

I was tempted to give up on strawberry pie altogether when our science editor suggested something so obvious I couldn't believe I hadn't thought of it before: If I couldn't get the effect I wanted from one thickener, why not try two? After all, combining thickeners to produce a particular effect is exactly what the processed food industry does. Pectin still seemed like my best bet, so I considered what I might use with it. Gelatin was out—it would only exacerbate pectin's springiness. The "alternative" starches I tried had too many issues, and I crossed them off the list as well. That left cornstarch. The more I thought about it, the better the idea seemed. Since cornstarch on its own produced a filling that was too loose and pectin produced a filling that was too firm, a combination of the two might actually do the trick. Excited, I headed back into the test kitchen. After some tinkering, I finally hit upon a formula that worked. With $\frac{3}{4}$ cup puree, 2 tablespoons cornstarch, and 1½ teaspoons pectin, I managed to produce just the right supple, lightly clingy glaze.

I knew the berry juices would leach out eventually (sugar extracts moisture), but that didn't worry me. A pie this irresistible would never sit around.

FRESH STRAWBERRY PIE

MAKES ONE 9-INCH PIE, SERVING 8 TO 10

NOTE: To account for any imperfect strawberries, the ingredient list calls for several more ounces of berries than will be used in the pie. If possible, seek out ripe, farmers' market-quality berries. Make certain that you use Sure-Jell engineered for low- or no-sugar recipes (packaged in a pink box) and not regular Sure-Jell (in a yellow box); otherwise, the glaze will not set properly. The pie is at its best after two or three hours of chilling; as it continues to chill, the glaze becomes softer and wetter, though the pie will taste just as good.

Filling

- 4 pints (about 3 pounds) fresh strawberries, gently rinsed and dried, hulled (see note)
- $\frac{3}{4}$ cup (5½ ounces) sugar
- 2 tablespoons cornstarch
- 1½ teaspoons Sure-Jell for low-sugar recipes (see note)
- Generous pinch table salt
- 1 tablespoon juice from 1 lemon
- Baked Pie Shell (recipe follows)

Whipped cream

- 1 cup cold heavy cream
- 1 tablespoon sugar

1. FOR THE FILLING: Select 6 ounces misshapen, underripe, or otherwise unattractive berries, halving those that are large; you should have about 1½ cups. In food processor, process berries to smooth puree, 20 to 30 seconds, scraping down bowl as needed. You should have about $\frac{3}{4}$ cup puree.

2. Whisk sugar, cornstarch, Sure-Jell, and salt in

medium saucepan. Stir in berry puree, making sure to scrape corners of pan. Cook over medium-high heat, stirring constantly with heat-proof rubber spatula, and bring to full boil. Boil, scraping bottom and sides of pan to prevent scorching, for 2 minutes to ensure that cornstarch is fully cooked (mixture will appear frothy when it first reaches boil, then will darken and thicken with further cooking). Transfer to large bowl and stir in lemon juice. Let cool to room temperature.

3. Meanwhile, pick over remaining berries and measure out 2 pounds of most attractive ones; halve only extra-large berries. Add berries to bowl with glaze and fold gently with rubber spatula until berries are evenly coated. Scoop berries into pie shell, piling into mound. If any cut sides face up on top, turn them face down. If necessary, rearrange berries so that holes are filled and mound looks attractive. Refrigerate pie until chilled, about 2 hours. Serve within 5 hours of chilling.

4. FOR THE WHIPPED CREAM: Just before serving, beat cream and sugar with electric mixer on low speed until small bubbles form, about 30 seconds. Increase speed to medium; continue beating until beaters leave trail, about 30 additional seconds. Increase speed to high; continue beating until cream is smooth, thick, and nearly doubled in volume and forms soft peaks, 30 to 60 seconds.

5. Cut pie into wedges. Serve with whipped cream.

BAKED PIE SHELL

MAKES ONE 9-INCH PIE SHELL

- 1¼ cups (6½ ounces) unbleached all-purpose flour, plus more for work surface
- ½ teaspoon table salt
- 1 tablespoon sugar
- 6 tablespoons (½ stick) cold unsalted butter, cut into ¼-inch slices
- ½ cup (about 1¾ ounces) chilled vegetable shortening, cut into 4 pieces
- 2 tablespoons vodka, cold
- 2 tablespoons cold water

1. Process $\frac{3}{4}$ cup flour, salt, and sugar together in food processor until combined, about two 1-second pulses. Add butter and shortening and process until homogeneous dough just starts to collect in uneven clumps, about 10 seconds (dough will resemble cottage cheese curds with some very small pieces of butter remaining, but there should be no uncoated flour). Scrape down sides and bottom of bowl with rubber spatula and redistribute dough evenly around processor blade. Add ½ cup flour and pulse until mixture is evenly distributed around bowl and mass

SCIENCE Doubling Up to Thicken Juicy Fruit

To create a filling with just enough sticking power to hold the berries together gently, we turned to a thickener more common in jam than pie—low-sugar pectin—and used it in combination with cornstarch. Both products work similarly: When combined with liquid, then heated and cooled, some of their molecules bond together, trapping water and creating a solid, jelly-like structure. But the strength and properties of the two structures differ. Amylose, one of two types of starch molecules in cornstarch, forms a weak structure that easily comes apart under the weight of heavy, juice-filled strawberries. Low-sugar pectin (which, unlike regular pectin, gels without added sugar and acid) contains bigger molecules that form a firmer structure held together more forcefully by calcium ions. Once created, this matrix resists coming apart.

When used independently, neither product resulted in a suitable pie filling, but together they yielded a glaze with just the right texture. —D.Y.



LOW-SUGAR
PECTIN



CORNSTARCH

of dough has been broken up, 4 to 6 quick pulses. Empty mixture into medium bowl.

2. Sprinkle vodka and water over mixture. With rubber spatula, use folding motion to mix, pressing down on dough until dough is slightly tacky and sticks together. Flatten dough into 4-inch disk. Wrap in plastic wrap and refrigerate at least 45 minutes or up to 2 days.

3. Adjust oven rack to lowest position, place rimmed baking sheet on oven rack, and heat oven to 425 degrees. Remove dough from refrigerator and roll out on generously floured (up to $\frac{1}{4}$ cup) work surface to 12-inch circle about $\frac{1}{8}$ inch thick. Roll dough loosely around rolling pin and unroll into pie plate, leaving at least 1-inch overhang on each side. Working around circumference, ease dough into plate by gently lifting edge of dough with 1 hand while pressing into plate bottom with other hand. Leave overhanging dough in place; refrigerate until dough is firm, about 30 minutes.

4. Trim overhang to $\frac{1}{2}$ inch beyond lip of pie plate. Fold overhang under itself; folded edge should be flush with edge of pie plate. Flute dough or press tines of fork against dough to flatten against rim of pie plate. Refrigerate dough-lined plate until firm, about 15 minutes.

5. Remove pie plate from refrigerator, line crust with foil, and fill with pie weights or pennies. Bake for 15 minutes. Remove foil and weights, rotate plate, and bake for 5 to 10 additional minutes, until crust is golden brown and crisp. Let cool to room temperature.



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