary vs. On-site Preparation	409
Chapter 11 – Ordering, Receiving, and Storage	417
Chapter 12 – Measurements and Conversions	437

~ See next page for **Contents in Detail** ~

Contents in Detail

Introduction to Pizza.....	21
What is Pizza?	21
Pizza Classification	22
Crust Thickness.....	22
Shape.....	23
Assembly Platform.....	23
- Chapter 1 – On-site Preparation vs. Ready-to-use	25
Crust Options	25
Dough From Scratch	26
Dough From a Mix	26
Frozen Dough Ball	27
Frozen Rolled Dough.....	28
Parbaked and Pre-baked Crust	28
Sauce Options	30
All Fresh Ingredients.....	31
Canned Tomato Product Combined with Spices in the Pizzeria	31
Ready-to-use or Fully Prepared Pizza Sauce	32
Cheese Options	32
Block or Loaf Cheese.....	32
Ready-to-use Cheese	33
Topping Options	34
Unprocessed Toppings.....	34
Ready-to-use Toppings.....	35
Evaluating the Options	36
Customer’s Product Expectations & Perceptions	36
Space Availability.....	37
Start-up Budget.....	37
Operating Costs.....	37
Investment Cost	37
Flexibility Requirements	37
Labor and Management Availability.....	38
- Chapter 2 – Mixers and Food Processing Equipment.....	39
Ingredient Processing Methods	39
Five Types of Mixers	41
Planetary Mixers	41
Sellers	42
Sizes	43
Dough Capacity.....	43
Types & Uses of Agitators	45
Types & Uses of Food Processing Attachments	48

Standard and Optional Features.....	50
Advantages & Drawbacks of Planetary Mixers	54
Installation and Maintenance.....	55
Operation.....	56
Safety Precautions	56
Cleaning	56
Cutter-mixers.....	57
Sellers	58
Sizes	58
Batch Size Capacity	59
Mixing Speed	59
Types & Uses of Cutting/kneading Shafts	60
Standard and Optional Features.....	61
Advantages & Drawbacks of Cutter-mixers.....	62
Installation and Maintenance.....	64
Operation.....	65
Safety Precautions	67
Cleaning	67
Cleaning Between Sauce and Cheese	68
Cleaning Between Sauce and Dough	68
Full Cleaning Procedure After Last Product	68
Spiral Mixers.....	71
Sellers	71
Size & Batch Capacity	72
Mixing Speed	72
Features	72
Advantages & Drawbacks of Spiral Mixers	73
Installation, Maintenance, and Operation	74
Reciprocating Arm Mixers.....	74
Horizontal Mixers.....	75
Batch-type Dividers & Rounders.....	76
Installation, Maintenance, and Operation	78
Continuous Dividers and Rounders	79
The Dividing Process.....	79
The Rounding Process.....	80
Table Models	80
Combination Divider-rounders	81
Separate Dividers and Rounders	81
Slicers.....	82
Sellers	82
Types	83
Features	83
Optional Accessories	84
Advantages & Drawbacks of Slicers	85
Operation.....	86
Safety Precautions	87
Cleaning	87
Between Products	87

When Done Slicing	87
Disc-type Cutters	89
Manual Cutter	89
Cutter Attachment	90
Stand-alone Machines	90
Blade-type Cutters	91
Grinders (Choppers)	92
Bowl Chopper	93
Sauce Mixing Equipment	94
Cheese Processing Equipment	94
Manual Cheese Cutter or Slicer	95
Large Volume Shredders	95
Large Volume Dicer	95
Cutter-mixers	96
Measuring Equipment	96
Thermometers	96
Timers	98
Scales	98
Measuring Spoons & Cups	100
Other Measuring Devices	100
Brix Refractometer	100
Moisture Analyzer	101
Risograph	102
Dough Trays & Containers	102
Other Equipment	103
Purchasing Pointers	104
- Chapter 3 – Dough Ingredients	105
The Ready-to-Use Option	105
Using a Partial mix	106
Advantages and Drawbacks	106
Baker’s Percents	106
Types of Ingredients	107
Flour	107
Role in Baking	108
Wheat	108
Species and Varieties	108
Wheat Classification	109
Color of Wheat	110
Flour Protein	110
Amylase Content, Wheat Sprouting, and Gummy Layer	111
Kernel Structure	112
Wheat Grades	113
The Milling Process	114
Flour Grades	116
Flour Treatment and Additives	117
Flour Composition and Reactions	120
Properties of Quality Pizza Flour	122

Flour Testing Methods	125
Gluten Ball Test	126
Baking Test	126
Flour Purchasing and Storage	127
Three Types of Bakery Flour	127
Flour for Pizza Crust	127
Bleached vs. Unbleached	127
The Look and Feel of Pizza Flour	127
Type and Grade	128
Packaging Sizes	128
Product Consistency	128
Brands	129
Technical Assistance	129
Storage	129
Supplemental Flours & Meals	130
Types	130
Amount	130
Dough Changes	132
Water	132
Amount and Baker's Percent	132
Hardness	133
pH	133
Yeast	134
Fermentation	135
Role of Yeast	136
Factors Affecting Amount of Rise	136
Conditions Affecting Fermentation Rate	137
Rehydration	139
Varieties of Yeast	139
Compressed Yeast	139
Preparation and Usage	140
Storage	140
Advantages & Drawbacks	141
Crumbled Yeast	141
Cream Yeast	141
REGULAR Active Dry Yeast	142
Rehydration and Usage	142
Storage	142
Advantages & Drawbacks	142
INSTANT Dry Yeast	143
Dry mixing, Rehydration, and Usage	143
Storage	144
Advantages & Drawbacks	144
PROTECTED Dry Yeast	144
Summary Recommendations	144
Chemical Leaveners	145
Salt	145
Sugar	146

Effects of Sugar	146
Types and Amount of Sugar	147
Oil & Shortening	148
Effects of Oil & Shortening	148
Types and Amount of Oil & Shortening	149
A Word on Olive Oil	149
Amount	150
Health Considerations	151
Saturated vs. Unsaturated.....	151
Cholesterol Content.....	151
Storage.....	152
Non-fat Dry Milk	152
Effects of Non-fat Dry Milk	152
Amount.....	153
Whey and Other Dairy Products.....	153
Storage.....	154
Eggs	154
Flavorings & Colorings	154
Flavor Variations	155
Color Variations	156
Dough Additives	157
How to Start	157
Types of Additives.....	158
Nutritional Enhancements.....	159
Vital Wheat Gluten	159
Whey & Milk Replacers	159
Fermentation Enhancers – Yeast Foods and Water Conditioners ...	160
Fermentation Enhancers – Enzymes (Malt).....	160
Gluten Relaxers – Protease Enzymes & Reducing Agents	161
Gluten Strengtheners – Oxidizing Agents & Dough Strengtheners	162
Surfactants.....	162
Gums	163
Mold Inhibitors.....	163
Concluding Note.....	163
- Chapter 4 – Dough-making	165
The Ready-to-Use Option	165
Baker’s Percents	166
Two Variations: Dough Ball and Bulk	166
Dough Ball Method	167
Bulk Method	167
Dough-making Steps.....	167
STEP 1: Setting-up.....	168
STEP 2: Rehydrating Yeast and Scaling Ingredients.....	168
Rehydrating Yeast.....	168
Scaling Ingredients	169
STEP 3: Mixing.....	171

Ingredients Sequence	172
Mixing Times	172
Batch size	174
Stages of Dough Development	175
Emergency Dough	176
Compensating for Mistakes	176
STEP 4A: Scaling, Rounding, Traying	177
Manual Scaling & Rounding	177
Batch Dividing-rounding	178
Continuous Dividing-rounding	179
STEP 4B: Bulk Fermentation	180
Bench-resting	180
STEP 5: Retarding (or else proofing)	180
Proofing	181
Formula Development	181
Formula Balance	182
Dry vs. Liquid Ingredients	182
Strengthening vs. Tenderizing Ingredients	184
Ingredient Effects	184
Lean Dough, Rich Dough	186
Development Questions	186
Development Process	187
Set Up a Test Kitchen	188
Write It Down	189
Compare Each Test Batch to a "Best-yet" Recipe	189
Make Informed Guesses	190
Try Many Things, Including Your Hunches	190
Vary Both Amount and Type of Ingredients	190
Convert the Best Test Recipe to Large-batch Size	191
Create a Written Procedure and Follow It	191
Baking Test	191
Baker's Percents	193
Dough Formulas	194
1. All-purpose Dough	196
2. Fast-rising Dough	196
3. Easy-to-sheet Dough	197
4. High-browning Crust	197
5. Lean 'n' Chewy Crust	198
6. Rich 'n' Tender Crust	198
7. Thin 'n' Crackery Crust (stiff dough)	199
8. Chicago Deep-dish Crust	199
9. Basic Neapolitan Crust	200
10. Basic Sicilian Crust	200
11. Whole Wheat Crust	201
12. Three-grain Crust	201
13. Higher-protein Crust	202
14. Herb & Wine Crust	202
15. Pepper-Cheese Crust	203

16. Beer Crust	203
17. Garlic & Butter Crust	204
18. Italian Accent Crust	204
19. French Sour Dough Crust	205
20. Crostata Crust	205
21. Diet-enhanced Crust	206
Diet-enhanced Pizza	206
Retarded Dough	207
All-purpose Dough for Retarding	208
Frozen Dough	210
Parbaked Crust	211
Sample Production Procedure	212
Introduction	213
Recipe for One Batch	213
Set-up	214
Planetary Mixer Assembly	215
Cutter-mixer Assembly	215
Scaling Ingredients	215
Mixing	216
Using a Planetary Mixer	216
Using a Cutter-mixer	217
Dividing, Rounding, and Traying	219
Manual Scaling and Rounding	219
Optional Procedure: Used with a Batch Divider-rounder (fully automatic type)	219
Refrigerating (retarding)	220
Quality & Production Standards	221
Mix Packet Procedure	221
Planetary Mixer Procedure	222
Cutter-mixer Procedure	223
- Chapter 5 – Dough Management	225
Proper Dough Rise	225
Managing Dough Temperature	226
How to Retard Dough Rising	227
How to Speed-up Dough Rising	228
Dough Management is Continuous	230
Planning and Rotation	231
Crusting Control	231
Dough Formula Adjustments	232
To Increase Amount of Fermentation	232
To Decrease Amount of Fermentation	232
- Chapter 6 – Dough and Crust Troubleshooting	233
How to Use This Chapter	233
Additional Help	233
Dough too stiff or too firm	234
Dough too slack or too soft	235

Dough balls not rising at all (unrisen or dead dough)	235
Under-risen dough balls, or dough balls rising too slowly	236
Over-risen dough balls, or dough balls rising too quickly	237
Dough balls joining together in the dough tray	237
Dough has an odor of beer	238
Dough balls collapsing (blown dough)	238
Dough (crust) not rising in the oven, even though the dough balls were proofed	239
Panned dough collapsing when sauced	239
Crust forming on dough balls	240
Dough too elastic or springy, or shrinks excessively after stretching ...	241
Dough too extensible or spreadable, or thin spots occurring during screening	242
Dough too large after rolling or stretching, won't fit pan or screen	242
Dough sticking to rolling pin, table, or hands	243
Dough tearing in a dough press	243
Excessive flour sticking to rolled dough	244
Black spots on top of dough ball	245
Bluish-black spots on underside of dough ball	245
Crust not brown enough all over	246
Crust too brown all over	246
Crust not brown enough on bottom	247
Crust too brown on bottom	248
Crust not browning and has a tough texture	248
Top edge of outer crust has a whitish color, but rest of pizza is done ..	249
Crust browns on one side only or browns unevenly	249
Crust edge is burnt, but rest of pizza is properly done	249
Crust color uneven	250
Large white pockets on bottom of pan pizza crust	250
Crust fully baked but still has a white surface	250
Crust forms bubbles during baking	251
Discussion: Crust Bubbling	251
Crust grain is too close (small cells)	253
Crust grain is too open (large cells)	253
Streakiness or uneven grain in crust	253
Crust edge has large burnt spots	254
Crust bakes up flat (no oven spring)	254
Crust collapses (shrinks in height) immediately after pizza is taken from the oven	255
Crust tough and leathery (especially after it cools down)	255
Crust flat and crackery	256
Crust flat, dense, and tough	256
Crust lacks flavor	257
Crust has peculiar flavor	258
Crust has doughy layer under the sauce, or crust done on outside but raw inside	259
Discussion — Doughy Layer vs. Gummy Layer	259
Crust has gummy layer under the sauce	260

Soggy crumb with grayish tint or translucent, gummy appearance.....	260
Crust is uneven thickness (thick edge, thin middle)	261
Crust is soggy or floppy, or slice flops over when picked up.....	261
When parbaking, crust separates like pita or pocket bread	262
Crust made from retarded dough has small blisters	262
Crust sticks to pan or screen	263
How to Season Pans	263
- Chapter 7 – Sauce.....	265
The Ready-to-Use Option	265
Tomato Options	266
Types of Canned Tomato Products	266
Single Strength Tomatoes	267
Whole Tomatoes	268
Diced, Chopped and Crushed/Ground Tomatoes.....	268
Concentrated Tomato Products	268
Puree and Paste	269
Pizza Sauce	271
Two Kinds of Sauce	272
Combination Tomato Products	273
Tomato Misconceptions.....	273
Effect of Heat on Tomato Flavor	274
Decrease in Fresh Flavor	274
Increase in Cooked Flavor	275
Vacuum Evaporation vs. Atmospheric Cooking.....	275
Tomatoes Used in Canning	275
Manufacturing Process.....	276
Packing From Fresh Tomatoes.....	279
Packing from Concentrate	279
Factors Causing Poor Quality.....	280
Evaluating Tomato Products	281
Evaluating Physical Properties of Uncooked Product by a Taste Test	282
Baking Test	283
Measuring Dissolved Solids with a Brix Refractometer.....	283
Purchasing, Handling, and Storage of Tomato Products	284
Container Options	285
Packed From Fresh Tomatoes or From Concentrate?.....	285
Ingredient Label	285
Consistency Over Time	285
Receiving, Storing, Opening Cans	286
Spices & Seasonings	286
Spices	287
Pizza Spice Rankings	287
Oregano	288
Basil	288
Fennel Seed	288
Parsley	289

Bay leaf.....	289
Substitute Spices for Testing	289
Purchasing, Storage, Usage.....	289
Pepper.....	290
Black Pepper	290
Red Pepper	291
Hot Sauces	291
Mustard Powder and Hot Paprika	291
Garlic & Onion.....	292
Fresh Garlic.....	292
Fresh Onion	293
Dehydrated Garlic and Onion	293
Jar Garlic	293
Frozen Garlic	293
Concentrated Garlic and Onion Base	294
Salt & Sugar	294
Olive Oil.....	294
Grated Hard Cheeses	295
Vegetables	295
Meat & Meat Bases	296
Wine and Other Liquids	296
Flavoring Sauces	296
Resins	296
Preparing and Storing Sauce	297
Preparing Cooked Sauce.....	297
Preparing Uncooked Sauce.....	298
Measuring and Blending Dry Ingredients.....	299
Dried Spice & Seasoning: Teaspoons Per Ounce	300
Storing and Rotating Sauce.....	301
Recipe Development Questions	302
Cost vs. Quality.....	305
Sauce Formulas.....	306
Useful Information	306
1. Simple Sauce (but tasty).....	307
2. Neapolitan Blend.....	308
3. Sicilian Blend.....	308
4. Hot 'n' Spicy.....	309
5. Mild 'n' Mellow	309
6. Rich 'n' Hearty.....	310
7. Fresh 'n' Tangy.....	311
8. Sweet 'n' Sassy	311
9. Chicago Deep-dish Flavor	312
10. Garlic 'n' Wine	312
11. Fennel 'n' Beer	313
Sample Production Procedure	313
Introduction	314
Recipe for One Batch (Simple Sauce)	314
Set-up.....	314

Scaling and Mixing.....	315
Portioning and Storage.....	316
- Chapter 8 – Cheese.....	319
Types of Cheese for Pizza.....	319
Cheese-making Process	320
Aging Process	323
Degrees of Hardness.....	324
Standards of Identity	325
Mozzarella	325
History	325
Types of Mozzarella	325
Fresh Mozzarella	327
Aging Time and Rate.....	327
Impact on Flavor, Texture, and Baking Performance.....	328
Purchasing Options	328
Gas-flushed Cheese.....	328
Quick-frozen Cheese.....	329
Loaf vs. Ready-to-use.....	329
Selection Considerations.....	330
Composition and Performance of Low-priced Mozzarella	333
Economics of High-priced vs. Low-priced Cheese	334
Specifications and Consistency are Key	335
Ask for a Specification Sheet.....	335
Contact the Manufacturer for Batch Information	335
Get Informed — Tour a Cheese Plant	335
Whole Milk vs. Part-Skim	336
Match Cheese to Bake Time.....	338
Receiving	338
Storage.....	339
Substitute Mozzarella	340
Reduced Fat Mozzarella	341
Provolone	342
Cheddar	342
Parmesan	343
Romano	344
Other Cheeses.....	344
Monterey Jack.....	344
Brick	345
Muenster.....	345
Gouda and Colby.....	345
Swiss and Gruyere.....	345
Feta	346
Asiago	346
Fontina	346
Gorgonzola.....	346
Ricotta.....	346
Pizza Cheese	347

Cheese Blends.....	347
Some Popular Blends.....	348
Two-cheese Blends, or Mozzarella + One.....	348
Four-cheese Blends.....	348
White Pizza Blends.....	349
Specialty Pizza Blends.....	349
Baking Test.....	350
Processing Methods.....	351
Slicing.....	351
Grinding.....	352
Shredding/grating.....	352
Chopping.....	353
Dicing.....	353
Cheese Cutters.....	354
Large vs. Small Granule Size.....	354
Sample Production Procedure.....	354
Introduction.....	355
Set-up.....	355
Chopping.....	356
Portioning and Storage.....	357
- Chapter 9 – Toppings.....	359
The Ready-to-Use Option.....	359
Toppings Popularity.....	360
Pepperoni.....	360
Composition.....	360
Pizza Sausage.....	361
Pepperoni-making Process.....	361
American-style vs. Traditional.....	364
Performance Issues.....	365
Coverage and Food Cost.....	365
Purchasing.....	366
Storage.....	366
Slicing Tips.....	367
Sample Production Procedure.....	367
Set-up.....	368
Slicing.....	369
Portioning and Storage.....	370
Italian Sausage.....	371
Composition.....	371
Purchasing.....	371
Pre-cooked Sausage.....	371
Raw Sausage.....	372
Whole Pork Cuts.....	372
Making Sausage.....	373
Storage.....	374
Application.....	374
Sample Production Procedure.....	375

Ground Beef or Hamburger	376
Purchasing	376
Making Ground Beef	376
Storage.....	377
Ham & Canadian Bacon	377
Types of Ham and Canadian Bacon	377
Purchasing	378
Slicing and Storage.....	378
Sample Production Procedure.....	379
Set-up.....	379
Slicing	380
Portioning and Storage	381
Bacon	382
Chicken	382
Seafood.....	382
Purchasing and Preparation	383
Mushrooms	384
Varieties of Mushrooms	384
Quality Standard	385
Mushroom Growing Process	385
Fresh Mushrooms	387
Processing Methods	388
Size Categories.....	388
Whole and Sliced	388
USDA Grades	388
Purchasing, Storage, and Preparation.....	389
Impact of Storage Temperature On Vegetables.....	389
Canned Mushrooms	390
Canning Process	390
Styles (or Cuts)	391
Grades	392
Purchasing, Storage, and Preparation.....	392
Domestic vs. Imported.....	393
Fresh vs. Canned	393
Fresh-blanching Mushrooms.....	394
Frozen Mushrooms	394
Onion.....	394
Ready-to-use Fresh Onion	395
Fresh Whole Onion	395
Early Onions.....	396
Late Onions.....	396
Purchasing and Storage	396
To Prepare Sliced and Slivered Onion with a Slicer	397
To Prepare Diced Onion Quickly.....	398
To Prepare Diced Onion with a Knife	398
Storage of Prepared Onion	398
Pre-cooking.....	399
Green Pepper	399

Ready-to-use Fresh Green Pepper	399
Canned Green Pepper	399
Fresh Whole Green Pepper	400
To Prepare Sliced and Slivered Pepper	400
To Prepare Diced Pepper Quickly	401
To Prepare Diced Pepper with a Knife	401
Storage of Prepared Pepper	402
Pre-cooking	402
Olives	402
Quality Standard	402
Pineapple	403
Fresh Tomato	403
To Prepare Sliced Tomato Quickly	404
To Prepare Sliced Tomato with a Knife	404
Storage of Sliced Tomato	404
Specialty Toppings	405
Tips on Preparing Fresh Vegetables	406
- Chapter 10 – Commissary vs. On-site Preparation	409
Types of Commissary Systems	409
Production Commissary in Perspective	410
Advantages	410
Drawbacks	411
Key Questions	411
The Cost Issue	411
Operating Costs of a Production Commissary	412
Operating Costs of On-site Preparation	412
The Quality Issue	413
Final Comments	414
- Chapter 11 – Ordering, Receiving, and Storage	417
Product Design	417
On-site Preparation vs. Ready-to-use	418
Brand Selection	418
Comparative Testing	418
Price vs. Quality	419
Price vs. Yield	420
Supplier Selection	420
How to Get the Most from Suppliers	422
Compare Prices on a Regular Basis.	422
Don't Divulge Competitor's Prices.	422
Be Wary of Loss-leader "Deals."	422
Set the Rules and Priorities at the Start.	423
Expect Good Performance and Don't Accept Less than What's Promised.	423
Use Good Ordering and Receiving Procedures.	424
Use Your Salesperson as an information Resource.	424
Be a Good Customer	424

Ordering.....	425
Calculating Order Amounts	426
Receiving.....	428
Receiving Block Cheese	430
Storage	431
General Guidelines	431
Guidelines for Specific Products	431
Maximizing Storage Space	434
- Chapter 12 – Measurements and Conversions	437
Abbreviations	437
Liquid Volume Equivalents.....	438
Factor for Converting U.S. to British	438
Factors for Converting U.S. to Metric	439
Temperature Scale.....	440
Weight Scale.....	441
Liquid Volume Scale	442
Length Scale	442
Cup Weight Equivalents	443