Quicker Caramelized Onions

The key to quicker caramelized onions is the ingredient we least expected: water.

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ith nothing more than heat and time, onions can undergo an extraordinary transformation. Sweet and complex caramelized onions can improve everything from soups, dips, and sandwiches to pizzas, casseroles, pastas, and salads. The traditional approach is long, careful cooking over a low flame for upwards of 11/4 hours. There are shortcut recipes that rely on cranking up the heat, but the results are never as richly flavored as the real deal. I've also found that when I cut one of these quick-caramelized strands in half, I reveal a pale, watery interior lurking beneath the brown exterior. I set myself the challenge of finding a way to shave off time and still produce exemplary caramelized onions.

First, I reviewed the science behind the traditional approach: Cooking causes the onions to break down and soften, releasing water, sugars, and proteins. The water evaporates, concentrating flavor. Given heat and time, the sugars and proteins undergo two reactions. One is caramelization, in which sugar molecules recombine into hundreds of new flavor, color, and aroma compounds. The other is Maillard browning, where sugars react with amino acids to produce a different diverse array of flavors and colors.

In the test kitchen we often turn to baking soda to speed up browning. This is because it creates a high-pH (basic) environment, which allows browning reactions to occur more readily. It's also handy for softening vegetables because altering the pH helps weaken their structure. I wanted to speed up both processes, so why not add baking soda here?

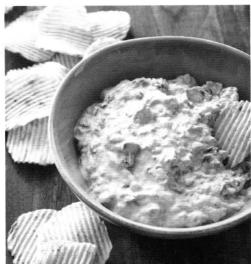
I sliced three large onions and added them to a nonstick skillet (its surface would ensure that the fond stuck to the onions, not to the pan) with 2 table-spoons of oil and ½ teaspoon of baking soda. After just 45 minutes over a moderate flame, they were impressively browned, sweet, and complex-tasting. In fact, they were much sweeter than any I'd had before. Our science editor explained that the baking soda sped up the conversion of flavorless compounds called inulin into the simple sugar fructose. So while many recipes for caramelized onions call for adding sugar or honey to boost sweetness, there was no need for that in my recipe.



See How It Happens
A step-by-step video is available at
CooksIllustrated.com/oct17









Clockwise from top left: Our rich, complex-tasting caramelized onions take just 30 minutes to cook. They will enrich a flaky goat cheese and tomato tart, a simple pasta dish, and a quick creamy dip.

But there was a drawback to the baking soda. It caused the onions to break down too much; by the time they were browned, I had a skillet full of onion jam instead of the tender, distinct strands I wanted. To keep the flavor benefits of baking soda without ending up with mush, I added it at the last minute. Doing so, even at the last minute, deepened the color and flavor. But I still had to cook the onions for well over an hour. I'd have to look for other ways to speed things up.

Here's the thought that came to mind. Moisture is usually regarded as the enemy of browning, since food needs to rise above 212 degrees in order to

brown, and that can't happen until most of the moisture burns off. But I knew that adding water and covering the skillet could help speed up the cooking without working against me. After all, the first part of the cooking process isn't about browning but rather softening the onions and breaking down their structure. Surrounding the onions with steam (and submerging some of them in the added water) would heat them more quickly and thoroughly than just relying on the heat generated by cooking surface of the skillet alone. When cooked with ³/₄ cup of water, the onions wilted about 10 minutes faster. I then uncovered the skillet and turned the heat to

CARAMELIZED ONIONS MAKES ABOUT 2 CUPS

We prefer yellow or Spanish onions in this recipe for their complex flavor. Slicing the onions through their root end prevents them from breaking down too much during cooking. Caramelized onions are easily added to most any meal. Try them in an omelet, in a frittata, or with scrambled eggs. They taste fantastic on grilled cheese sandwiches, BLTs, and burgers or thrown into pasta dishes and green salads. Try sprinkling them over bruschetta, focaccia, or pizza. They also can be used to spiff up baked and mashed potatoes, rice, risotto, and polenta.

- 3 pounds onions, halved and sliced through root end ¼ inch thick
- 3/4 cup plus I tablespoon water
- 2 tablespoons vegetable oil
- 3/4 teaspoon salt
- 1/8 teaspoon baking soda

Starting the onions with water in the skillet breaks down and softens the onions' cell structure more quickly and evenly than dry heat from the bottom of the skillet alone.

1. Bring onions, ¾ cup water, oil, and salt to boil in 12-inch nonstick skillet over high heat. Cover and cook until water has evaporated and onions start to sizzle, about 10 minutes.



After most of the

liquid has evaporated,

the skillet gets hot

2. Uncover, reduce heat to medium-high, and use rubber spatula to gently press onions into sides and bottom of skillet. Cook, without stirring onions, for 30 seconds. Stir onions, scraping fond from skillet, then gently press onions into sides and bottom of skillet again. Repeat pressing, cooking, and stirring until onions are softened, well browned, and slightly sticky, 15 to 20 minutes.

A baking soda solution added at the very end of cooking speeds up the conversion of the flavorless compounds called inulin into the simple sugar fructose. The result is sweeter onions without the added sugar of most recipes.



3. Combine baking soda and remaining I tablespoon water in bowl. Stir baking soda solution into onions and cook, stirring constantly, until solution has evaporated, about I minute. Transfer onions to bowl. (Onions can be refrigerated for up to 3 days or frozen for up to I month.)

medium-high. Since browning occurs only where the onions are in direct contact with the hot pan, I gently pressed the softened onions into the bottom and sides of the skillet to allow for maximum contact. I let them sit for about 30 seconds and then stirred them; I repeated the pressing and stirring process for the rest of the cooking time. Repeating this technique thoroughly softened and deeply browned the onions in just 15 minutes; start to finish, the entire cooking time took less than half an hour.

There are countless ways to use these tender, sweet, richly flavored onions, and I came up with just a few: I combined them with sour cream, yogurt, chives, and vinegar for a quick dip; I layered them on puff pastry with tomatoes and goat cheese for an elegant tart; and I tossed them with pasta, pepper, and salty Pecorino. And that's just a start.

CARAMELIZED ONION DIP

MAKES 2 CUPS

The dip can be refrigerated for up to 24 hours before serving.

- I cup sour cream
- ²/₃ cup caramelized onions, chopped fine
- ⅓ cup yogurt
- 2 tablespoons minced fresh chives
- teaspoon distilled white vinegar Salt and pepper

Stir together sour cream, onions, yogurt, chives, vinegar, ½ teaspoon salt, and ½ teaspoon pepper. Refrigerate dip for at least 1 hour. Season with salt and pepper to taste. Serve.

CARAMELIZED ONION, TOMATO, AND GOAT CHEESE TART

SERVES 4

To thaw frozen puff pastry, let it sit either in the refrigerator for 24 hours or on the counter for 30 minutes to 1 hour before using. This recipe can be easily doubled. Bake the two tarts on separate baking sheets on the upper- and lower-middle oven racks, switching and rotating the sheets halfway through baking.

- I (91/2 by 9-inch) sheet puff pastry, thawed
- 1/2 cup caramelized onions
- 1/4 teaspoon minced fresh thyme
- 6 ounces cherry tomatoes, halved
- 2 ounces goat cheese, crumbled (½ cup) Salt and pepper
- 1. Adjust oven rack to upper-middle position and heat oven to 425 degrees. Line baking sheet with parchment paper.
- 2. Unfold pastry onto lightly floured counter. Roll pastry into 10-inch square. Transfer to prepared sheet. Lightly brush ½-inch border along edges of pastry with water; fold edges of pastry over by ½ inch.
- 3. Stir together onions and thyme. Spread onion mixture in even layer over pastry, avoiding raised border. Arrange tomatoes and goat cheese evenly over onions. Season with salt and pepper to taste. Bake until pastry is puffed and golden brown, 20 to 24 minutes, rotating sheet halfway through baking. Transfer tart to cooling rack and let stand for 15 minutes. Transfer to cutting board, slice, and serve.

PASTA WITH CARAMELIZED ONIONS, PECORINO ROMANO, AND BLACK PEPPER

SERVES 4

We recommend preparing this dish with a pasta shape with nooks and crannies that will hold on to the sauce, such as campanelle or cavatappi. Shred the cheese on the large holes of a box grater. Napa Valley Naturals Organic White Wine Vinegar is our taste test winner.

- I pound pasta
 Salt and coarsely ground pepper
- I tablespoon unsalted butter2 cups caramelized onions
- 0 ounces shredded Pecorino Romano cheese (3/4 cup), plus extra for serving
- 1/4 cup chopped fresh parsley
- I tablespoon white wine vinegar
- 1. Bring 4 quarts water to boil in large pot. Add pasta and 1 tablespoon salt and cook, stirring occasionally, until al dente. Reserve $1\frac{1}{2}$ cups cooking water, then drain pasta and return it to pot.
- 2. While pasta cooks, melt butter in 10-inch skillet over medium heat. Add 1 tablespoon pepper and cook until fragrant, about 1 minute. Add onions and ½ teaspoon salt and cook, stirring occasionally, until onions are warmed through, about 4 minutes.
- **3.** Add Pecorino, parsley, vinegar, onions, and 1 cup reserved cooking water to pasta and stir to combine. Season with salt and pepper to taste. Serve, adjusting consistency with remaining reserved cooking water as needed and passing extra Pecorino separately.