

# Better than Store-Bought Bagels

*When you can't buy chewy, first-rate bagels, you can make them at home in just 45 minutes after chilling the dough in the refrigerator overnight.*

by Todd Butcher



My favorite way to eat a bagel is plain and unadorned, still warm from the oven. I linger on the details: the complex, yeasty aroma; the golden crust, stubbled with the crispy fermentation bubbles that bakers call "fish eyes"; the tenaciously chewy interior. I can say without reservation that I am a bagel fanatic.

So I knew I was in trouble when I moved to a town without a decent bagel shop. What was needed, I decided, was a simple process for baking delicious, attractive, authentic bagels at home.

I started out with great confidence. Looking at all the home recipes I could get my hands on, I developed a fairly typical recipe using bread flour, salt, sugar, yeast, and water, reasoning that the bread flour would give my bagels the chewy texture I was looking for. Following the procedure outlined in all the recipes, I kneaded the dough and then allowed it to rise for about an hour. Next I shaped it into rings, then proofed, boiled, and finally baked the bagels.

Rather than plump, smooth, golden brown bagels, I ended up with small, dense hockey pucks, with crusts that were dull, wrinkled, and mottled brown. The flavor was bland and unappealing, and the internal crumb structure was very dense. Although they were somewhat chewy, these bagels lacked the crisp crust and springy interior texture I associate with well-made bagels. I had my work cut out for me.

## The Well-Shaped Bagel

I decided that the first issue I needed to address was appearance. One problem I had encountered in forming the bagels was that after the first rise, the dough was somewhat grainy and loose. Instead of stretching easily, it was more inclined to tear. Forming bagels at this stage, as all recipes I came across advocated, tended to result in a lumpy, uneven crust. To overcome this difficulty, I tried forming the bagels immediately after I kneaded the dough, letting the rings rise until puffy, then boiling and baking as before.

This approach turned out to be an improvement in terms of handling the dough, and also in the appearance of my bagels. However, they were still small and tough.

I began to question my choice of flour. I



Malt syrup, the sweetener traditionally used in bagels, delivers an authentic bagel flavor that is impossible to match with honey or sugar.

figured that bread flour, with about 13 percent protein content, was probably an improvement over all-purpose flour, with about 12 percent protein content. I knew that the higher protein level would lead to the formation of more gluten, that network of elastic protein strands that traps the carbon dioxide released by the activity of the yeast, allowing bread to rise. It stood to reason, then, that a higher-protein flour would rise better, thus yielding a bagel that was plumper and had a finer, chewier texture.

The next flour up the scale in terms of protein content is high-gluten, a flour produced by the milling of high-protein wheat. High-gluten flour has the highest protein content of any flour, usually around 14 percent, and is the flour of choice at most professional bagel bakeries and pizza parlors. I made my next batch of bagels using high-gluten flour and saw a difference the moment I removed the dough from the mixer. This dough was satiny smooth and much more elastic than the dough made with bread flour. And the bagels made with high-gluten flour were larger and rose higher. In addition, the crust was smoother and more at-

tractive. The interior structure of these bagels was also better; they were lighter and chewier than previous attempts.

I was getting close now, but my bagels were still a bit flat on the bottom. A little fiddling around with the water-to-flour ratio quickly solved that problem. Initially, I was treating the bagel dough like any other bread dough, trying to achieve a smooth, slightly tacky consistency. A few test batches using less water in relation to flour revealed that a stiff, drier dough produces a firmer-textured, even chewier bagel. "Dry," however, may not be the most appropriate word to use in describing the correct consistency. A dough with the right consistency will be smooth and elastic, though somewhat firm. After the dough has come together in the first five minutes of mixing, it should not stick to your finger when pressed. And when you have completely kneaded the dough, a piece formed into a golf ball-sized ball should hold its shape and should not sag.

With the shape and texture of my bagels very much improved, I turned to the issue of flavor.

## Retarding, the Professional's Secret

Traditionally, bagels are placed in a specially designed refrigerator, called a retarder, for several hours or overnight after being formed. This practice allows for a slower, more natural fermentation. It is during this retarding process that bagels develop most of their flavor. I wanted to test the impact of retarding for myself, so after mixing and forming a batch of bagels, I placed them in the refrigerator overnight. The results were both dramatic and surprising.

The most obvious change in my bagels was in their size. What had gone into the refrigerator as tight, shapely rings of dough came out as flaccid blobs. The yeast fermentation had continued unabated, and my bagels had overproofed. I finished the boiling and baking process anyway.

In spite of being overlarge and flat-bottomed, the result of overproofing, these bagels were a vast improvement over my previous attempts. When I sliced one open, I was greeted by a heavenly aroma. This was more than just flour, salt,



and yeast! The long, slow fermentation process the bagels had undergone had yielded the complex flavor and aroma I was seeking. So retarding really was crucial for great bagel flavor. I was even more surprised by the other effects of retarding; the crust of the retarded bagels had taken on a dark, reddish sheen and the surface was covered in crispy fish eyes.

For an explanation of what was actually happening to my bagels in the retarder, I called Wulf Doerry, retired Director of Cereal Technology at the American Institute of Baking in Manhattan, Kansas. According to Doerry, the primary mechanism involved in the retarding process is bacterial fermentation. At the lower temperatures of the retarder, the yeast fermentation is suppressed and the lactobacilli bacteria naturally present in the flour and the yeast begin to produce a variety of organic acids, primarily lactic acid and acetic acid. These organic acids, the same acids present in a healthy sourdough culture, give the dough a more complex flavor.

But what about those fish eyes? Doerry explains that this same bacterial reaction breaks down some of the gluten in the dough. The weakened gluten structure on the surface of the bagels allows the formation of fermentation bubbles.

I also noticed that the retarded bagels have a richer, reddish brown crust color, the result of what Doerry calls the Maillard, or browning, reaction. He explains that during the retarding process, enzymes produced by the bacteria convert wheat starch into simple sugars and protein into peptides and amino acids. As the product loses moisture during baking, the reaction between these sugars and the amino acids—the Maillard reaction—produces a rich brown crust color.

In subsequent tests, I lowered the yeast level in my recipe by a full half. I also lowered the temperature of the water I used in the dough to control the activity of the yeast. Initially, I had been proofing the active dry yeast in 110-degree water as recommended on the package. The procedure I settled on was to not dissolve the yeast before adding it to the flour, and to use 80-degree water.

Experimenting with different retarding times, I eventually concluded that a period of between twelve and eighteen hours is best for a balance between flavor and crust development. Less time and the flavor did not develop as fully, although a short retarding time is better than none. More than eighteen hours and I began to notice some adverse effects on the bagels, such as an excessive darkening of the crust, the formation of large bubbles inside the bagels, and the development of too many fermentation bubbles on the surface.

#### A Quick Boil Is Best

Boiling the dough, which is the most unique step in the bagel-making process, is also responsible for the bagel's most unique characteristics, the shiny crust and chewy tex-

## THE BEST WAY TO SLICE A BAGEL

Ever since the '90s boom of bagel shops and franchises, there's been a pilgrimage of bagel lovers to hospital emergency rooms, according to doctors. The round shape of bagels makes them awkward to grip, and their tough exterior is difficult to slice through. An accidental slip doesn't take much.

It was inevitable, then, that bagel slicing contraptions would begin popping up in cookware stores and catalogs—as they did. We decided to try out a few and compare them with manual methods to determine the safest and easiest technique.

The bagel guillotine (\$30) raised the most curiosity. This gizmo has a V-shaped blade that pierces and slices through the bagel, which is cradled in a base. We liked the plastic shield around the blade because it makes it nearly impossible to slice your fingers. Safety aside, however, we had trouble slicing all the way through our homemade bagels. The guillotine did slice through tougher store-bought bagels fairly easily, but another problem emerged with these bagels. Because they were not as thick as the one-and-three-quarter-inch guillotine cradle, the bagels tilted and sliced unevenly.

Thickness presented just the opposite problem for the two wooden cradle bagel slicers (\$7) we tested. Both were under one and one-half inches wide, and neither store-bought nor our homemade bagels would fit.

Fit was not an issue with the Bagel Trap (\$20). This device has a plastic slotted cradle with a spring arm that allows for flexibility in width and securely holds the bagel in place. For both these reasons, we liked it. Unfortunately, it holds too well, tending to squish softer bagels and mar them with the waffle grid of its back holding plate.

Between the costs and inconvenience of the bagel-slicing gadgets, we found that slicing by hand is still the best way to go. To do so safely, however, you must use a bread knife. The teeth of a bread knife are essential to sawing through the crust of any bread. Smooth-bladed knives, such as a chef's knife, tend to slip.

We recommend two methods for slicing bagels with a bread knife. One of our writers prefers to put on a clean oven mitt to cradle the bagel in his hand and slice. The knife just won't puncture through all that fabric and padding (see Quick Tips, page 4). Another editor prefers to simply rest a thick towel folded over in her hand.

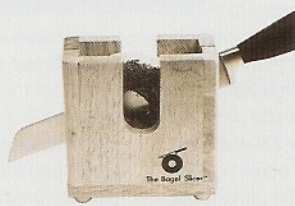
Personally, I like making a horizontal cut halfway through the bagel, then propping the bagel on its side to finish the cut. (For a similar technique using a Chinese chef's knife, see page 16.) Be sure to prop the bagel on a cutting board with the sliced side up. Hold it steady at the top where the knife has already passed.

Any of these techniques should render you evenly halved bagels, safely—without the gimmicks.

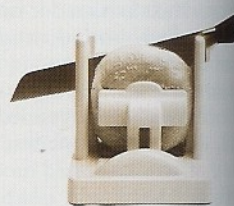
—Maryellen Driscoll



**BAGEL GUILLOTINE**  
Failed to slice homemade bagels, and sliced store-bought versions unevenly.



**WOODEN CRADLE SLICERS**  
Not wide enough for homemade or most store-bought bagels to fit into.



**BAGEL TRAP**  
Holds bagels so tight that it squishes softer ones and mars all with waffle marks.

ture. Boiling the bagels before baking them serves three purposes. Most importantly, it sets the shape of the bagel by cooking the surface and killing off some of the yeast in the outer layer of dough. This helps to limit the expansion of the bagel when it is baked. A bagel that is not boiled, I discovered, will expand into a round ball in the heat of the oven. The second function of the boiling process is to give the bagel its characteristic shine. When you boil the bagel, starches on the surface become gelatinized. These starches then cook to a crispy, shiny coating in the oven. The third purpose of boiling is to activate the yeast in the inner layers of dough, which has been made sluggish by the retarding process.

All of the home recipes I reviewed recommended boiling the bagels for a period of from one to four minutes. I tried the whole range of suggested times and found, surprisingly, that a shorter boil of about thirty seconds yielded the best results. Bagels boiled for four minutes had noticeably less shine and were not as plump as those boiled for thirty seconds. I surmised that the bagels boiled for four minutes had developed such a thick crust that they were unable to expand fully in the oven.

#### MASTER RECIPE FOR PLAIN BAGELS

*Makes 8 bagels*

Because bagel dough is much drier and stiffer than bread dough, it takes longer for the ingredients to cohere during mixing. For this



same reason, we recommend that you neither double the recipe nor try to knead the dough by hand. Most good natural foods stores carry barley malt syrup. High-gluten flour might be more difficult to find. You can order both the syrup and the flour from the King Arthur Flour Baker's Catalogue (see Sources and Resources, page 32).

- 4 cups high-gluten flour
- 2 teaspoons salt
- 1 tablespoon barley malt syrup or powder
- $1\frac{1}{2}$  teaspoons active dry yeast
- $1\frac{1}{4}$  cups lukewarm water (80 degrees)
- 3 tablespoons cornmeal, for dusting baking sheet

1. Mix flour, salt, and malt in bowl of standing mixer fitted with dough hook. Add yeast and water; mix at lowest speed until dough looks scrappy, like shreds just beginning to come together, about 4 minutes. Increase to speed 2; continue mixing until dough is cohesive, smooth, and stiff, 8 to 10 minutes.

2. Turn dough on to work surface; divide into eight portions, about 4 ounces each. Roll pieces into smooth balls and cover with towel or plastic wrap to rest for 5 minutes (see illustration 1, right).

3. Form dough balls into dough rings (illustrations 2 through 4), place on cornmeal-dusted baking sheet, cover tightly with plastic wrap, and refrigerate overnight (12 to 18 hours).

4. About 20 minutes before baking, remove dough rings from refrigerator. Adjust oven rack to center position and heat oven to 450 degrees. Fill large soup kettle with 3-inch depth of water; bring to rapid boil. To test the proofing of the dough rings, fill large bowl with cool water. Drop dough ring into bowl; it should float immediately to surface (if not, retest every 5 minutes).

5. Working four at a time, drop dough rings into boiling water, stirring and submerging loops with Chinese skimmer or slotted spoon (illustration 5), until very slightly puffed, 30 to 35 seconds. Remove rings from water; transfer to wire rack, bottom side down, to drain.

6. Transfer boiled rings, rough side down, to parchment paper-lined baking sheet or baking stone. Bake until deep golden brown and crisp, about 14 minutes. Use tongs to transfer to wire rack to cool. Serve warm or at room temperature.

### TOPPED BAGELS

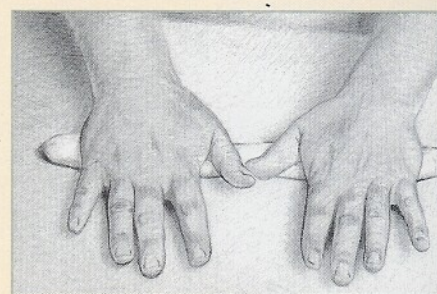
Topping ingredients stick to the bagels best when applied to the dough rings just as they come out of the boiling water, while still wet and sticky from boiling.

- $\frac{1}{2}$  cup single topping ingredient of choice, such as raw sesame seeds, poppy or caraway seeds, dehydrated onion or garlic flakes, or sea or kosher salt or:

## FORMING AND COOKING



1. Divide the dough into eight even-sized pieces. Roll each piece into a smooth ball and cover the balls with a towel or a piece of plastic wrap for 5 minutes to rest them.



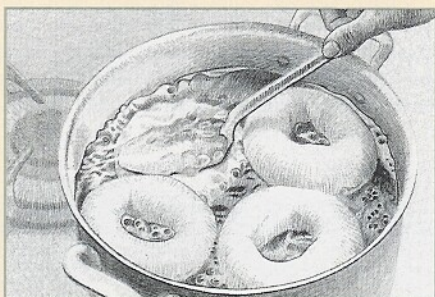
2. Form each dough ball into a rope 11 inches long by rolling it under your outstretched palms. Do not taper the ends of the rope.



3. Overlap the ends of the rope about  $1\frac{1}{2}$  inches and pinch the entire overlapped area firmly together. If the ends of the rope do not want to stick together, you can dampen them slightly.



4. Place the loop of dough around the base of your fingers and, with the overlap under your palm, roll the rope several times, applying firm pressure to seal the seam. The bagel should be roughly the same thickness all the way around.



5. While boiling the bagels, press them down with the back of a slotted spoon or Chinese skimmer to keep them submerged.



6. To top the bagels, dunk them into a small bowl of the desired topping.

- $\frac{1}{2}$  cup combination of topping ingredients, including 2 tablespoons each of sesame and poppy seeds and 1 tablespoon each of caraway seeds, sea or kosher salt, dehydrated onion flakes, and dehydrated garlic flakes

Follow Master Recipe for Plain Bagels, dunking bagel into topping ingredient(s)

(illustration 6) while still wet and sticky.

### CINNAMON RAISIN BAGELS

Follow Master Recipe for Plain Bagels, mixing 1 teaspoon vanilla extract, 1 tablespoon ground cinnamon, and  $\frac{1}{2}$  cup raisins into flour, salt, and malt in step 1.

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