

CREATIVE BAKING

Mrs. Klatt

Foods 30

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Theory
Booklet



Crust Basics

Techniques and advice for creating the best crusts.

WHAT MAKES A GREAT PIECRUST? In a word: butter—even better, really good butter. Sure, lard or shortening produces a tender, flaky crust, but they can't compete with butter's flavor. Creamy, rich European-style butter is especially good. It has a higher fat content (and less water) than most American butters, so it's tastier and more supple to work with.

The good news is that a butter crust can be just as flaky as one made with lard if you make it the old-fashioned way—by hand, rubbing cold chunks of butter between your fingertips and into the flour. No pastry blender, no mixer, no food processor. The technique on pp. 8-10 allows you to monitor the size of the butter pieces in the flour and creates flakes, rather than lumps, that remain in the dough when you roll it. As the crust bakes, the butter melts, creating steam pockets that leave behind a flaky texture. It's a classic method and one well worth bringing back.

the pie baker's tip sheet



- 1. Cold butter** For flaky piecrust, it's important to start with very cold butter, so that it doesn't melt while you work it into the flour. When this happens, butter becomes too thoroughly mixed with the flour, resulting in a mealy, crumbly crust rather than a flaky one. Freeze butter briefly if you have warm hands, live in a warm climate, or are making a very large batch of pie dough. It's also a good idea to chill the bowl and even the flour when making pie in warm weather.
- 2. Just enough water** For a tender piecrust, don't add too much water. Water contributes to the development of gluten proteins. If you add more than necessary, the resulting crust may still be flaky, but it will be tough rather than tender. For these reasons, trust your fingertips over your eyes: The dough should hold together when pressed between your fingers, although it will still look pretty shaggy.
- 3. Easy rolling** Take the time before chilling the dough to form an even, circular disk with clean, smooth edges. This will make rolling out the dough much easier because the edges are less likely to crack.
- 4. Crisp crust** Bake filled pies on a preheated, rimmed baking sheet and use a lightweight metal pie dish. Both will help set the crust quickly, preventing it from getting soggy. Baking on a sheet is also handy for catching bubbling juices.


ALL-BUTTER PIECRUST


Yields one 9-inch piecrust

- 6 oz. (1½ cups) unbleached all-purpose flour
- 1 tsp. granulated sugar
- ¾ tsp. table salt
- ¼ lb. (½ cup) cold unsalted butter, preferably European style, cut into ¼-inch pieces
- 3 to 4 Tbs. ice water

This pie dough can be made ahead and refrigerated overnight or frozen (before or after rolling) for up to 3 months. Simply transfer the dough to the refrigerator the night before you plan to make pie, and it will be ready to go.

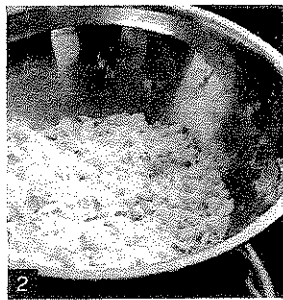
To make the dough: Put the flour, sugar, and salt in a medium bowl and stir with a rubber spatula or a fork to combine. Add the butter to the bowl. Rub the cold chunks of butter between your fingertips, smearing the butter into the flour  to create small (roughly ¼-inch) flakes of fat .


Drizzle 3 Tbs. ice water over the flour mixture. Stir with the spatula or fork, adding 1 Tbs. more water if necessary, until the mixture forms a shaggy dough that's moist enough to hold together when pressed between your fingers .

With well-floured hands, gently gather and press the dough together, and then form it into a disk with smooth edges . Wrap the dough in plastic wrap and chill for at least 1 hour, but preferably 2 to 4 hours, before rolling.


To roll the dough: Let the chilled dough sit at room temperature to soften slightly—it should be cold and firm but not rock hard. Depending on how long the dough was chilled, this could take 5 to 20 minutes. When ready to roll, lightly flour the countertop or other surface (a pastry cloth, silicone rolling mat, or parchment on a counter also works great) and position the rolling pin in the center of the dough disk. Roll away


make the dough




from you toward 12 o'clock, easing the pressure as you near the edge to keep the edge from becoming too thin. Return to the center and roll toward 6 o'clock. Repeat toward 3 and then 9 o'clock, always easing the pressure at the edges and picking up the pin rather than rolling it back to the center .

Continue to "roll around the clock," aiming for different "times" on each pass until the dough is 13 to 14 inches in diameter and about $\frac{1}{8}$ inch thick. Try to use as few passes of the rolling pin as possible. After every few passes, check that the dough isn't sticking by lifting it with a bench knife (also called a dough scraper). Reflour only as needed—excess flour makes a drier, tougher crust. Each time you lift the dough, give it a quarter turn to help even out the thickness.

To line the pie plate: Gently transfer the dough to a 9-inch pie plate, preferably metal, by folding it in half and unfolding it into the plate. Don't stretch the dough as you line the pan, or it will spring back when baked. Gently lift the outer edges of the dough to give you enough slack to line the sides of the pan without stretching the dough .

Trim the overhanging dough to 1 inch from the edge of the pan. Roll the dough under itself into a cylinder that rests on the edge of the pan .

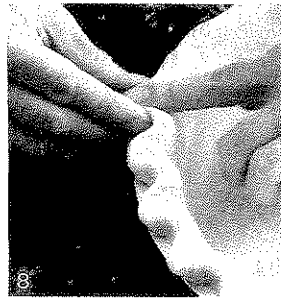
To crimp the edge, have one hand on the inside of the edge, and one hand on the outside, and use the index finger of the inside hand to push the dough between the thumb and index finger of the outside hand to form a U or V shape . Repeat around the edge of the pie plate, creating

continued on next page

roll the dough



line the pie plate



blind-baking basics

Blind-baking means baking an empty piecrust before adding a filling. Here's what you need to know:

WHY BLIND BAKE?

Blind-baking gives the crust a head start, allowing it to firm up before the filling is added. This prevents the crust from getting soggy. Dried beans or pie weights help it keep its shape. Without them, the crust will rise and puff on the bottom or slide down the sides under the weight of the crimped edge.

HOW LONG?

In recipes where the filling doesn't need further cooking or cooks for a short period of time, such as cream pies or fruit tarts, the crust is usually blind-baked until cooked through and golden brown. But in recipes where the pie cooks for a while after adding the filling, it's best to blind-bake the crust just part way so it won't overcook as it continues to bake with the filling.

REMEMBER TO CHILL

Don't be tempted to skip chilling a crust before blind baking it. Piecrusts baked right after shaping are warm enough for the butter to melt quickly in the oven, causing the edge to sink or even slump over the edge of the pie pan.

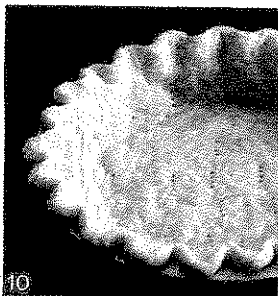
a crimped edge whose individual flutes are about an inch apart. (Turn to p. 18 for more ideas on decorative edges.) As you're going along, if you notice that the edge is not perfectly symmetrical and that the amount of dough you'll have to crimp seems sparse in places, take a bit of trimmed scrap, wet it with a drop or two of water, and attach it to the sparse area by pressing it firmly into place.

Prick the sides and bottom of the crust all over with a fork. Refrigerate until firm, about 1 hour or overnight. This will relax the dough and help prevent the edges from caving in.

To blind-bake the crust: Position a rack in the center of the oven and heat the oven to 425°F. Line the chilled piecrust with foil and fill it with dried beans or pie weights **9**. Bake for 15 minutes; remove the foil and the beans or weights. Reduce the oven temperature to 375°F.

Bake until the bottom looks dry but isn't quite done and the edges are light golden, 5 to 7 minutes more **10**. Let cool on a rack while you prepare the pies on p. 29 and 52.

blind-bake the crust



CLASSIC PIECRUST

Yields enough dough for one 9-inch double-crust pie

- 11¼ oz. (2½ cups) all-purpose flour**
- 1 Tbs. granulated sugar**
- ½ tsp. table salt**
- ¼ lb. (½ cup) cold unsalted butter, cut into ¼-inch pieces**
- ¼ cup cold vegetable shortening, cut into ¼-inch pieces**
- 2 tsp. fresh lemon juice**
- 3 oz. (¼ cup plus 2 Tbs.) very cold water**

This dough is soft and easy to roll out, but still turns out tender and flaky. If you're working ahead, it keeps in the freezer for 3 months.

Put the flour, sugar, and salt in a food processor fitted with the steel blade; pulse briefly to combine. Add the butter and shortening; pulse just until coarse crumbs form, about 30 seconds. Add the lemon juice and water. Pulse just until moist crumbs form. Turn the dough onto a work surface and gently shape it into two equal disks about 4 or 5 inches in diameter. Wrap in plastic and refrigerate at least 1 hour or up to 1 day.

FOR A ONE-CRUST PIE

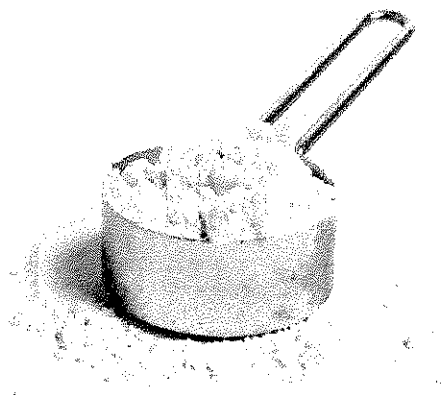
Roll one disk of dough between two large pieces of lightly floured parchment. Roll into a 14-inch-diameter round that's ¼ inch thick. Remove the top sheet of parchment. Gently roll the dough around the pin and position the pin over the pie pan. Unroll, gently easing the dough into the pan, gently but firmly pressing the dough against the sides and bottom, taking care not to pull or stretch. With scissors, trim the edge of the dough, leaving a ¾-inch margin from the outer edge of the pan. Tuck this dough under to shape a high edge crust that rests on top of the rim. Pinch-crimp as in the photo at far right.

FOR BLIND-BAKING

Follow the steps for a one-crust pie (above). Freeze the crust for at least 30 minutes. Heat the oven to 425°F. Line the frozen crust with a large piece of foil, fill with pie weights (or dried beans or rice), and bake for 12 minutes. Remove the foil and weights and continue baking the shell until golden, about another 8 minutes, checking for bubbles (push them down gently with the back of a spoon).

FOR A DOUBLE-CRUST PIE

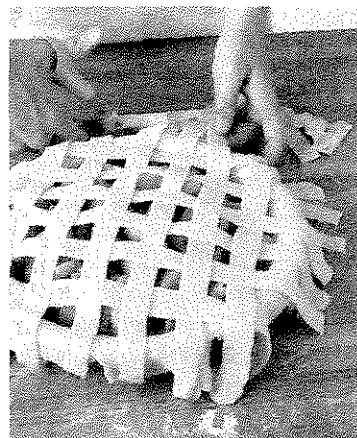
Roll out one disk of dough as for a one-crust pie and line a 9-inch pie pan, leaving the excess hanging over the side. Cover loosely with plastic while you roll out the other disk between parchment. Load the filling into the shell. Brush the edge of the bottom crust with water. Roll the top crust around the pin and position it over the pie. Gently unroll, centering the dough over the filling. Press the edges together and, with scissors,



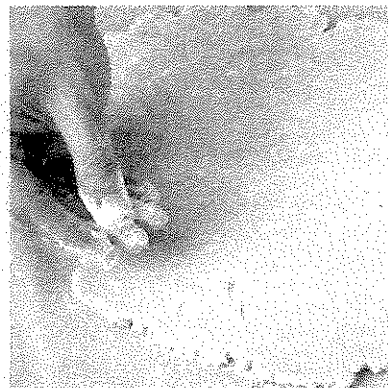
trim both crusts so they're $\frac{1}{2}$ inch larger than the outer edge of the pie pan. Tuck this dough under to shape a high edge crust that rests on top of the rim. Pinch-crimp as in the photo below. With a paring knife, slash two or three vent holes in the top crust and bake, following the recipe directions.

FOR A LATTICE CRUST

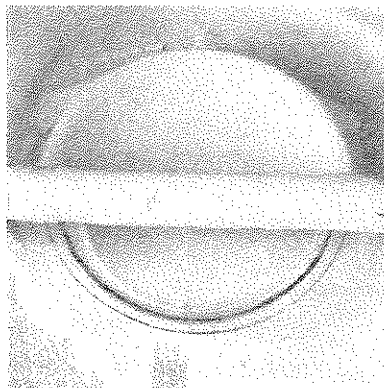
Roll out one disk of dough as for a one-crust pie and line a 9-inch pie pan, leaving the excess hanging over the sides. Cover loosely with plastic while you roll out the other disk between parchment into a rectangle that's slightly larger than 14x9 inches. Remove the top sheet of parchment. Trim the dough to an exact 14x9-inch rectangle. Cut 12 strips that are 14 inches long and $\frac{3}{4}$ inch wide. If the dough gets soft, slide the parchment and dough onto a baking sheet and chill briefly before continuing. On a parchment-lined baking sheet, arrange 6 strips horizontally, setting them $\frac{3}{4}$ inch apart; these will be the "bottom" strips. Set the rest aside on a separate piece of parchment; these will be the "top" strips. Make the lattice following the photos on p. 19. If the dough warms up as you work, chill it briefly in the refrigerator.



roll, transfer, and crimp the crust



Lift the paper every few passes of the rolling pin to check for sticking. Dust with a little flour if needed.



Roll the dough around the pin to transfer it easily to the pie pan.



Fluted, not fussy. To pinch-crimp, press toward the center of the pie with the thumb and index finger of one hand and press out, right between them, with the index finger of the other hand.

HOW TO ROLL OUT PERFECT PIECRUST

When it comes to rolling out pies, experience counts for a lot, but good techniques are crucial, too. Here are some pointers for rolling out even rounds of dough.

Start with dough at the right temperature.

If it's too warm and soft, it will stick to the rolling pin and work surface, forcing you to add more flour. Dough that's too cold and hard resists rolling and cracks. Press the dough lightly before rolling—your fingertips should leave an imprint but shouldn't easily sink into the dough.

Go easy on the flour.

Even dough that's at the right temperature needs a little extra flour to keep it from sticking, but don't use more than you really need—the more flour you work into the dough as you roll it, the drier and tougher the crust will be.

Try an alternative rolling surface.

Beyond the usual lightly floured countertop, other options for rolling surfaces include a pastry cloth, a silicone rolling mat, and sheets of parchment, waxed paper, or plastic wrap.

Use the fewest possible passes of the rolling pin.

Overworked dough equals tough crust, so the less you have to work it during rolling, the better.

Roll around the clock.

Start with the rolling pin in the center of your dough disk. Roll toward 12 o'clock, easing up on the pressure as you near the edge. Pick up the pin and return it to center. Roll toward 6 o'clock. Repeat this motion in different directions, always picking up the pin rather than rolling it back to center, until the dough is the right width and thickness.

Turn the dough and check often for sticking. After each round of the clock, run a bench knife under the dough to make sure it's not sticking, and re-flour the surface if necessary. When you do this, give the dough a quarter turn; an occasional turn helps average it out for a more even thickness.

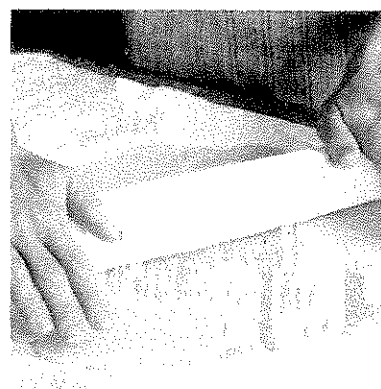
advice for handling piecrust



For simpler rolling, try placing a pastry cloth beneath the dough.



To prevent sticking, periodically pass a bench knife under the dough.

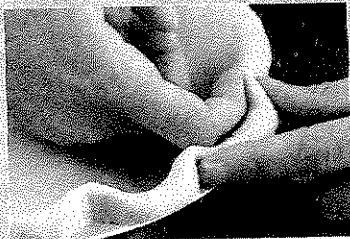


It's best to start at the center and roll outward in each direction.

ADVANCED CRIMPING

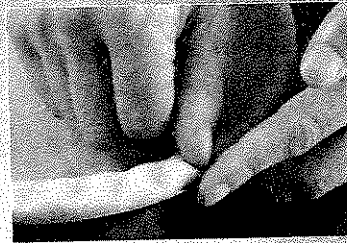
Crimping a piecrust is not only decorative but also useful: It helps to hold up the edge of a single-crust pie. Once you get the hang of a basic crimped crust, you can be more creative. Here are three fun ways to crimp a crust.

Scalloped edge



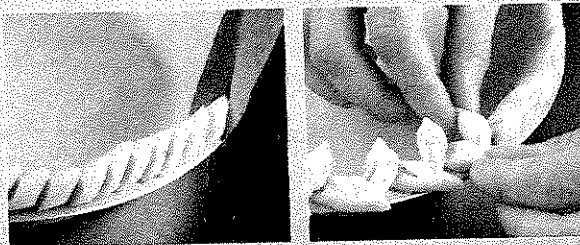
Form a curve with your index finger on the inside edge of the dough and press the edge into gentle curves. Be sure that the scalloped edge is resting firmly on the edge of the pan and not hanging beyond it.

Rope edge



Using the side of your thumb or the flat edge of a table knife, press gently into the dough edge at a 45-degree angle (diagonal to the pan). Repeat every $\frac{1}{2}$ to $\frac{3}{4}$ inch or so until you've come full circle. Be sure not to press all the way down to the pie plate, or you may sever the dough.

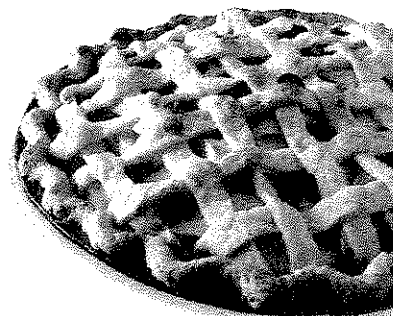
Wheat edge



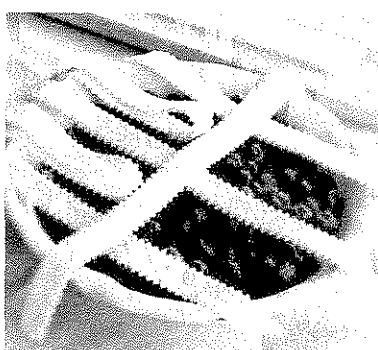
Holding a pair of scissors at a 45-degree angle, snip the edge at $\frac{1}{2}$ - to $\frac{3}{4}$ -inch intervals. With your fingertips, pull each segment in alternating directions toward the inside and outside of the pie. Pinch the tips of each segment into points and smooth each segment as needed.

HOW TO WEAVE A LATTICE TOP

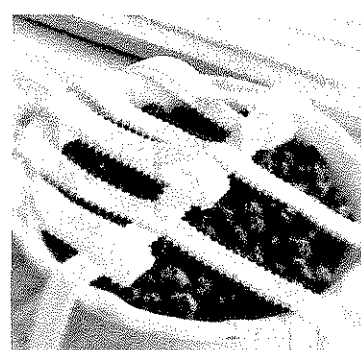
For the pies on p. 56 and p. 77 you'll want to finish with a lovely lattice top. Below are the steps to creating this simple, but impressive detail. If you'd like, you can create a sweet and sparkly lattice top—just brush the placed strips with a little bit of milk and sprinkle with turbinado sugar before baking.



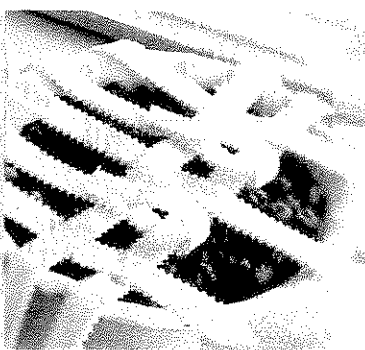
Arrange five strips of dough evenly over the filling, starting with a long strip for the center. Gently fold back every other strip (the second and fourth) to a little past the center.



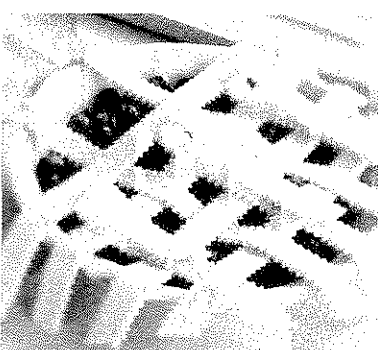
Choose another long strip of dough, hold it perpendicular to the other strips, and set it across the center of the pie.



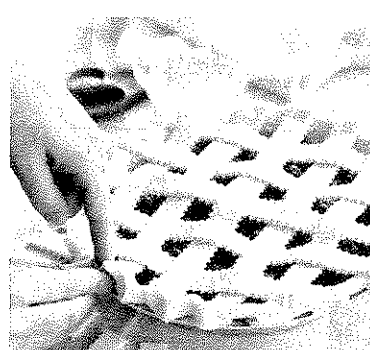
Unfold the two folded strips so they lie flat on top of the perpendicular strip. Now fold back the strips that weren't folded back last time (the first, third, and fifth ones).



Lay a strip of dough about $\frac{3}{4}$ inch away from the last one. Unfold the three folded strips. Fold back the original two strips, set a strip of dough $\frac{3}{4}$ inch from the last one, and unfold the two strips.



Repeat on the other side with the two remaining strips: fold back alternating strips, lay a strip of dough on top, and unfold. Remember to alternate the strips that are folded back to create a woven effect.



Trim the strips to a $\frac{1}{2}$ -inch overhang. Moisten the underside of each one with water and tuck it under the bottom crust, pressing to make it adhere. Crimp or flute the edges, if you like. Chill and bake the pie as directed in the recipe.

The Whys of Pies

Five simple solutions for common pie-baking challenges.

OFTEN WHEN BAKERS SERVE A HOMEMADE PIE, it seems to have a curious effect on guests. First, delight. But then, despair, as people begin to detail their pie woes, from custard pies that crack as they cool to crusts that are tough or too crumbly. When a pie lets you down, it's very disappointing, especially at Thanksgiving. To spare you that grief, we'd like to explain how to avoid five common problems. Once you know your way around them, you'll be well on your way to pie success.

CHALLENGE 1: A tough crust

This ubiquitous problem results from two common mistakes: adding too much liquid and overworking the dough. The moment liquid—in this case, water—meets flour, a strong, elastic protein known as gluten begins to form. And as you mix and knead the dough, you make the protein stronger and your crust tougher.

Piecrust recipes are designed to keep gluten at bay; they use very little liquid and call for minimal mixing. Unfortunately, recipes can't tell you exactly how much water to add or exactly how long to work the dough—you need to get a feel for these things. But as a general rule, less is best. Mix in liquid very sparingly, using just enough for the dough to hold together when you squeeze it, and handle the dough as little as possible.

CHALLENGE 2: A crust that shrinks in the oven

If this happens, chances are your dough hasn't had enough rest. Blame gluten, that stretchy protein that forms when wheat flour meets water. Even though pie dough contains very little water, some gluten does develop when you mix the dough, and this elastic protein makes the dough rebound when you roll and shape it. But if you let the dough rest in the fridge for several hours after you've mixed it, you'll give the gluten strands time to relax and adjust to their new shape, so the dough won't resist when you try to roll it out. Then, more important, the dough needs to rest again after you've rolled it out and shaped it into a piecrust. With all this rest, the dough will shrink less when you bake it.

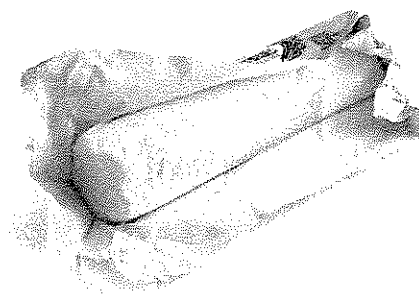
CHALLENGE 3: Pumpkin pie that cracks as it cools

Pumpkin pie filling is a type of egg custard. Custards thicken during baking as the egg proteins coagulate, tightening and shrinking. In the process, the liquid custard mixture transforms into a thick, moist, silken solid (or so we hope). Cracks form in a custard when the egg proteins overcoagulate—i.e., overcook. The trouble is, a pumpkin pie or other custard might not look overcooked when you pull it from the oven, but then as it cools, it cracks. What's going on? Residual heat continues to cook the filling even after you've set your pie on the cooling rack, so the proteins continue to shorten, tearing open cracks in your perfect custard. To minimize cracking, it's a good idea to remove pumpkin pie from the oven as soon as the custard filling sets but before it's firm; the filling should jiggle a bit in the center when the pan is nudged.



cold butter test

You've probably read more than once that you should start with cold butter when making a buttery piecrust. Why? Because you don't want the butter to melt while you're working it into the flour. With the next butter crust you make, try squeezing the mixture after you've cut the butter into the flour. Pinch off a little bit of the flour and butter and mold it into a square. Check your fingers—if they're greasy, the butter is too warm and your mixture needs 15 minutes of chilling time. If your fingers are dry, go ahead and proceed with the recipe.



CHALLENGE 4: A crust that isn't flaky

After deliciousness, flakiness is probably the quality most admired in a piecrust. So how do you get all those crisp, flaky layers?

First, start with very cold fat and let it remain in fairly large pieces—pea-size to ½-inch bits—as you blend it into the flour. If the fat starts to feel soft, stop what you're doing and freeze the ingredients for about five minutes to let the fat solidify again. You don't want it to start melting or mixing with the flour too much, or your pastry will turn out crumbly rather than flaky.

To create flakiness, the fat needs to remain solid so that when you roll out the dough, the fat can flatten into thin, firm sheets sandwiched between layers of dough. Then, when the pie goes into the hot oven, the sheets of cold, solid fat will hold their shape long enough for the dough layers on either side of the fat to set, creating thin layers of crust. As the fat melts, steam will puff the dough layers apart, creating the crust's flaky texture.

CHALLENGE 5: A too-crumbly crust

There's certainly a place in the world for tender pastry that crumbles like a shortbread cookie—just not in a pie dish. If your crust is so crumbly that it falls apart, the fat was probably too soft and too thoroughly blended into the flour. When flour and fat are blended, the fat essentially forms a water-proof barrier around the flour particles; thus, gluten can't form when you add liquid and mix the dough.

Though it's good to minimize gluten to prevent toughness, you don't want to eliminate it altogether, because without those strong structure-building proteins, a crust has trouble holding its shape. So, how do you get a crust that's tender but not too crumbly? A little compromise is all it takes. It's fine to work a little of the cold fat into the flour for tenderness, but you also need to make sure that plenty of the fat remains in large, firm pieces.

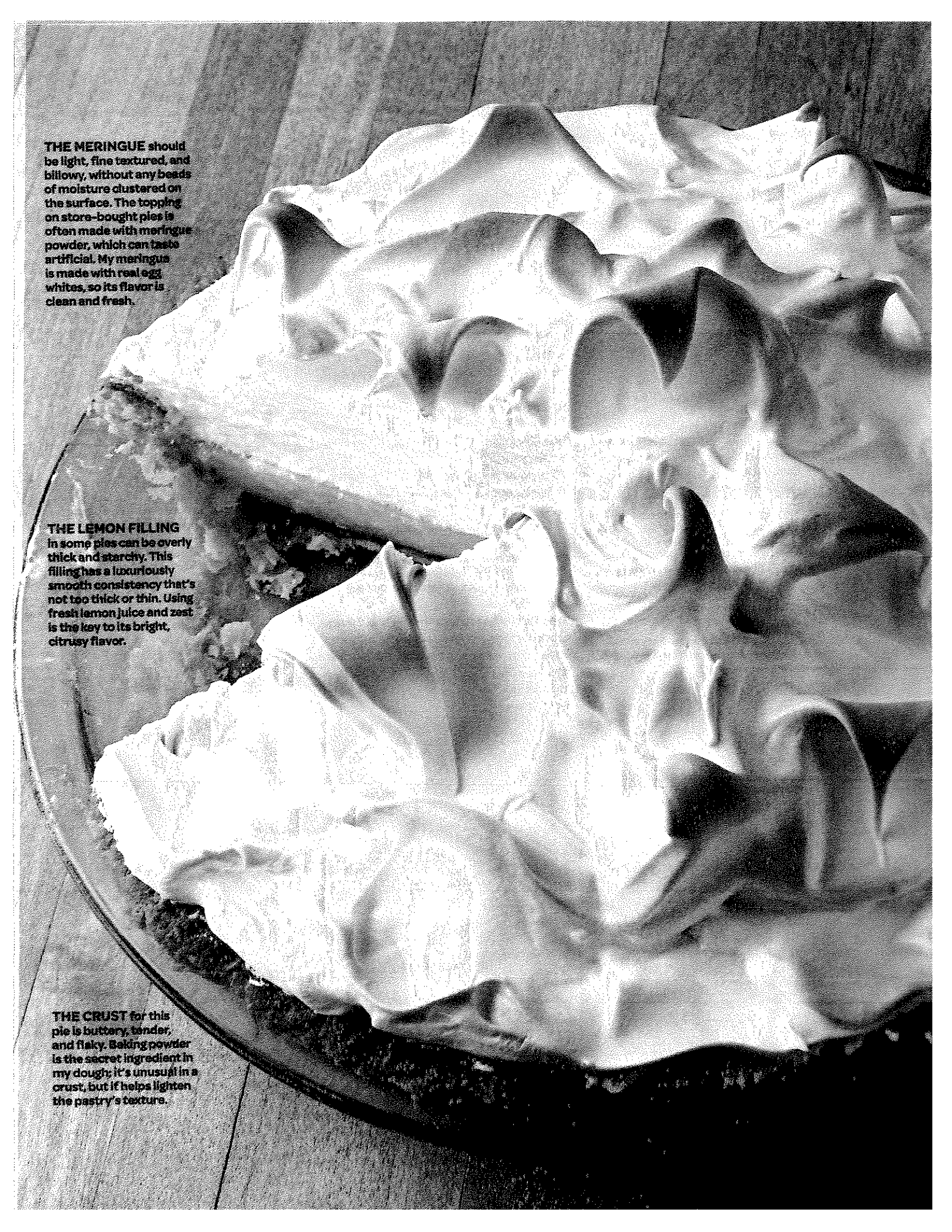


Lemon Meringue Pie

Baking expert **Carole Walter** reveals the secrets to getting this classic dessert just right.

HOMEMADE LEMON MERINGUE PIE can't be beat, but it *can* be tricky to make. In fact, I get more questions about this pie than about any other recipe in my baking repertoire. The most common ones are about soggy bottom crusts, fillings that don't set, and beads of moisture forming on top of the meringue, also known as "weeping." These issues come up because lemon

meringue pie is extremely temperamental. It doesn't like humidity. It doesn't like to be overmixed, undercooked, or overcooked. But I'm pleased to say that over the years I've worked out most of the kinks in this delicious dessert, and in my step-by-step recipe, I'll pass all I've learned on to you.



THE MERINGUE should be light, fine textured, and billowy, without any beads of moisture clustered on the surface. The topping on store-bought pies is often made with meringue powder, which can taste artificial. My meringue is made with real egg whites, so its flavor is clean and fresh.

THE LEMON FILLING in some pies can be overly thick and starchy. This filling has a luxuriously smooth consistency that's not too thick or thin. Using fresh lemon juice and zest is the key to its bright, citrusy flavor.

THE CRUST for this pie is buttery, tender, and flaky. Baking powder is the secret ingredient in my dough; it's unusual in a crust, but it helps lighten the pastry's texture.

lemon meringue pie

Humidity will affect the texture of the meringue, so don't make this pie on a rainy day.

Serves 8 to 10

FOR THE CRUST

- 6 oz. (1¼ cups plus 2 Tbs.) unsifted all-purpose flour
- 2 tsp. granulated sugar
- ¼ tsp. table salt
- ¼ tsp. baking powder
- 3 oz. (6 Tbs.) chilled unsalted butter, cut into ½-inch cubes; more for the plate
- 2 oz. (4 Tbs.) frozen vegetable shortening, cut into ½-inch pieces
- 2 to 4 Tbs. ice water

FOR THE FILLING

- 1¼ cups granulated sugar
- 2 oz. (¼ cup plus 2 Tbs.) cornstarch
- ¼ tsp. table salt
- 5 large egg yolks
- 1 oz. (2 Tbs.) unsalted butter, cut into 4 pieces and softened
- 1½ Tbs. finely grated and minced lemon zest, plus ½ cup strained juice (from 3 medium lemons)
- 1 oz. (3 Tbs.) finely ground gingersnap cookies

FOR THE MERINGUE

- 5 large egg whites, at room temperature
- ¾ cup superfine sugar
- ¾ tsp. pure vanilla extract
- ½ tsp. cream of tartar

MAKE THE DOUGH

Combine the flour, sugar, salt, and baking powder in a zip-top bag; shake to mix and chill in the freezer for about 30 minutes. Add half of the butter and shortening to the bag and toss to coat with flour. Transfer the mixture to a food processor. Give it four 1-second pulses and then process for 3 to 4 seconds. Add the remaining butter and shortening and pulse again 4 times; then process until the mixture has the texture of coarse meal with some pea-size pieces of butter and shortening, 3 to 4 seconds.

Empty the mixture into a large bowl. Drizzle 1 Tbs. of the ice water around the side of the bowl and use a fork to push the flour mixture from the edges towards the center; repeat with a second tablespoon of ice water. Clusters of dough will form and become larger with each addition of water. After adding 2 Tbs. water, test the dough by pressing a small handful of clus-

ters together and then breaking them apart. If they feel dry and crumble easily, add more water, 1 Tbs. at a time (up to 4 Tbs. total), until the clusters feel moist and bind together. **Gather and press the dough into a ball,** flatten it into a 4- to 5-inch disk, and dust with flour. Wrap with plastic and refrigerate until cold but still pliable enough to leave a slight imprint when pressed with a fingertip, about 1 hour. (The dough will keep for up to 3 days in the refrigerator or 3 months in the freezer. Thaw frozen dough in the refrigerator for at least 12 hours; then let stand at room temperature until pliable.)

SHAPE THE CRUST

Butter the bottom, sides, and rim of a 9-inch glass pie plate.

On a floured pastry cloth or lightly floured work surface, roll the dough with a floured rolling pin (preferably covered with a rolling pin sleeve) into a 13-inch circle that's about ¼ inch thick. Roll the dough around the rolling pin, unroll it over the pie plate, and gently fit it into the plate without stretching. Trim the dough with scissors to a ¾- to 1-inch overhang. (Reserve the dough scraps, without pressing them into a ball, in case you need to patch the shell later.) Roll the overhang under itself and flatten it slightly to cover the rim of the pie plate completely. Chill for at least 30 minutes before baking.

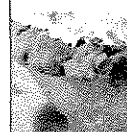
BAKE THE CRUST

Position a rack in the lower third of the oven and heat the oven to 425°F. Using a fork, lightly prick the bottom and sides of the crust at 1-inch intervals (without going all the way through the crust). Fit a buttered 12-inch piece of aluminum foil over the crust, buttered side down. Fill ½ to ¾ inch deep with dried beans or pie weights—do not overfill.

Bake the crust on a rimmed baking sheet until the edges begin to brown, 15 to 18 minutes. Let stand on a cooling rack for about 30 seconds, and then carefully remove the foil and beans. If the foil doesn't release easily, don't force it—bake for a few minutes more and try again. If any holes or tears appear, patch them by placing small pieces of the reserved dough scraps over the holes, let stand for a few seconds, and then gently tap them with your

MY SECRETS TO...

The Crust



For rolling the dough, I use a pastry cloth and a rolling pin sleeve (see page 95 for a source).

While not mandatory, they prevent the overuse of flour and keep the dough from sticking to the rolling surface and pin. Also, be sure to flour the rolling surface and pin, not the top of the dough, so you don't incorporate too much flour into the dough.

I always butter the pie plate. This anchors the dough, promotes browning, and helps maintain the crust's shape.

And finally, I sprinkle gingersnap crumbs over the bottom crust before filling it. The crumbs act as a moisture shield, protecting the bottom from sogginess, and complementing the lemon flavor without being obvious. (I used to tell my children the crumbs were the secret ingredient that made my pie so good.)

MY SECRETS TO...

The Filling

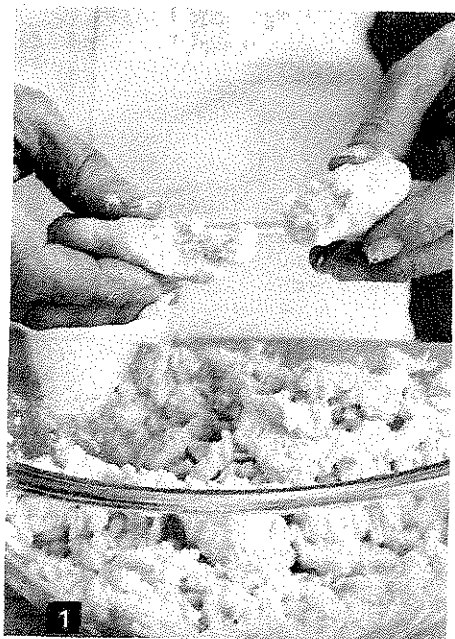


Before you start, check your cornstarch. If it contains small clumps, it contains moisture.

This will affect its thickening power, so don't use it; instead, buy a new box.

It's also important to use a heavy-duty, nonreactive pot. This helps prevent the filling from scorching and lets it maintain its lemony color. A reactive aluminum pot will turn the filling gray.

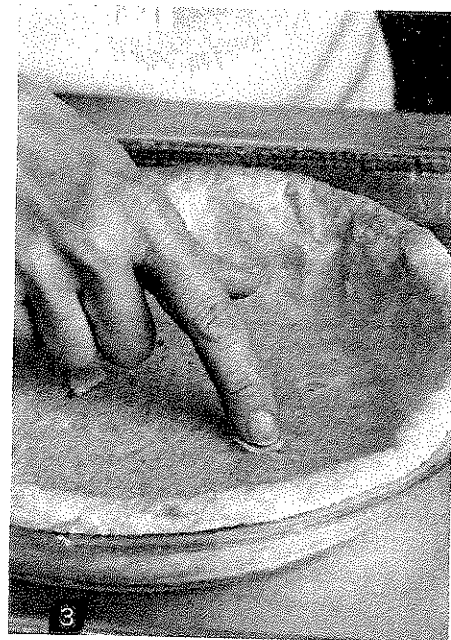
Finally, when making the filling, start by whisking just a little of the cold water into the dry ingredients until smooth. Then blend in the remaining liquid; this will keep lumps from forming.



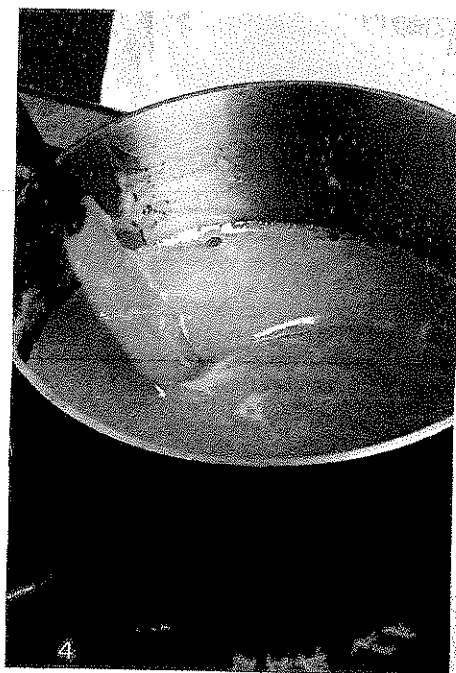
Test the moisture level. When making the dough, check that it has enough water by taking a handful of the crumbs and pressing them together. Then try to break them apart. If they feel moist and bind together, the dough is ready.



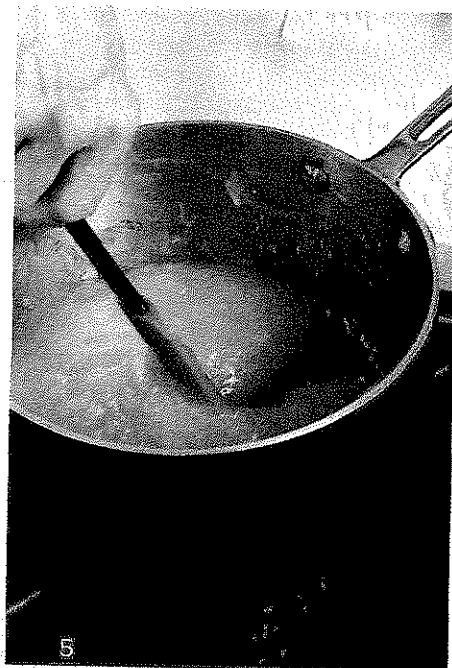
Roll from the center out. To maintain an even thickness as the dough is rolled out, apply the most pressure with the rolling pin in the middle of the dough, and relax the pressure when you approach the edges. Also, give the dough a quarter turn periodically as you roll.



Be sure the baked pie shell has no cracks or holes. If it does, the filling can seep through and create moisture under the crust. If necessary, patch the crust by putting a small piece of raw dough over the hole and tapping it so it adheres.



Stir slowly so you can see when the boiling starts. If you're stirring too fast, you won't see the first bubbles appear.



After adding the yolks, pull the filling from the sides to the center of the pot to avoid scorching around the edge.



The filling is ready to come off the stove when it's very thick and especially lumpy at the bottom of the pot. It will thin and smooth out when the butter and lemon juice are added.

finger until they adhere. Reduce the oven temperature to 375°F and continue to bake the crust until deep golden-brown all over, 16 to 20 minutes more. Cool on a rack for at least 15 minutes. (Keep the oven on.)

MAKE THE FILLING

In a heavy-duty 3-quart nonreactive saucepan, whisk together (preferably with a tapered sauce whisk; see Test Kitchen, page 85) the sugar, cornstarch, and salt. Whisk in ¼ cup cold water until the mixture is smooth. Then whisk in another 1¼ cups cold water until combined. Cook over medium to medium-low heat, stirring occasionally at first with a heatproof spatula, then continuously as the mixture comes to a boil (you will see a few large bubbles pop), turns glossy, and thickens into a semi-translucent gel, 4 to 6 minutes. Whisk briefly to smooth out the mixture; then reduce the heat to low and cook 1 minute more, gently pulling the mixture from the sides to the center with the spatula to prevent scorching. Remove the pot from the heat.

In a medium bowl, lightly whisk the egg yolks.

Gently whisk about ½ cup of the gel into the egg yolks; repeat with another ½ cup gel. Pour the yolk mixture into the pot and gently whisk to combine. Over low to medium-low heat, cook the filling, gently pulling it from the sides to the center with the spatula, until it begins to boil (you will see a few large bubbles pop), 4 to 6 minutes. Continue to cook, stirring as before, until the mixture thickens further (don't worry if it clumps at this point), about 1 minute more. Remove the pot from the heat and dot the filling with the butter, pushing it under the surface; let stand for a minute to melt. Gently whisk in the lemon juice and zest until smooth.

Sprinkle the ground gingersnaps over the bottom of the pie crust; pour the filling over the crumbs and smooth the top with the spatula. Let cool to room temperature before making the meringue, at least 30 minutes.

MAKE THE MERINGUE

Bring ½ inch of water to a simmer in a pot that will hold the bowl of a stand mixer without letting it touch the water. Reduce the heat to low. Put the egg whites in the bowl off the heat and whisk (preferably with a balloon whisk; see Test Kitchen, p. 85) until frothy. Add the sugar about 2 Tbs. at a time, whisking for about 5 seconds between additions.

Put the bowl over the pot and whisk gently but constantly (you are not trying to incorporate air, but to keep the whites moving so they don't cook) until the whites are very warm to the touch (they will register 115°F to 120°F on an instant-read thermometer) and the sugar is thoroughly dissolved (lift a ribbon of whites from the bowl with the whisk and rub the whites between your fingertips—you should feel no grit), 2 to 4 minutes.

Add the vanilla and cream of tartar, transfer the bowl to the stand mixer, fit with the whisk attachment, and beat, gradually increasing the speed from low to medium high over the course of 1 minute, until the egg whites form thick, glossy medium-firm peaks (they should hold their shape but curl at their tips), 3 to 5 minutes total.

Using a soup spoon, drop some of the meringue in mounds in a ring around the edge of the filling. With the back of the spoon, gently spread the dollops of meringue over the entire surface of the filling and all the way to the crust's edge. It is essential that all of the filling be completely covered by the meringue, without any air pockets, and that the edge of the meringue be anchored to the rim of the crust. Mound the remaining meringue on top and press with the back of the spoon to eliminate any air pockets without deflating the meringue. Make decorative peaks with the back of the spoon.

Bake the pie until the meringue peaks brown, 5 to 7 minutes. Cool the pie on a rack away from drafts to prevent the meringue from shrinking. Let stand at least 1 hour before serving.

To slice, rinse a sharp, thin-bladed knife in hot water and shake off the excess before making each cut. Lemon meringue pie is best eaten the day it's made, but leftovers will keep, loosely tented with aluminum foil and refrigerated, for up to 3 days. Never cover with plastic wrap—too much condensation will form under the wrapping. Do not freeze.

Carole Walter is a master baker, cooking instructor, and the author of four cookbooks, including the award-winning Great Pies and Tarts.



Watch a video on getting Lemon Meringue Pie just right at FineCooking.com/extras.

MY SECRETS TO...

The Meringue



I use a Swiss meringue, which is light but firm and fine textured (see Test Kitchen, page 85, for more

on the types of meringue). It's made by heating sugar and egg whites over hot water and then whipping them to billowy peaks. Be sure your beater and bowl are perfectly clean and that there are no traces of yolk in your egg whites; any fat will keep the beaten whites from fully increasing in volume.

To prevent weeping, it's important that the sugar be fully dissolved in the egg whites. I use superfine sugar here because it dissolves more quickly and easily than granulated sugar. Also, cream of tartar gives the meringue extra stability.

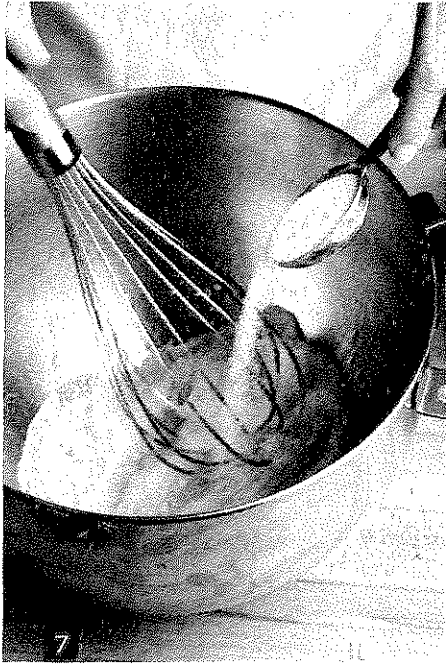
MY SECRETS TO...

The Assembly



When putting this pie together, it's crucial that the meringue be at about the same temperature as the filling.

Many lemon meringue pie recipes call for the filling to be hot so it cooks the bottom of the meringue and helps it adhere. However, I've found that this creates steam between the meringue and the filling, which can break down the filling and cause the pie to fall apart. In this recipe, both the meringue and the filling should be at room temperature.



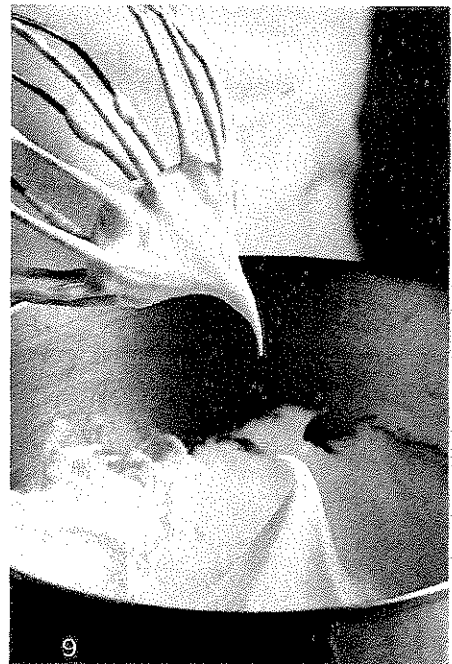
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Gradually add the sugar to the egg whites. This helps the sugar dissolve thoroughly, which makes the meringue more stable so it doesn't weep later.



8

Heat the egg whites to further dissolve the sugar. Rub a ribbon of whites between your fingers; if all of the sugar has dissolved, it will feel smooth, not gritty.



9

Beat the egg whites to thick, glossy, medium-firm peaks that curl at their tips when the whisk is lifted. Don't overbeat or the mixture will become grainy.



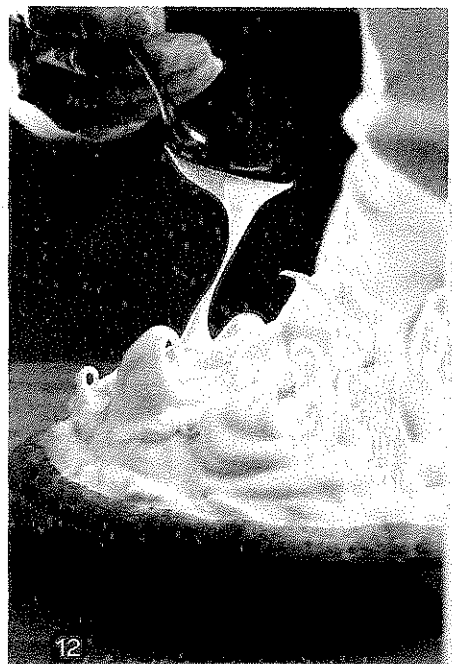
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After mounding some of the meringue around the edges of the pie, cover the filling completely with it. Any air holes or empty spaces will promote weeping.



11

Using the back of the spoon, pull the meringue to the rim of the crust, making sure it adheres to the crust all the way around so it doesn't shrink away as it cools after baking.



12

Use a dip-and-lift motion to spike the meringue. This creates elegant, curling peaks for a beautiful presentation.

Sugars

Carbohydrates are sugar-base molecules made up of carbon, hydrogen and oxygen molecules. Complex carbohydrates are chains of sugar molecules and are found in plant foods everywhere. Starch is a polymer or long string of glucose molecules, just as a protein is a long string of amino acids. Starch-containing plants are the universal staple foods. Carbohydrates include low caloric, low glycemic vegetables such as salad greens and plant fibers that have many health benefits.

Sugar has been blamed for all manner of health problems, often without justification. Many people who have sugar concerns are misinformed and confused about the role of sugar in the body. They cannot differentiate among different kinds of sugar. They have not learned that glucose runs every cell alive on planet earth. Glucose, like oxygen and water is essential to life!

Carbohydrate Monomers: Monosaccharide's

Monosaccharides are the simplest carbohydrate structure from which other more complex carbohydrates are built. Glucose, fructose and galactose are the simplest CHO molecules, known by their single ring structure.

Glucose

- Is the fuel of all living things, supplying energy to all living cells, both plant and animal.
- Occurs naturally in molasses, sweet fruits, grapes, berries and oranges, sweet corn and carrots.

Fructose

- Is the first cousin of glucose and is known as the fruit sugar
- Occurs in ripe fruit, honey and some vegetables

Galactose

- Simple sugar formed by the break down of lactose (sugar found in milk)
- Occurs in milk and milk products

Carbohydrate Diamers: Disaccharides

Disaccharides are made from two monosaccharide sugars (glucose, fructose or galactose) chemically bonded together.

Sucrose

- The sugar that is commonly called "sugar".
- Composed of glucose bonded to fructose.
- Occurs in white table sugar, brown sugars, syrup, molasses and honey.

Carbohydrate Dimers: Disaccharides cont'd

Lactose

- Composed of glucose bonded to galactose
- Found in milk NOT plants

Maltose

- Composed of two glucose units
- Found in malt products (starch) such as cereals and malt milk

Carbohydrate Polymers: Polysaccharides

Polysaccharides are a string of sugar molecules linked together to create a long chain.

Starch

- Is the most valuable polysaccharide.
- Starch is the best fuel, supplying sustained-release glucose.
- Occurs in grains, legumes, root vegetables, potatoes and rice.

Glycogen

- Animal starch stored in the liver and muscles as an energy reserve.
- Not found in food, it is formed in your body

Cellulose/Fiber

- Made from the cell wall of plants
- Digestible or indigestible, prevents colon cancer
- Occurs in the skin of fruits, vegetables and whole grains.

Fats and Oils

Fat—An Essential Nutrient

Why do you need fat?

- It is a concentrated source of energy.
- It promotes normal growth of cells and healthy skin.
- It cushions vital organs.
- It allows fat-soluble vitamins to travel through blood.

What are some health hazards of a high-fat diet?

- High blood pressure, some cancers, heart disease and heart attack, stroke, obesity.

How much fat should you eat?

- 10–15 percent of your daily calories should come from protein (meat and alternatives and milk and alternatives).
- 55–60 percent should come from carbohydrates (fruits and vegetables and grain products).
- 30 percent should come from fat.

TYPES AND SOURCES OF FAT

Saturated Fats

- Come from animals (e.g., milk and meat products).
- Most are solid at room temperature.
- Raise both LDL and HDL cholesterol.
- Are linked to higher risks of heart disease.

Palm and coconut oils are saturated fats, even though they come from plants (these oils are often found in convenience foods, such as cookies).

Monounsaturated Fats

- Are found in olive and canola oils, avocados, and nuts.
- Have been linked to heart health.
- Lower LDL and HDL cholesterol.
- Are linked to a lower risk of heart disease.

Try to limit the amount of fat consumed (even if it is polyunsaturated or monounsaturated) because it is a very concentrated source of energy and contains many calories.

Polyunsaturated Fats

- Come from plant sources (e.g., safflower and corn oils, some margarines, nuts and seeds, special eggs) and fatty fish (e.g., salmon and cod).
- Are liquid at room temperature.
- Are known to lower cholesterol levels and are considered “good” fats.

Trans Fats

- Are synthetic—a process turns vegetable oil into a solid or semi-solid.
- Include hydrogenated vegetable oils (e.g., shortening).
- Are found in some margarines, crackers, cookies, frozen fries, and convenience foods.
- Raise LDL cholesterol.
- Are linked to a higher risk of heart disease.

What is cholesterol?

- A white, waxy substance made in your body.
- Your body makes enough, so you don't need to get any more from the foods you eat.
- Is present in saturated fat only.
- Cholesterol builds up in arteries and slows the blood flow. This may lead to a blood clot that may cause a heart attack or stroke.

Cooking with Fats

Baking cakes, muffins and bread

- Adds richness and increases volume
- Creaming fat with sugar incorporated air
- Oils and melted fats are rarely used for cakes because little air can be incorporated into them

Baking biscuits and pastry

- Fats tenderize biscuits and pastry
- Fats remain in layers until heated, where they expand and produce the flaky texture

Deep Frying

- Use a covered deep fryer
- Don't fill past the indicated line to prevent boil over's
- Use salt NOT water to put out an oil fire...water just spreads the fire
- Fry small amounts of food to prevent spills and prevent the oil temperature from dropping.
- Keep oil temperature high to prevent oil from absorbing into the food which will make it greasy
- Drain fried foods on paper towel after they are cooked
- Use an oil with a high smoke point — the temperature to which it can be heated without smoking.
- Butter and margarine have low smoke points, so they aren't good for frying but work for light sautéing.
- The best oils for deep-frying and high temperatures are refined safflower and sunflower oils, peanut, safflower and soy oils.

Candy Making

Much like baking and pastry preparation, candy making is a precise culinary skill demanding an abundance of patience. There are tools to be used, measurements to be taken and rules to be followed. And, just when you think you have everything under control, even the weather becomes a consideration. But fear not. Though it may take years to work your way up to head chocolatier for Godiva, there are numerous recipes that can be followed with a degree of kitchen know-how, some basic utensils, the simplest of ingredients and some indispensable tips and tricks.

A Degree of Kitchen Know-How

If you can follow a recipe, you're halfway to becoming a confectioner. Although in culinary circles candy making may be considered an art to which one must aspire, the greatest successes are generally the result of basic kitchen knowledge and attention to detail. And remember patience is crucial, as sugary concoctions can change consistency in a matter of seconds.

The keys to successful candy making are:

- Thoroughly reading through and following your recipes
- Taking accurate measurements
- Having all ingredients at hand
- Ensuring timing is precise.

Some Basic Utensils

When stirring up sweets, you have three best friends: a sturdy saucepan, a wooden spoon and a candy thermometer. Most candy results from the tricky process of boiling or melting sugar; therefore a good-quality, medium-to-large-sized saucepan is a must. Choose one that holds at least three times the volume of ingredients, to prevent boil-over's. A wooden spoon prevents heat transfer, flavour contamination and sticking to candy or scratching your pots and pans. And, though not necessary, a candy thermometer reduces guesswork, particularly for beginners.

The Simplest of Ingredients

Sugar and butter are the two most essential ingredients in candy making. In its variety of forms, sugar is candy and it makes or breaks your recipe. Store it in airtight containers to avoid moisture and contamination. And, although acceptable in cooking or baking, butter should never be substituted in a candy recipe and should always be unsalted unless otherwise indicated. Ensuring correct measurements and using the highest quality ingredients will go a long way to candy-making success.

Tips and Tricks

Measure Out All Ingredients – because time is of the essence in the candy making process, ensure you measure out all ingredients before proceeding with your recipe. Boiling and melting sugar can be a precarious process and time is of the essence when you've got a boiling saucepan of syrup on the stove. If the correct measures of ingredients to be added are at hand, there is less risk of overcooking.

Check the Weather Report – this may sound a bit silly, but heat and humidity are huge determinants of cooking times. Ideally, candy should be made in a cool and dry environment, which promotes hardening and prevents crystals from forming.

The Right Temperature – when making candy, the key to success is boiling your syrup to the right degree. There are two ways of ensuring accuracy: the first is using a candy thermometer, and the second is performing the cold water candy test. Because candy temperatures can vary due to weather and other external conditions, the thermometer is handy as a guide, but should be used in concert with cold water testing.

To perform the cold-water candy test, a small amount (less than a teaspoonful) of syrup should be dropped from a wooden spoon into a container of very cold water (not ice water). The syrup should then be quickly manipulated between your fingers. The following list indicates the most common cooking texture stages for candy/sugar syrup when dropped into cold water:

Thread stage (215-235 degrees F): a liquid thread that will not form into a ball. This stage makes syrupy confections perfect for pouring or drizzling.

Soft ball stage (235-245 degrees F): a flexible, sticky ball that will flatten in your hand when removed from the water. Cooking to this stage makes pralines, fudge and other soft-textured candies.

Firm ball stage (245-249 degrees F): a ball that holds its shape and won't flatten when removed from the water and yet remains quite soft and flexible. Soft toffees and caramels are cooked to this stage.

Hard ball stage (250-264 degrees F): a hard ball that holds its shape when removed from the water and is slightly pliable. Rock candy, nougat and divinity are cooked to this stage.

Soft crack stage (270-290 degrees F): firm threads that are flexible and will bend without breaking when removed from the water. Candy canes and salt-water taffy are cooked to this stage.

Hard crack stage (300-310 degrees F): hard, brittle threads that break when bent. Hard toffees, lollipops and nut brittles are cooked to this stage.

Crystallization – this is one of the most frustrating characteristics of candy syrup during the cooking process. In order to prevent your smooth syrup from turning into a crystal-ridden glob, avoid stirring when it begins to boil, butter the sides of your pot (if the recipe includes butter), brush crystals down from the sides of the pot with a pastry brush dipped in hot water and avoid scraping the dregs from the pot when pouring your finished candy. If crystallization starts to happen, it's not a disaster. Simply add a small amount of water to your syrup and begin cooking again.

What happens when you heat a sugar solution?

When you add sugar to water, the sugar crystals dissolve and the sugar goes into solution. But you can't dissolve an infinite amount of sugar into a fixed volume of water. When as much sugar has been dissolved into a solution as possible, the solution is said to be **saturated**.

The saturation point is different at different temperatures. The higher the temperature, the more sugar that can be held in solution.

When you cook up a batch of candy, you cook sugar, water, and various other ingredients to extremely high temperatures. At these high temperatures, the sugar remains in solution, even though much of the water has boiled away. But when the candy is through cooking and begins to cool, there is more sugar in solution than is normally possible. The solution is said to be **supersaturated** with sugar.

Supersaturation is an unstable state. The sugar molecules will begin to crystallize back into a solid at the least provocation. Stirring or jostling of any kind can cause the sugar to begin crystallizing.

Why are crystals undesirable in some candy recipes—and how do you stop them from forming?

The fact that sugar solidifies into crystals is extremely important in candy making. There are basically two categories of candies; crystalline (candies which contain crystals in their finished form, such as fudge and fondant), and non-crystalline, (candies which do not contain crystals, such as lollipops, taffy, and caramels). Recipe ingredients and procedures for non-crystalline candies are specifically designed to prevent the formation of sugar crystals, because they give the resulting candy a grainy texture.

One way to prevent the crystallization of sucrose in candy is to make sure that there are other types of sugar—usually, fructose and glucose—to get in the way. Large crystals of sucrose have a harder time forming when molecules of fructose and glucose are around. Crystals form something like Legos locking together, except that instead of Lego pieces, there are molecules. If some of the molecules are a different size and shape, they won't fit together, and a crystal doesn't form.

A simple way to get other types of sugar into the mix is to "invert" the sucrose (the basic white sugar you know well) by adding an acid to the recipe. Acids such as lemon juice or cream of tartar cause sucrose to break up (or invert) into its two simpler components, fructose and glucose. Another way is to add a non-sucrose sugar, such as corn syrup, which is mainly glucose. Some lollipop recipes use as much as 50% corn syrup; this is to prevent sugar crystals from ruining the texture.

Fats in candy serve a similar purpose. Fatty ingredients such as butter help interfere with crystallization—again, by getting in the way of the sucrose molecules that are trying to lock together into crystals. Toffee owes its smooth texture and easy breakability to an absence of sugar crystals, thanks to a large amount of butter in the mix.

Phyllo Pastry

Anyone who's tried a piece of baklava can attest to the magical qualities that phyllo dough brings to a dish. This special dough, also known as fillo or filo, and sometimes confused with puff pastry, is most often used in the pastries and filled pies typical of Greek food. Whatever you call it, phyllo dough has a reputation for being both delicious and temperamental. While incredibly tasty, the thin and delicate nature of phyllo dough can scare off even seasoned cooks. Fortunately, with proper storage and handling, working with phyllo can be manageable and fun, with delectable results.

Buying and Storing Phyllo Dough

You're most likely to find phyllo dough in the frozen foods section of your local grocery store. Because it's a specialty ingredient, some smaller stores don't even carry it, so be sure to stock up before you plan a Greek food-fest. While you may be tempted to substitute puff pastry for phyllo dough, it's not a good idea because the two are noticeably different.

When you work with phyllo, advance preparation is key because you must allow it to thaw for a full 24 hours in the refrigerator before you can begin. Then allow the phyllo to come to room temperature before working with it, which helps ensure that the dough is pliable.

Thaw Your Dough!

Thanks to new refrigerated phyllo dough products, you don't have to wait for your dough to thaw. If you're working with frozen dough, however, follow these helpful tips for thawing it:

- Allow fillo to thaw in box at room temperature at least 5 hours.
- Do not open until all other ingredients are assembled and you are ready to work.
- Carefully unroll fillo sheets on a smooth, dry surface.
- Remove any fillo you don't need for your recipe, re-roll, wrap in plastic and set aside.

Be Prepared!

Before you open the package of phyllo, make sure you've done the following:

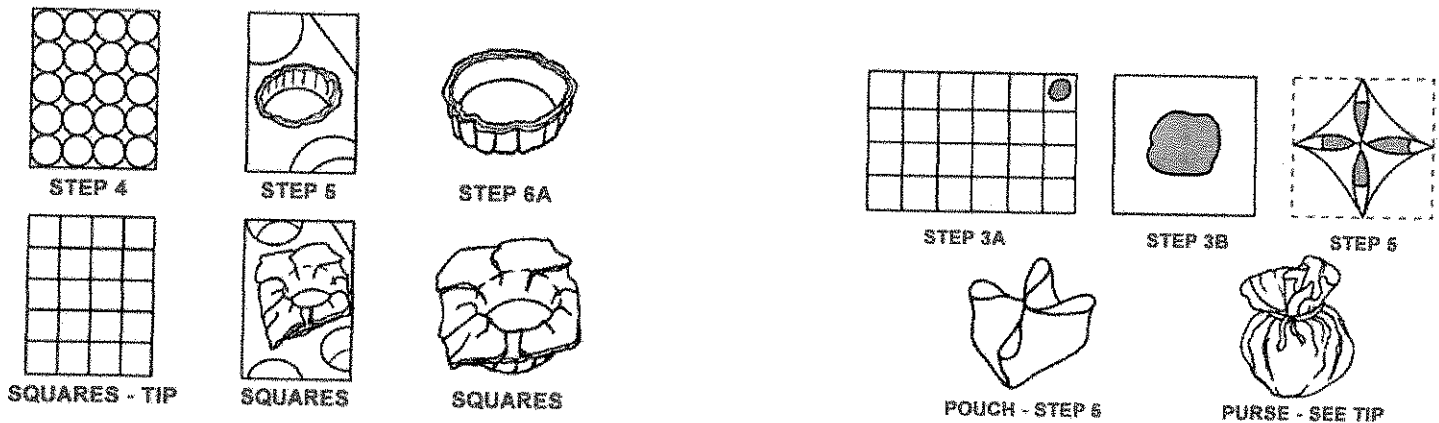
- Completed preparations for the pie or pastry filling.
- Melted butter or poured oil into a shallow bowl to brush each layer of dough (remember to brush from the center to edges).
- Readied the baking pan, pastry brush, and any other necessary tools.
- Cleaned a workspace where the phyllo leaves can be unwrapped.
- Prepared a piece of plastic wrap and moistened a dishtowel, which you'll use to cover the dough as you work to keep it from drying out and cracking.

Working With Phyllo

Immediately cover phyllo with plastic wrap, then a damp towel to prevent the sheets from drying out. Avoid leaving the sheets uncovered for more than one minute at a time. Because sheets of phyllo are delicate, don't be surprised if a few of them rip as you pull them off the stack.

Give It a Bit of Shape

Part of the fun of phyllo is its art. You can fold phyllo dough into a variety of different shapes, from cones and tubes to pouches to strudels. Check out the diagrams below for some ideas on how to fold phyllo.



The Zen of Phyllo Dough

Whatever shape or filling you choose, never forget that the number 1 rule of working with phyllo is patience. Work slowly (but not too slow-you don't want the sheets to dry out!) and carefully until you become more comfortable handling the dough. Take your time and remember, like any skill in the kitchen, practice makes perfect!

Greek Food and Beyond

Whether you're making a savory spinach pie, a light appetizer with goat cheese and olives, or a flaky, fruit-filled dessert, phyllo dough adds a special flavor and texture to your meal. Reading about phyllo can help you learn the basics, but the best way to master the art of cooking with this special dough is to try it yourself. Fortunately, with an ingredient this tasty, you should have no trouble finding taste-testers eager to sample the results.