The Pecan Pie: Responding to Issues of Crust Burn and Filling Ooze

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I. Introduction

The components of a typical pecan pie filling are fairly consistent: Pecans, eggs, butter, sugar. Although recipes for the pie are numerous, most fail to address directly two age-old concerns associated with the pie: (1) The tendency of the pie's outer crust to burn [hereinafter "crust burn"]; and (2) The risk that the pie's filling will not set up sufficiently and will leak once the pie is served [hereinafter "filling ooze"]. The two issues are related as both derive primarily from the period of time during which the pie is baked.

This Article adds to the literature by directly addressing crust burn and filling ooze. It approaches these issues from both a quantitative and qualitative standpoint and suggests solutions that should eliminate the issues moving forward. Part II describes the ingredients for the pecan pie and its assembly. Parts III and IV address the burn and ooze issues, respectively. Part V concludes with serving suggestions and avenues for further research.³

^{*} Dean and Professor of Law, University of Kansas School of Law. The subject recipe derives from Mrs. Charles Eyster, Jr., *Pecan Pie, in* COTTON COUNTRY COOKING 153 (1972). The author wishes to thank his mom, Jo Ann Fowler Mazza (1935-2020), for creating a tradition of serving this pecan pie at every holiday family gathering. The author also wishes to thank the students, staff, and faculty of the University of Kansas School of Law for their determination and compassion during 2020. Finally, thanks to Professor Lou Mulligan, Executive Assistant Michele Rutledge, Wheat Law Librarians Chris Steadham and Blake Wilson, KU Law Student Sarah Buchanan, and Director of Communications Margaret Hair for their assistance with research and formatting.

^{1.} See, e.g., Fannie Farmer, The Fannie Farmer Cookbook 583 (12th ed. 1984); Jule Kranert, Pecan Pie, in Huntsville Entertains 389 (1983); Easy Pecan Pie Recipe, Cookies & Cups (Nov. 2, 2018), https://cookiesandcups.com/easy-pecan-pie-recipe/.

^{2.} See, e.g., sources cited supra note 1.

^{3.} No representation is made that the recipe described in this piece is superior to any other pecan pie recipe. The piece focuses instead on procedural issues surrounding the pie's creation. Having said that, evidence exists supporting the conclusion that, at a minimum, the pie ranks very highly when compared with pecan pies advocated by others. A recent example is illustrative. The author prepared a pecan pie using the instructions provided in this Article and delivered it to Dr. Barbara A. Bichelmeyer, currently the Provost of the University of Kansas and formerly an employee at Tippin's Pies. The Provost responded with a

thank you card stating, "This is one of the best pies I've ever had." Letter from Barbara Bichelmeyer to Stephen Mazza (Dec. 1, 2020) (on file with author). Shortly thereafter, the Provost's colleague, Linda Luckey, sent the author an email stating, "[the Provost] said it was the *best* pie she ever ate – more than once so know she really, really liked it." Email from Linda Luckey to Stephen Mazza (Nov. 19, 2020, 04:01 CST) (on file with author) (emphasis added).

The Provost qualifies as an expert witness as to pies. See FED. R. EVID. 702 (setting standard for expert testimony). Indeed, she readily passes muster under the familiar Daubert five-factor weighing test. See Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 592–94 (1993) (setting a 5-factor test for qualifying expert witnesses). The applicability of the individual factors listed depends on the nature of the issue, the witness's particular expertise, and the subject of the proffered testimony. See Kumho Tire Co. v. Carmichael, 526 U.S. 137, 151 (1999). As the Daubert Court itself held, the ultimate reliability inquiry "is a flexible one." Daubert, 509 U.S. at 594. As such, all five factors need not be present in every case in order to support admission of the witness as an expert. See Kumho Tire, 526 U.S. at 151. Finally, as the Kumho Tire Court held, a trial court's basic "gatekeeping responsibility" applies to the admissibility of expert testimony based on "technical" and "other specialized" knowledge—such as pie tastiness—not only scientific expertise. Id. at 147.

Here, the Provost's expert report reveals her qualifications as a pie expert. See FED. R. CIV. P. 26(a)(2)(B)(iv) (an expert witness's report must contain "the witness's qualifications, including a list of all publications authored in the previous 10 years"). The Provost worked at Tippin's Pies, a world leader in pies, for some time. See About Us, TIPPIN'S PIES, https://tippinspies.com/about-us (relating Tippin's storied history as Kansas City's leading pie company and noting Tippin's is "passionate about making world-class pies.") (last visited Dec. 13, 2020). As the North Carolina Supreme Court held, "a witness with a Ph.D. in organic chemistry may be able to describe in detail how flour, eggs, and sugar react on a molecular level when heated to 350 degrees, but would likely be less qualified to testify about the proper way to bake a cake than a ... baker with no formal education." State v. McGrady, 787 S.E.2d 1, 13 (N.C. 2016) (applying North Carolina's version of Rule 702). For these same reasons, the Provost's practical experience qualifies her as an expert in pie.

Linda Luckey's statements bolsters this expert testimony. Ms. Luckey's email, of course, is admissible under the double-hearsay rule. See FED. R. EVID. 805 ("Hearsay within hearsay is not excluded by the rule against hearsay if each part of the combined statements conforms with an exception to the rule."). Under Federal Rule of Evidence 805, if both the Provost's statement and Ms. Luckey's email fall under an exception to the hearsay rule, then the email is admissible despite being an out-of-court statement offered for the truth of the matter asserted. Here, the Provost's statement is obviously a "present sense impression," which is an exception to the general rule barring hearsay. See FED. R. EVID. 803(1) ("A statement describing or explaining an event or condition, made while or immediately after the declarant perceived it."). Ms. Luckey's email similarly falls

II. THE BASICS ASSOCIATED WITH ASSEMBLING A PECAN PIE

A. INGREDIENTS:

The ingredients for the subject pecan pie consist of pecans,⁴ eggs,⁵ melted butter,⁶ white sugar,⁷ brown sugar,⁸ Karo-brand syrup,⁹ vanilla extract,¹⁰ flour,¹¹ and salt.¹² The pie also requires

neatly under the recorded recollection exception to the prohibition upon hearsay. *See* FED. R. EVID. 803(5) ("A record that: (A) is on a matter the witness once knew about but now cannot recall well enough to testify fully and accurately; (B) was made or adopted by the witness when the matter was fresh in the witness's memory; and (C) accurately reflects the witness's knowledge."); *see also EEOC v. Staffmark Inv. LLC*, 67 F. Supp. 3d 885 (N.D. Ill. 2014) (admitting emails under Fed. R. Evid. 803(5)).

Attempts to establish definitive proof of the recipe's dominance when compared with other efforts in the field of pecan pies would likely require human subject matter testing. Such testing must comply with a host of regulatory requirements, including those established by the Public Health Service Act. Pub. L. No. 93-348, §§ 201–215, 88 Stat. 342 (1974); 45 C.F.R. §§ 46.101–.409 (2020). No attempt to obtain the necessary approvals has been taken.

- 4. Pie makers are advised to use one and one-quarter cup of fresh, whole pecans. The relationship between the quantity of pecan used and the risk of filling ooze is more fully described *infra* Part IV. A full listing of ingredients is included in the Appendix.
 - 5. The accurate quantity of eggs is three. The eggs should be large in size.
- 6. One-half cup, which corresponds to one full stick of commercially available butter, is the correct quantity for this recipe.
- 7. One-quarter cup of white, granulated sugar should be incorporated into the pie filling. Please note that the recipe calls for both white and brown sugar. The quantities of each differ significantly.
- 8. The author advises the use of one cup of brown sugar, the amount of which is further refined by the quantity of sugar that fits within a one-cup measure after being tightly packed within that measure. Brown sugar typically comes in one of two varieties: Light and dark. The author suggests the use of dark brown sugar as, in his opinion, it imparts a deeper flavor to the completed pie.
- 9. Karo syrup is a commercially available product made up of dextrose and other sugars. As in the case of brown sugar, it is available in two varieties. Light Karo syrup is flavored with vanilla while dark Karo syrup is flavored with caramel. Angela Robinson, *What is Karo Syrup?*, LEAFTV, https://www.leaf.tv/articles/what-is-karo-syrup/ (last visited Dec. 14, 2020).
- 10. The recipe calls for one teaspoon of pure vanilla extract. The use of vanilla flavoring, as compared with extract, could negatively impact the quality of the pie.
- 11. As more fully described in Part IV, adding one tablespoon of all-purpose flour helps counteract the possibility of filling ooze.
 - 12. One pinch of salt is sufficient to boost the flavor of the other ingredients.

an unbaked crust. 13

B. ASSEMBLY AND BAKING:

To prepare the pie, fit the crust in a 9.5-inch or 10-inch glass pie pan. Sprinkle the pecans evenly into the bottom of the unbaked pie crust. Beat the eggs in a bowl, add all remaining ingredients to the eggs, and stir well. Precaution should be taken that the temperature of the melted butter is not so high as to "scramble" the eggs. Pour the filling into the pie shell. Allow the pecans to rise to the surface of the filling mixture and, if necessary, spread out the pecans to ensure that they remain evenly spaced over the top of the filling. Bake the pie in a 325 degree oven for approximately one (1) hour and fifteen (15) minutes. ¹⁴

III. PREVENTING CRUST BURN

As noted above, crust burn and filling ooze are related. They arise largely, but not exclusively, from the applicable baking time. As noted in Part II.B., the pie should be baked at 325 degrees for approximately an hour and fifteen minutes. Because oven temperatures vary widely, the suggesting baking time represents an approximation. Whether the pie bakes for more or less than the suggested length of time, however, the baker is likely to encounter crust burn.

The most effective anecdote to crust burn is a pie crust "shield," also known as a pie crust "protector." Pie crust shields are typically made of a metal alloy. They are also available in silicon. ¹⁵ The

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^{13.} Creating a pie crust is beyond the scope of this Article. Readers are encouraged to research the issue independently or purchase a pre-prepared crust. In the author's experience, Pillsbury-brand prepared pie crusts, which are found in the refrigerator section of most grocery stores, work well. The package includes two separate crusts. The author suggests using both by gently pressing one on top of the other. The use of two crusts prevents the filling from leaking below the bottom crust ("filling leak"). Filling leak is separate from filling ooze, although the two are related.

^{14.} Additional instructions relating to baking time are contained *infra* Part IV.

^{15.} Compare Mrs. Anderson's Baking Pie Crust Protector Shield, Fits 9.5-Inch and 10-Inch Pie Plates (aluminum), with Luxtrip 2 Pack Pie Crust Shield Silicone Pie Protectors Adjustable Silicone Pie Crust Shield Fits 8" to 10" Diameter Pies, Red (silicon).

baker can also fashion a shield out of a disposable metal pie pan and aluminum foil. To do so, carefully remove the center portion of the disposable pie plate so that only one-half inch of the outer diameter remains. Press the outer section flat. Create strips of aluminum foil approximately two (2) inches in height and four (4) inches in length. Adhere the strips to the outer section of the pie pan by overlapping and "crumpling" them together. The goal is to increase the diameter of the outer section of the pie pan's edge in order to cover the crust.

After placing the pie in the oven, wait approximately 40 minutes. Open the oven and carefully place the pie crust protector over the outer edge of the crust. ¹⁶ The protector should sit gently on top of the crust: It does not need to wrap around the crust. The crust protector and the act of placing it on the pie should not disturb the pie's center. As soon as the crust protector is installed, close the oven and continue to monitor the pie's progress.

IV. ELIMINATING THE POTENTIAL FOR FILLING OOZE

While the issue of crust burn can be addressed exclusively from a quantitative perspective, eliminating the problem of filling ooze involves both quantitative and qualitative responses. Quantitatively, bakers should ensure the addition of flour to the unbaked pie filling, which helps boost the filling's viscosity. ¹⁷ Interestingly, adding the correct amount of pecans also has a relationship to filling ooze. Too many pecans will impede the ability of the pie's filling to rise appropriately during the baking process. ¹⁸ As explained immediately below, it is important for the pie's center to rise so as to reveal necessary clues about the pie's completion.

The fundamental solution to filling ooze is a qualitative one. As the pie bakes, the center will rise or "puff up" to a dome shape. The pie's center having risen is not the final indication that filling ooze has been eliminated. The center must not only rise up but must also begin to "quiver"; that is, the center of the pie should move in a wave-like motion. The quiver may also be accompanied by small bubbles that appear between the upper layer of pecans. These up-

^{16.} Bakers may also wish to rotate the pie 180 degrees clockwise in order to ensure even baking.

^{17.} See supra note 11 and accompanying text.

^{18.} Conversely, adding too few pecans results in a pie with too few pecans.

and-down movements of the filling and the bubbles should appear not just on the outer circumference of the pie filling but also in the filling's center.

Detecting the requisite quiver and the tell-tale bubbles requires expressions of judgment on the part of the baker. In the author's experience, these indications may reveal themselves anywhere from 1 hour and 10 minutes into the baking process to as much as 1 hour and 30 minutes into the process. Bakers who are uncertain about the qualitative decision of whether the pie should be removed from the oven are advised to allow it to stay in the oven a bit longer. While some chewiness resulting from overbaking may impede enjoyment of the finished product to some degree, a pecan pie that exhibits filling ooze is, in the author's opinion, at least a misdemeanor-level crime.

The final preventative to the problem of filling ooze relates to serving. The pie should be allowed to cool completely before being cut. Serving the pie while it is warm significantly increases the risk of filling ooze.

V. SERVING SUGGESTIONS

The finished pie is best served with family and friends. It also makes a nice gift. 19 Ice cream and whipped cream are acceptable as

^{19.} Gifts, whether made in the form of cash or property, are not included in the income of the donee for federal income tax purposes. Internal Revenue Code (I.R.C.) § 102(a); Treas. Reg. § 1.102-1(a). But see I.R.C. § 102(c)(1) ("Subsection (a) shall not exclude from gross income any amount transferred by or for an employer to, or for the benefit of, an employee."). Whether a transfer constitutes a gift depends upon the donor's intent when making the transfer. See Comm'r v. Duberstein, 363 U.S. 278, 285-86 (1960) ("A gift in the statutory sense ... proceeds from a 'detached and disinterested generosity,' 'out of affection, respect, admiration, charity or like impulses.") (citations omitted). It is a question of fact. Id. at 289 (holding that whether a gift exists depends upon "the application of the fact-finding tribunal's experience with the mainsprings of human conduct to the totality of the facts of each case."). Whether a gift triggers federal gift tax liability depends upon the donor's use of the available annual exclusion and the donor's unified credit. I.R.C. §§ 2503(b) (annual exclusion), 2010 (unified credit). For further reading on the gift tax, see MARTIN B. DICKINSON ET AL., TAXATION OF ESTATES, GIFTS AND TRUSTS (22nd ed. 2002). Readers are encouraged to contact their own tax advisors for specific advice as

accompaniments to the pie, but are not required.

The problems of crust burn and filling ooze plague other baked goods. It is most prevalent, however, in the case of pies. An analysis of possible responses in related contexts, most notably fruit pies, remains largely unexplored. It is also unclear whether different types of fruit pies, whether they be apple, cherry, or peach, would respond to the same set of solutions. Fruit pies also suffer from a related but separate issue – the tendency of the bottom crust to absorb too much of the pie's liquid filling ("gooey pie bottom"). The author encourages further research on these issues. In the meantime, he and his colleagues at the KU Law School wish all a happy and safe 2020 holiday season.

tax consequences may vary.

APPENDIX

1½ cup pecans
3 slightly beaten eggs
½ cup melted butter
¼ cup white sugar
1 cup dark brown sugar packed tightly
1 cup dark Karo syrup
1 teaspoon vanilla
1 tablespoon flour
pinch salt

Fit prepared pie crust into a 9.5 or 10 inch glass pie dish.

Sprinkle pecans over unbaked pie crust.

Mix together beaten eggs, melted butter, sugars, syrup, vanilla, flour, and salt.

Pour filling into the pie shell.

Bake at 325 degrees for anywhere from 1 hour to 1 hour-and-20 minutes or until pie filling rises to a dome and center of pie moves up and down slightly.

40 minutes through the baking process, apply a pie crust protector.

Cool completely.

Serves 1 to 8.