



UNDERSTANDING YEAST PRODUCTS

YEAST PRODUCT TYPES

Although all yeast doughs are made according to essentially the same basic principles, it is useful to divide yeast products into categories such as the following.

REGULAR YEAST DOUGH PRODUCTS

After reading this chapter, you should be able to

1. Prepare breads and dinner rolls.
2. Prepare sweet dough products.
3. Prepare Danish pastry and croissants.

Lean Dough Products

A **lean dough** is one that is low in fat and sugar.

- Hard-crustured breads and rolls, including French and Italian breads, kaiser rolls and other hard rolls, and pizza. These are the leanest of all bread products.
- Other white breads and dinner rolls. These have a higher fat and sugar content and, sometimes, also contain eggs and milk solids. Because they are slightly richer, they generally have soft crusts.
- Whole-grain breads. Whole wheat and rye breads are the most common. Many varieties of rye bread are produced with light or dark flours or with pumpernickel flour and with various flavorings, especially molasses and caraway seeds.

Rich Dough Products

There is no exact dividing line between rich and lean doughs but, in general, rich doughs contain higher proportions of fat, sugar, and, sometimes, eggs.

- Nonsweet breads and rolls, including rich dinner rolls and brioche. These have a high fat content but low enough sugar that they can be served as dinner breads. Brioche dough is especially rich, made with a high proportion of butter and eggs.
- Sweet rolls, including coffee cakes and many breakfast and tea rolls. These have high fat and sugar and, often, eggs. They are usually made with a sweet filling or topping.

ROLLED-IN YEAST DOUGH PRODUCTS

Rolled-in doughs are those in which a fat is incorporated into the dough in many layers by means of a rolling and folding procedure. The alternating layers of fat and dough give the baked product a flaky texture.

- Nonsweet rolled-in doughs: croissants.
- Sweet rolled-in doughs: Danish pastry.

MIXING METHODS

Mixing yeast doughs has three main purposes:

1. To combine all ingredients into a uniform, smooth dough.
2. To distribute the yeast evenly throughout the dough.
3. To develop gluten.

Three principal mixing methods are used for yeast doughs: the straight dough method, the modified straight dough method, and the sponge method.

STRAIGHT DOUGH METHOD

There is only one step in this method, as practiced by many bakers.

Some bakers dissolve the compressed yeast in some of the water before adding the remaining ingredients. Others omit this step. Active dry yeast, on the other hand, must be rehydrated before mixing.

The advantage of softening the yeast in water is that it helps ensure that the yeast is evenly distributed in the dough.

Procedure: Straight Dough Mixing Method

Combine all ingredients in the mixing bowl and mix.

MODIFIED STRAIGHT DOUGH METHOD FOR RICH DOUGHS

For rich sweet doughs, the method is modified to ensure even distribution of the fat and sugar.

Procedure: Modified Straight Dough Method

1. Soften the yeast in part of the water.
2. Combine the fat, sugar, salt, milk solids, and flavorings and mix until well combined, but do not whip until light.
3. Add the eggs gradually, as fast as they are absorbed.
4. Add the liquid and mix briefly.
5. Add the flour and yeast. Mix into a smooth dough.

Procedure: Sponge Method

SPONGE METHOD

Sponge doughs are prepared in two stages.

1. Combine the liquid (or part of the liquid), the yeast, and part of the flour (and, sometimes, part of the sugar). Mix into a thick batter or soft dough. Let ferment until double in bulk.
2. Punch down and add the rest of the flour and remaining ingredients. Mix to a uniform, smooth dough.

STEPS IN YEAST DOUGH PRODUCTION

The production of yeast breads involves 12 basic steps. These steps are applied to yeast products in general, with variations depending on the particular product.

- | | |
|------------------------|-----------------------|
| 1. Scaling ingredients | 7. Benching |
| 2. Mixing | 8. Makeup and panning |
| 3. Fermentation | 9. Proofing |
| 4. Punching | 10. Baking |
| 5. Scaling | 11. Cooling |
| 6. Rounding | 12. Storing |

As you can see, mixing of ingredients into a dough is only one part of a complex procedure.

SCALING INGREDIENTS

All ingredients must be weighed accurately. The only items that may be measured by volume are water, milk, and eggs, which may be scaled at 1 pint per pound (or 1 liter per kilogram).

MIXING

Use the *dough arm* attachment when using a vertical mixer. Mix for the specified time.

The first two purposes of mixing—combining the ingredients into a dough and distributing the yeast—are accomplished during the first part of mixing. The remaining time is necessary to develop the gluten. Overmixed and undermixed doughs have poor volume and texture. (Review “Gluten Development,” p. 895.)

It is necessary for you to learn to tell by sight and feel when a dough is thoroughly mixed. This can be done only through experience and with the guidance of your instructor. A properly developed dough feels smooth and elastic. A lean dough should not be sticky.

Sometimes it is necessary to add a little more flour if the dough hasn't lost its stickiness after most of the mixing time has passed.

Rich doughs are generally undermixed slightly because greater tenderness is desired for these products.

Note: Mixing speeds and times given in bread formulas in this book are guidelines only. Small mixers might be damaged if they are run at too high a speed with a stiff dough. In such cases, use a lower speed and extend the mixing time as necessary. Depending on the mixer, developing a dough at first or slow speed requires about twice as much mixing time as at second speed. Follow the manufacturer's recommendations.

FERMENTATION

Fermentation is the process by which yeast acts on the sugars and starches in the dough to produce carbon dioxide gas and alcohol.

Procedure For Fermenting Yeast Doughs

1. Place the dough in a lightly oiled container and oil the surface to prevent a crust from forming. (This may not be necessary if humidity is high—about 75 percent.)
2. Cover the container lightly and let the dough rise at a temperature of about 80°F (27°C).
3. Fermentation is complete when the dough has doubled in volume. If fermentation is complete, a dent will remain after the hand is pressed into the top of the dough.

Gluten becomes smoother and more elastic during fermentation. An underfermented dough does not develop proper volume, and the texture will be coarse. A dough that ferments too long or at too high a temperature becomes sticky, hard to work, and slightly sour.

An underfermented dough is called a *young dough*. An overfermented dough is called an *old dough*.

Doughs with weak gluten, such as rye doughs and rich doughs, are usually underfermented or “taken to the bench young.”

PUNCHING

Punching is *not* hitting the dough with your fist. It is a method of deflating the dough that *expels carbon dioxide, redistributes the yeast* for further growth, *relaxes the gluten*, and *equalizes the temperature* throughout the dough.

Procedure For Punching Yeast Doughs

Pull up the dough on all sides, fold over the center, and press down. Then turn the dough upside down in the bowl.

A second fermentation and punching may or may not take place, depending on the product.

SCALING

Using a baker's scale, divide the dough into pieces of uniform weight, according to the product being made.

During scaling, allowance is made for weight loss due to evaporation of moisture in the oven. This weight loss is approximately 10 to 13 percent of the weight of the dough. Allow an extra $1\frac{1}{2}$ to 2 ounces of dough for each 1 pound of baked bread, or 50 to 65 grams per 500 grams.

ROUNDING

After scaling, the pieces of dough are shaped into smooth, round balls. This procedure forms a kind of skin by stretching the gluten on the outside of the dough into a smooth layer. Rounding simplifies later shaping of the dough and also helps retain gases produced by the yeast.

Your instructor will demonstrate rounding techniques. Machines are also available that divide and round portions of dough automatically. Figure 30.1 illustrates a piece of dough being rounded by hand.



Figure 30.1

To round a piece of dough, roll the dough on the bench with the palm of your hand. As you rotate the dough, use the edge of your hand to pinch the dough against the bench. This movement stretches the surface of the dough so it is completely smooth except for a seam at the bottom where it was pinched together.

BENCHING

Rounded portions of dough are allowed to rest on the bench for 10 to 15 minutes. This relaxes the gluten to make shaping the dough easier. Also, *fermentation* continues during this time.

MAKEUP AND PANNING

The dough is shaped into loaves or rolls and placed in pans or on baking sheets. For all loaves and rolls, the seam must be centered on the bottom to avoid splitting during baking.

Breads and rolls take a great many forms. A variety of shapes and techniques is presented in the next section.

PROOFING

Proofing is a continuation of the process of yeast *fermentation*, which increases the volume of the shaped dough. Bakers use different terms so they can distinguish between fermentation of the mixed dough and proofing of the made-up product before baking. Proofing temperatures are generally higher than fermentation temperatures.

Procedure For Proofing Yeast Dough Products

Place the panned products in a proof box at 80° to 85°F (27° to 30°C) and about 70 to 80 percent humidity, as indicated in the formula. Proof until double in bulk.

If a proof box is not available, come as close to these conditions as you can by covering the products to retain moisture and setting them in a warm place.

Underproofing results in poor volume and dense texture. Overproofing results in coarse texture and some loss of flavor.

Rich doughs are slightly underproofed because their weaker gluten structure will not withstand much stretching.

BAKING

As you recall from the previous chapter, many changes take place in a dough during baking. The most important changes are these:

1. **Oven spring**, which is the rapid rising in the oven due to production and expansion of trapped gases as a result of the oven heat. The yeast is very active at first but is killed when the temperature inside the dough reaches 140°F (60°C).
2. Coagulation of proteins and gelatinization of starches. In other words, the product becomes firm and holds its shape.
3. Formation and browning of the crust.

Load the ovens carefully, as proofed doughs are fragile until they become set by baking.

Oven temperatures must be adjusted for the product being baked. Rolls spaced apart are baked at a higher temperature than large loaves so they become browned in the short time it takes to bake them. In general, lean breads such as those popular in North America are baked at 400° to 425°F (200° to 220°C), while some French breads and rolls are baked at 425° to 475°F (220° to 245°C). Rich doughs and sweet doughs are baked at a lower temperature, 350° to 400°F (175° to 200°C) because their fat, sugar, and milk content makes the crust brown faster.

Hard-crust breads are baked with steam injected into the oven during the first part of the baking period. This aids the formation of a thin, crisp crust.

Rye breads also benefit from baking with steam for the first ten minutes.

A break on the side of the loaf is caused by continued rising after the crust is formed. To allow for this final expansion, hard-crust breads are cut or scored before baking by making shallow slashes on the top of the loaf with a sharp knife or razor.

Small rolls bake completely without a break, so they are usually not scored.

Baking times vary considerably, depending on the product. A golden-brown crust color is the normal indication of doneness. Loaves that are done sound hollow when thumped.

COOLING

After baking, bread must be removed from pans and cooled rapidly on racks to allow the escape of excess moisture and alcohol created during fermentation.

Rolls baked apart from each other on sheets may be left on them because they will get adequate air circulation.

If soft crusts are desired, breads may be brushed with melted shortening before cooling.

Do not cool in a draft, or crusts may crack.

STORING

Breads to be served within eight hours may be left on racks. For longer storage, wrap cooled breads in moistureproof bags to retard staling. Bread must be thoroughly cool before wrapping, or moisture will collect inside the bags.

Wrapping and freezing maintains quality for longer periods. Refrigeration, on the other hand, increases staling.

Hard-crust breads should not be wrapped (unless frozen), or the crusts will soften.

Because of the complexity of bread production, many things can go wrong. To remedy common bread faults, check Table 30.1 for possible causes and correct your procedures.

Table 30.1
Bread Faults and Their Causes

Fault	Causes
Shape	
Poor volume	Too much salt Too little yeast Weak flour Under- or overmixing Improper fermentation or proofing Oven too hot
Too much volume	Too little salt Too much yeast Too much dough scaled Overproofing
Poor shape	Too much liquid Improper molding or makeup Improper proofing Too much steam in oven
Split or burst crust	Overmixing Underfermentation Improper molding—seam not on bottom Oven too hot Not enough steam in oven
Texture and crumb	
Too dense or close grained	Too little yeast Underproofing Too much salt Too little liquid
Too coarse or open	Too much yeast Too much liquid Incorrect mixing time Improper fermentation Overproofing Pan too large
Streaked crumb	Improper mixing procedure Poor molding or makeup techniques Too much flour used for dusting
Poor texture or crumbly	Fermentation time too long or too short Overproofing Baking temperature too low Flour too weak Too little salt
Gray crumb	Fermentation time too long or temperature too high
Crust	
Too dark	Too much sugar or milk Underfermentation (young dough) Oven temperature too high Baking time too long Insufficient steam at beginning of baking
Too pale	Too little sugar or milk Overfermentation (old dough) Overproofing Oven temperature too low Baking time too short Too much steam in oven
Too thick	Too little sugar or fat Overfermentation (old dough) Baked too long and/or at too low a temperature Too little steam
Blisters on crust	Too much liquid Improper fermentation Improper shaping of loaves
Flavor	
Flat taste	Too little salt
Poor flavor	Inferior, spoiled, or rancid ingredients Poor bakeshop sanitation Under- or overfermentation

ROLLED-IN DOUGHS: DANISH PASTRY AND CROISSANTS

Rolled-in doughs contain many layers of fat sandwiched between layers of dough. These layers create the flakiness you are familiar with in Danish pastry.

Two basic kinds of rolled-in yeast doughs are made in the bakeshop:

- sweet: Danish pastry
- nonsweet: croissants

Rolled-in doughs are mixed only slightly because the rolling-in procedure continues to develop the gluten.

Butter is the preferred fat for flavor and the melt-in-the-mouth quality of rolled-in doughs. Specially formulated shortenings are available when lower cost and greater ease of handling are more important considerations.



Danish Pastry



Ingredients	U.S.	Metric	Percentage	
Milk	1 lb	400 g	40%	■ Procedure
Yeast, fresh	2.5 oz	65 g	6.25%	
Butter	5 oz	125 g	12.5%	Mixing: Modified straight dough method: 1. Scald milk. Cool to lukewarm. Dissolve yeast in milk. 2. Mix butter, sugar, salt, and spice until smooth, using paddle. Beat in eggs and yolks. 3. Add liquid (from step 1) and flour. With dough arm, mix 3–4 minutes on 2nd speed. 4. Rest in retarder 20–30 minutes. 5. Roll in remaining butter and give 3 three-folds, as shown in Figure 30.3. Makeup: See makeup techniques after recipe section. Proofing: 90°F (32°C) with little steam. Egg wash after proofing. Baking: 375°F (190°C).
Sugar	6 oz	150 g	15%	
Salt	0.5 oz	12 g	1.25%	
Cardamom	1 tsp	2 g (5 mL)	0.2%	
Eggs	8 oz	200 g	20%	
Egg yolks	2 oz	50 g	5%	
Bread flour	2 lb	800 g	80%	
Cake flour	8 oz	200 g	20%	
Butter	1 lb 4 oz	500 g	50%	
<i>Yield:</i>	<i>6 lb 4 oz</i>	<i>2499 g</i>	<i>250%</i>	

Per 1 ounce:
Calories, 110; Protein, 2 g; Fat, 6 g (53% cal.); Cholesterol, 35 mg; Carbohydrates, 10 g; Fiber, 0 g; Sodium, 120 mg.



Croissants



Ingredients	U.S.	Metric	Percentage	
Milk	1 lb	450 g	57%	■ Procedure
Yeast, fresh	1 oz	30 g	4%	
Sugar	1 oz	30 g	4%	
Salt	0.5 oz	15 g	2%	
Butter, soft	3 oz	80 g	10%	
Bread flour	1 lb 12 oz	800 g	100%	
Butter	1 lb	450 g	57%	
<i>Yield:</i>	<i>4 lb 1 oz</i>	<i>1855 g</i>	<i>234%</i>	

Per 1 ounce:
Calories, 110; Protein, 2 g; Fat, 7 g (57% cal.); Cholesterol, 20 mg; Carbohydrates, 10 g; Fiber, 0 g; Sodium, 160 mg.

Mixing:
Straight dough method.
Scald milk, cool to lukewarm, and dissolve yeast. Add remaining ingredients except last 1 lb (450 g) butter. Mix into a smooth dough. Do not overmix.

Fermentation:
1 hour at 80°F (27°C).
Punch down, spread out on flat pan, and rest in retarder 30 minutes. Roll in last amount of butter and give 3 three-folds (see Figure 30.3). Rest in retarder overnight.

Makeup:
See Figure 30.20 on page 929.

Proofing:
80°F (27°C). Egg wash after proofing.

Baking:
400°F (200°C).

Rolling-in Procedure for Danish and Croissant Dough

The rolling-in procedure has two parts.

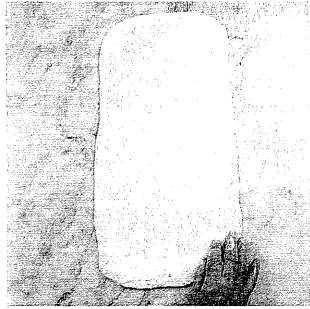
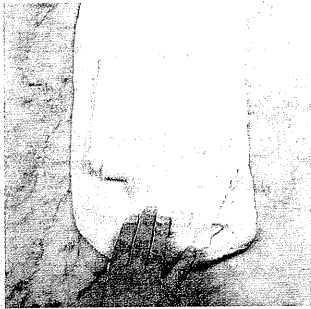
1. Enclosing the fat in the dough.

In the method illustrated in Figure 30.3, the fat is spotted on two-thirds of the dough and the dough is folded in thirds like a business letter. This results in five layers: three layers of dough and two layers of fat.

2. Rolling out and folding the dough to increase the number of layers.

In these doughs, we use a *simple fold*, or *three-fold*, which means that we fold the dough in thirds. Each complete rolling and folding step is called a *turn*. We give the dough three turns, creating over 100 layers of dough and fat.

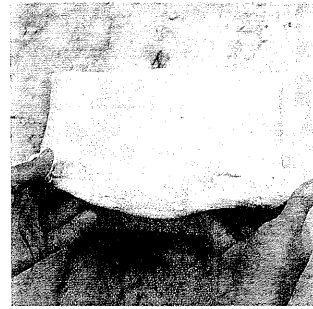
Figure 30.3 Rolling-in procedure for Danish and croissant dough.



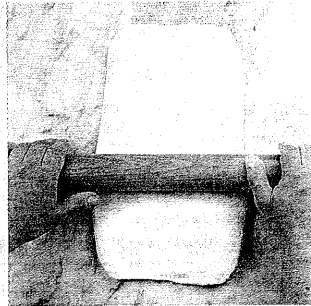
(a, b) Roll the dough into a rectangle about 3 times as long as it is wide and $\frac{1}{2}$ to $\frac{3}{4}$ in. (1 to 2 cm) thick. Smear the butter over two-thirds of the length of the dough, leaving a margin at the edges.



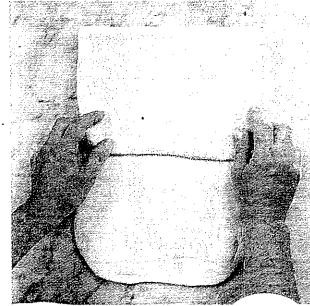
(c) Fold the unbuttered third over the center third.



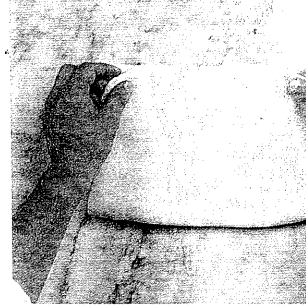
(d) Fold the remaining third on top. Rest the dough in the retarder (under refrigeration) for 20 to 30 minutes to allow the gluten to relax.



(e) Place the dough on the bench at right angles to its position in step (d). Take this step before each rolling-out of the dough so the gluten is stretched in all directions, not just lengthwise. Roll the dough into a rectangle.



(f) Fold again into thirds by first folding the top third over the center. Be sure to brush off excess dusting flour from between the folds.



(g) Fold over the remaining third. You have now completed the first turn or fold. Incorporating the butter doesn't count as a turn. Press one finger in the dough near the end to make one indentation. This indicates "1 turn" to anyone who may have to take up where you left off, or to you if you have several batches going. Refrigerate the dough for 20 to 30 minutes to relax the gluten. Repeat the above rolling and folding procedures for a second and third turn, resting the dough between turns. Mark the number of turns in the dough with two or three fingers. After the third turn, rest the dough in the retarder for several hours or overnight. Cover it with plastic film to prevent crusting. The dough is then ready for makeup.

In Chapter 31, you will learn an even more complex rolling-in procedure used for puff pastry, which is leavened only by steam, not by yeast. This procedure produces over 1,000 layers!

Figure 30.4 Rounding small rolls.



(a) Holding the palm of the hand fairly flat, roll the dough in a tight circle on the workbench. Do not use too much flour for dusting, as the dough must stick to the bench a little for the technique to work.

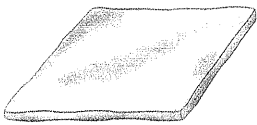


(b) As the ball of dough takes on a round shape, gradually cup your hand.

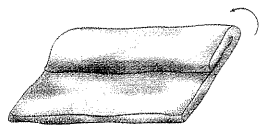


(c) The finished ball of dough should have a smooth surface, except for a slight pucker on the bottom.

Figure 30.5 Making club rolls.



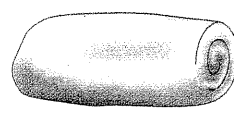
(a) Flatten the piece of dough roughly into a rectangle.



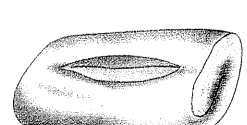
(b) Begin to roll the dough by folding over the back edge of the rectangle. Press the seam firmly with your fingertips.



(c) Continue to roll the dough, always pressing the seam firmly after each turn. As you roll the dough, the front edge will appear to shrink. Stretch the front corners as shown by the arrows to keep the width uniform.



(d) When the roll is finished, seal the seam well so that you have a tight roll.



(e) Dock the proofed roll with a single slash to give the baked roll this appearance.

MAKEUP TECHNIQUES

The object of yeast dough makeup techniques is to shape the dough into rolls or loaves that bake properly and have an attractive appearance. When you shape a roll or loaf correctly, you stretch the gluten strands on the surface into a kind of smooth skin. This tight gluten surface holds the item in shape. This is especially important for loaves and rolls that are baked freestanding, not in pans.

Units that are not made up correctly develop irregular shapes and splits and may flatten out on the pan.

Following are a few of the many makeup techniques for yeast doughs.

HARD ROLLS AND BREADS

Round Rolls

1. Scale the dough as indicated in the recipes, usually 1 pound (450 g) per dozen.
2. Round each unit as shown in Figure 30.4.
3. Place rolls 2 inches (5 cm) apart on sheet pans sprinkled with cornmeal.

Round Loaves

1. Flatten the rounded, benched dough into a circle. Fold the four sides over the center, then round again.
2. Place on sheet pans sprinkled with cornmeal.

Club Rolls

1. Make up as shown in Figure 30.5.
2. Place 2 inches (5 cm) apart on sheet pans sprinkled with cornmeal.

Crescent Rolls

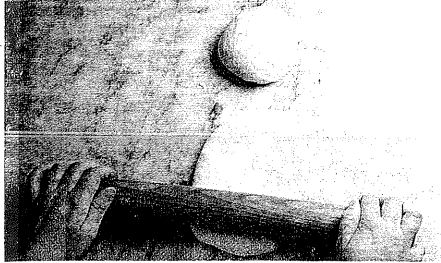
1. Scale dough into 20-ounce (600-g) units.
2. After rounding and benching, flatten the dough and roll it out into a circle 12 inches (30 cm) across.
3. With a pastry wheel, cut the dough circle into 12 equal wedges or triangles. (Alternative method: For large quantities of dough, roll it out into a rectangle and cut like croissant dough. See Figure 30.19 on p. 929.)
4. Roll the triangles into crescents using the same technique as for croissants (see Figure 30.19 on p. 929).

Note: If using soft roll dough, brush the dough with butter before cutting it into triangles. Do not use any fat with hard roll doughs.

French-Type Loaves

1. Scale the dough into units weighing 12 to 18 ounces (350 to 500 g).
2. Make up as shown in Figure 30.6.

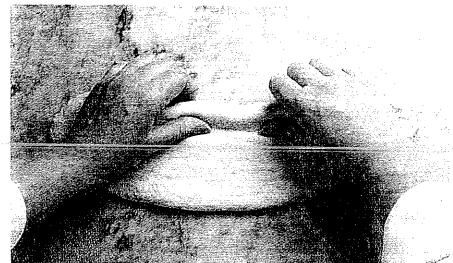
Figure 30.6
Making French-type loaves.



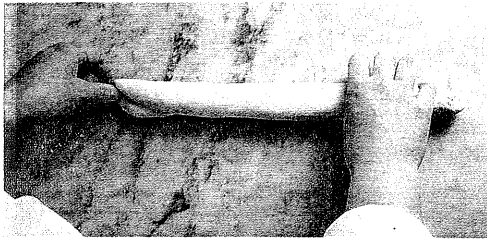
(a) Flatten the rounded, relaxed dough with your hands or with a rolling pin.



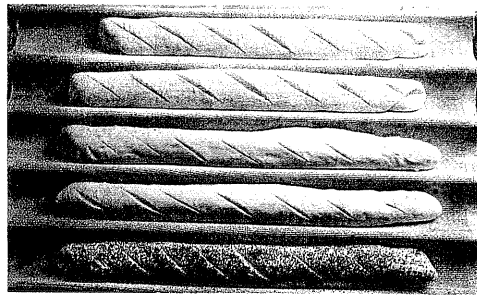
(b) Stretch the oval with the hands to lengthen it.



(c) Roll the dough tightly.



(d) Seal the seam well. If a longer, thinner loaf is required, relax the rolled units again for a few minutes. Flatten them with your palms and stretch the dough lightly to increase its length. Once again, roll tightly and seal the seam. Roll the loaf on the bench under your palms to make it even and to stretch it to the desired shape and length.



(e) Place the dough seam-side down on pans dusted with cornmeal. Proofing the loaves on special trough-shaped pans maintains their shape. Proof. Wash with water. Slash with diagonal cuts or with one lengthwise cut; this can be done before or after proofing.

SOFT ROLL DOUGHS

Tied or Knotted Rolls

1. Scale dough to 16 to 20 ounces (450 to 600 g) per dozen.
2. With the palm of the hand, roll each unit on the workbench into a strip or rope of dough.
3. Tie rolls as shown:
 - Single-knot rolls: Figure 30.7
 - Double-knot rolls: Figure 30.8
 - Braided rolls: Figure 30.9
 - Figure-eight rolls: Figure 30.10
4. Place 2 inches (5 cm) apart on greased baking sheets.
5. Egg wash after proofing.

Figure 30.7 Tying a single-knot roll

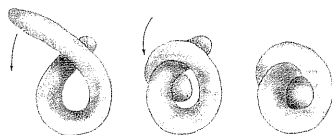


Figure 30.8
Tying a double-knot roll

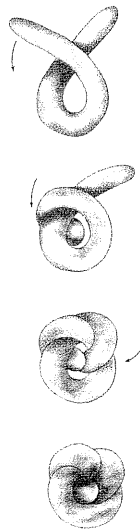


Figure 30.9
Tying a braided roll

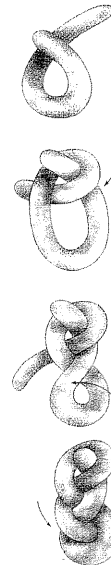
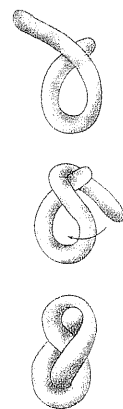


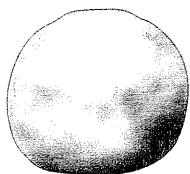
Figure 30.10
Tying a figure-eight roll



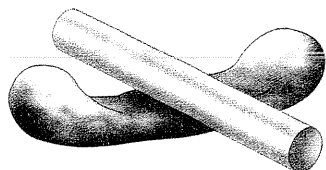
Pan Rolls

1. Scale dough to 16 to 20 ounces (450 to 600 g) per dozen.
2. Make up as for round hard rolls.
3. Place on greased pans 1/2 inch (1 cm) apart.

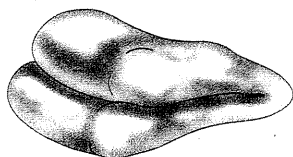
Figure 30.11
Parker House rolls.



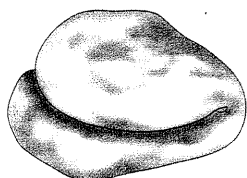
(a) Round the scaled piece of dough.



(b) Flatten the center of the dough with a thin rolling pin as shown.



(c) Fold the dough over and press down on the folded edge to make a crease.



(d) The baked roll has this shape.

Parker House Rolls

1. Scale dough to 16 to 20 ounces (450 to 600 g) per dozen.
2. Make up as shown in Figure 30.11.
3. Place on greased baking sheet ½ inch (1 cm) apart.

Cloverleaf Rolls

1. Scale dough to 16 to 20 ounces (450 to 600 g) per dozen.
2. Make up and pan as shown in Figure 30.12.

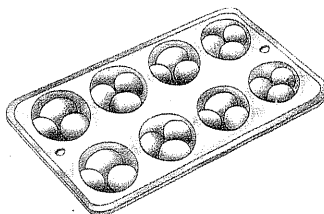
Butterflake Rolls

Make up as shown in Figure 30.13.

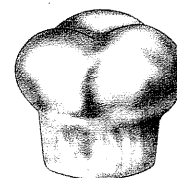
PAN LOAVES

Shaping dough into loaves to be baked in loaf pans is illustrated in Figure 30.14.

Figure 30.12
Cloverleaf rolls.

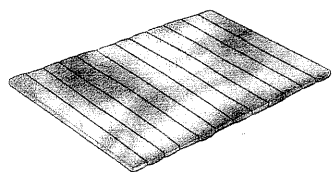


(a) Divide each piece of dough into 3 equal parts. Shape into balls. Place 3 balls in the bottom of each greased muffin tin.

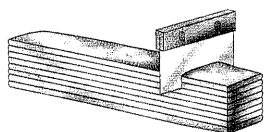


(b) The baked roll has this appearance.

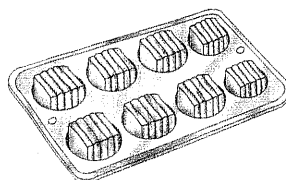
Figure 30.13
Butterflake rolls.



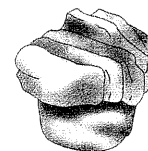
(a) Roll the dough into a thin rectangle. Brush with melted butter. Cut into strips 1 in. (2.5 cm) wide.



(b) Stack 6 strips. Cut into pieces 1½ in. (3.5 cm) long.



(c) Place the pieces on end in greased muffin tins. Proof.



(d) The baked rolls have this appearance.

Figure 30.14
Pan loaves.



(a) Start with the rounded, benched dough. Flatten it with the palms of the hands.



(b) Stretch it into a long rectangle.



(c, d) Fold into thirds.

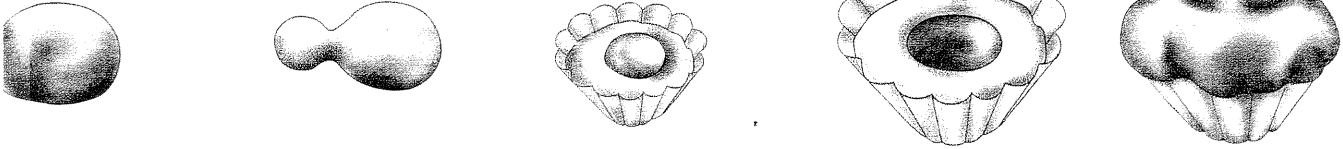


(e) Roll the dough into a tight roll of the same length as the pan it is to be baked in. Seal the seam well and place the dough seam side down in the greased pan.

BRIOCHE

Brioche dough may be made into many shapes. The traditional shape is shown in Figure 30.15.

Figure 30.15 Making brioche.



- (a) For a small brioche, roll the dough into a round piece.
- (b) Using the edge of your hand, pinch off about one-fourth of the dough without detaching it. Roll the dough on the bench so that both parts are round.
- (c) Place the dough in the tin, large end first. With your fingertips, press the small ball into the larger one as shown.
- (d) For large brioche, separate the two parts of the dough. Place the large ball in the tin and make a hole in the center. Form the smaller ball into a pear shape and fit it into the hole.
- (e) A baked large brioche.

SWEET DOUGH PRODUCTS

Note: Many sweet dough products may be glazed with Clear Glaze (p. 922) and/or iced with Flat Icing (p. 956) after baking. Flat icing is drizzled over the cooled products without covering them completely.

Cinnamon Rolls

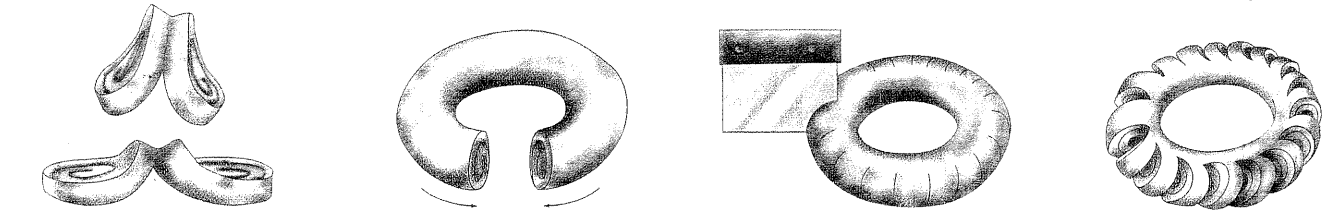
1. Scale dough into 20-ounce (600-g) units. On a floured board, roll each piece of dough into a rectangle measuring 9 x 12 inches and about 1/4 inch thick (23 x 30 x 1/2 cm).
2. Brush with butter and sprinkle with 2 ounces (60 g) cinnamon sugar.
3. Roll up like a jelly roll 12 inches (30 cm) long, as shown in the illustration.
4. Cut into 1-inch (2 1/2-cm) rolls.
5. Place cut side down in greased muffin tins or on greased sheet pans. One full-size pan, 18 x 26 inches (46 x 66 cm), holds 48 rolls placed 6 by 8.

For variations on the basic cinnamon roll shape, see Figure 30.16.

Figure 30.16 The filled dough roll is the starting point for a variety of sweet dough and Danish products.



- (a) Roll the dough into a rectangle. Brush with butter and sprinkle with cinnamon sugar, or spread with desired filling.
- (b) Roll up like a jelly roll.
- (c) For cinnamon rolls and similar products, cut off pieces 1 in. (2.5 cm) in length.
- (d) For combs or bear claws, make the roll thinner and cut it into longer pieces. Flatten slightly and cut partway through each piece in 3 to 6 places as shown. Leave straight or bend into a curve to open the cuts.



- (e) For figure-eight cinnamon rolls, cut the rolls almost through as shown. Open them and lay them flat on the baking sheet.
- (f) To make a wreath-shaped coffee cake, join the ends of the dough roll to make a circle.
- (g) Cut partway through the dough at 1-in. (2.5-cm) intervals as shown.
- (h) Twist each segment outward to open the cuts.

Cinnamon Raisin Rolls

Prepare like cinnamon rolls, but add 2 ounces (60 g) raisins to the filling.

Caramel Rolls

1. Prepare like cinnamon rolls.
2. Before panning, spread the bottoms of the pans or muffin tins with the following mixture. Use about 1 ounce (30 g) of the mixture per roll.

2 lb (1 kg) brown sugar

8 oz (250 g) corn syrup

10 oz (300 g) butter

4 oz (125 mL) water

Cream the sugar, corn syrup, and butter. Beat in the water.

Quantities given are enough for 1 sheet pan of 48 rolls.

Caramel Nut Rolls or Pecan Rolls

Prepare like caramel rolls, but sprinkle the sugar-butter mixture in the pans with chopped nuts or pecan halves before placing the rolls in the pans.

Wreath Coffee Cake

1. Make a filled dough roll as for cinnamon rolls, but do not cut it into separate pieces. Other fillings, such as prune or date, may be used instead of butter and cinnamon sugar.
2. Shape the roll into a circle as shown in Figure 30.16f-h. Place on a greased baking sheet. Cut and shape as shown in the illustration.
3. Egg wash after proofing.

Filled Coffee Cake

1. Scale dough into 12-oz (350-g) units.
2. Roll each unit into a rectangle measuring 9 x 18 inches (23 x 46 cm).
3. Spread half of each rectangle with desired filling, using about 6 ounces (175 g) filling.
4. Fold the unspread half over the spread half to make a 9-inch (23-cm) square.
5. Place in greased 9-inch (23-cm) square pan.
6. Sprinkle with Streusel Topping (p. 922), about 4 ounces (125 g) per pan.
7. Proof and bake.

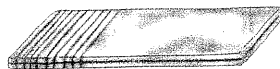
Figure 30.17
Spiral Danish rolls.



(a) Roll the dough into a rectangle 16 in. (40 cm) wide and less than ¼ in. (0.5 cm) thick. (The length of the rectangle depends on the quantity of dough.) Brush the dough with melted butter. Sprinkle half of it with cinnamon sugar as shown.



(b) Fold the unsugared half over the sugared half. You now have a rectangle 8 in. (20 cm) wide. Roll the dough gently with a rolling pin to press the layers together.



(c) Cut the dough into strips ½ in. (1 cm) wide.



(d) Place a strip crosswise in front of you on the bench.



(e) With the palms of your hands on the ends of the strip, roll one end toward you and the other away from you so that the strip twists. Stretch the strip slightly as you twist it.



(f) Curl the strip into a spiral shape on the baking sheet. Tuck the end underneath and pinch it against the roll to seal it in place. If desired, press a hollow in the center of the roll and place a spoonful of filling (such as a fruit filling) in the center.

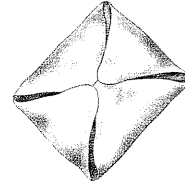
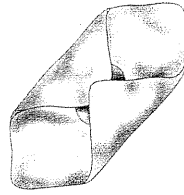
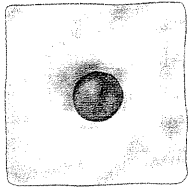
ROLLED-IN DOUGH PRODUCTS

Danish Rolls and Coffee Cakes

Most of the techniques given in the previous section for sweet dough products may be used for Danish pastry.

Two additional methods are illustrated in Figures 30.17 and 30.18.

Figure 30.18 Danish pockets.



(a) Roll the dough to less than 1/4 in. (0.5 cm) thick and cut into 5-in. (13-cm) squares. Place desired filling on the center of each square. Brush the corners lightly with water—this helps them seal when pressed together.

(b) Fold two opposite corners over the center. Press down firmly to seal them. (If desired, rolls may be left in this shape.)

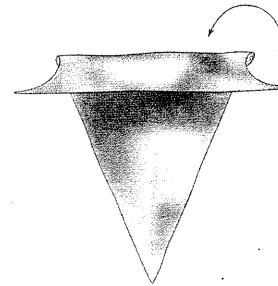
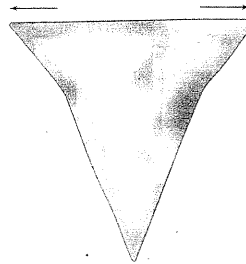
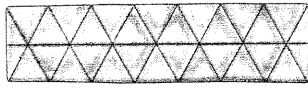
(c) Fold the other two corners over the center and again press them firmly together.

Baked Danish dough products are frequently glazed with Clear Glaze (p. 922) and/or iced with Flat Icing (p. 956).

Croissants

The method for making up croissants is illustrated in Figure 30.19.

Figure 30.19 Making croissants.

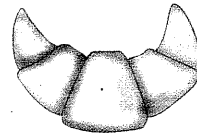
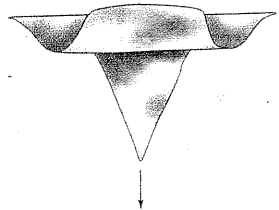


(a) Roll the dough into a rectangle 10 in. (26 cm) wide and about 1/8 in. (3 mm) thick. (The length depends on the amount of dough used.)

(b) Cut into triangles as shown. Special roller cutters are available that do this quickly.

(c) Place a triangle on the bench in front of you. Stretch the back corners outward slightly, as shown by the arrows.

(d) Begin to roll the dough toward the point.



(e) Stretch the point of the triangle slightly as you roll it.

(f) Finish rolling the dough.

(g) Bend the roll into a crescent shape. The point of the triangle must be toward the inside of the crescent and tucked under the roll so that it won't pop up during baking.

TERMS FOR REVIEW

lean dough
rolled-in dough
straight dough method

modified straight dough method
sponge method

fermentation
young and old doughs
punching

proofing
oven spring

QUESTIONS FOR DISCUSSION

1. What are the three major purposes of mixing yeast doughs?
2. Explain the difference in procedure between the straight dough method and the sponge method. How is the straight dough method sometimes modified for sweet doughs, and why is this necessary?
3. What are the 12 steps in the production of yeast products? Explain each briefly.
4. Judging from what you know about fermentation of doughs, do you think it might be necessary for bakers to modify procedures from winter to summer? How?
5. As you know, butter is very hard when cold and melts easily at warm temperatures. What precautions do you think are necessary when using butter as the rolling-in fat for Danish pastry?