Sourdough Start-Up

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Making a starter requires time but very little effort. And once it's established, it opens up a whole new universe of homemade breads with sourdough's trademark tang.

MY GOALS

- **A straightforward sourdough starter recipe**
- **An easy feeding routine**
- **Hands-off maintenance**

Making a sourdough starter is actually dead simple: All you have to do is stir together

My foray into sourdough baking wasn't as romantic as some. I wasn't bequeathed an heirloom starter from my grandmother. Nor did I acquire one that's ripe with exotic flora while traveling abroad. I was a hobbyist baker when I made my first homegrown batch, and I was tempted to do so not only because I love the tang, complexity, and chew of a good sourdough loaf but also because I was intrigued by the idea of making bread entirely from scratch.

Making a sourdough starter is actually dead simple: All you have to do is stir together some flour and water and let it ferment for a couple of days at room temperature. As the mixture sits, yeast and bacteria already present in the flour wake up and start to multiply, and the mixture evolves into a damp, bubbly, boozy-scented blob. This is your starter—a culture of yeast and bacteria. From here, you help it grow strong by "feeding" it regularly, which might sound

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intimidating but really isn't once you get the hang of it. You simply combine a small amount of the starter with more flour and water until, after a few weeks, it becomes chock-full of enough bacteria and yeast that a portion can flavor and leaven bread. You can save what's left, and as long as you keep it healthy and alive, you can continue to use it for months and even years. The process is a commitment but one that's rewarding—even addictive. Just ask some of my colleagues, who've confessed to extreme measures like taking their starters on airplanes so as not to miss a feeding.

So why don't more home bakers try making their own starter? My guess is that the process seems mysterious and complicated. That's why I decided to come up with a straightforward, reliable recipe for creating and maintaining a sourdough starter—so even the most inexperienced baker would feel confident trying it. Then I wanted to develop two sourdough bread recipes: one that would be the easiest, quickest way to use the starter in a baked loaf and another more involved recipe that would produce the most classic form of sourdough, the rustic loaf known as *pain au levain.*

The starter is the key to achieving the distinctive tang associated with sourdough—but the prospect of regularly "feeding" a live culture can be intimidating for some. A low-maintenance starter makes this ancient technique approachable for even the most inexperienced baker.

Culture Club

Mixing flour and water is a pretty straightforward business, but I did make a few discoveries about even these two simple ingredients. After making a few slow-to-grow starters that took a week or longer to establish themselves, I learned that starting with a 50/50 mix (by weight) of **whole-wheat** and **all-purpose flours** worked much faster than using just all-purpose flour because the whole-wheat flour provided some extra nutrition for the budding organisms. Using filtered or bottled water was also important; when I used tap water, the chlorine it contains weakened the starter, causing it to die.

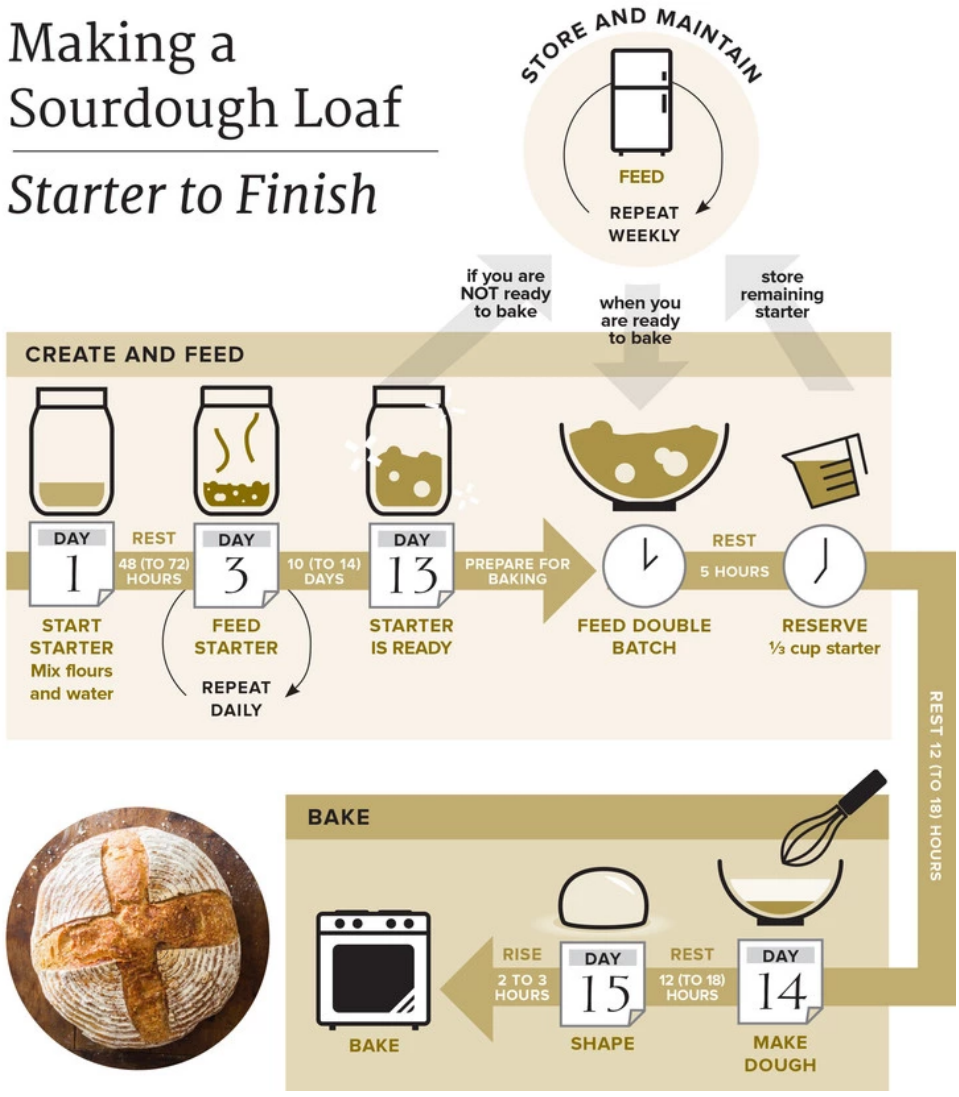
After mixing the flours and water, I waited. After two or three days at room temperature, the loose, batter-like mixture was bubbly and fragrant, a sign that microorganisms were alive and consuming the nutrients in the flour. It wasn't a pleasant aroma at this point (it was like sour milk or dirty socks), but it was a positive sign that the starter was established.

Time to Hit Refresh

The goal of the next stage is to get those microorganisms thriving by regularly refreshing their food supply. The method—mixing a small amount of the starter with fresh flour and water and leaving it to sit at room temperature—is pretty standard across recipes; it's just the frequency that varies. Many recipes call for feeding every 12 hours, but this was overkill. I found that every 24 hours was totally sufficient.

It took about two weeks of daily feedings using my mix of all-purpose and whole-wheat flours before my starter was ready, or mature. At this point it had a pleasant aroma (no more funky smell), was bubbly, and nearly doubled in size 8 to 12 hours after the last feeding. From here, I could use some of my starter to bake a loaf, or I could shift it into maintenance mode. I'd get to the bread baking soon enough, so I moved on to figuring out the easiest, least-involved method for keeping my starter healthy between bakes.

Low Maintenance



Why Discard Starter?

Each time you feed your starter, you measure out a portion of existing starter, add flour and water to that, and throw out the rest. Why? As the microorganisms consume nutrients, they also produce waste, so disposing of some starter helps refresh their living environment. Also, if you kept all the starter, you'd have enough to fill a bathtub after a few weeks.

Is Your Starter Ready for Baking?

A starter that is ready for baking will double in size 8 to 12 hours after feeding. Want to double-check that it is ready? Here's a quick test you can do to find out. Drop a spoonful of starter into a bowl of water. If it floats, the culture is sufficiently active. If it sinks, let your starter sit for another hour or so.

During the maintenance stage, you aren't trying to multiply the number of microorganisms but rather simply to maintain what you have and keep the starter healthy through regular feedings (ideally, it will live indefinitely). My goal would be to keep the feedings down to as few as possible—which would mean storing the starter in the fridge. (At room temperature, the bacteria and yeast would be more active, consuming food more quickly and requiring more feedings.) From then on, I'd just have to take the starter out every so often, refresh the food supply, and give the culture some time at room temperature to wake up and start feeding and reviving before putting it back in the fridge. What I needed to determine was just how often I would have to feed the starter and how long I would need to leave it out when I did.

First I tried feeding my starter once a week and leaving it out for 12 hours before putting it back in the fridge. But it began looking gray and smelling sour, as if all those millions of microorganisms were feeling sick. After talking to **Ciril Hitz**, a friend who is also an award-winning master baker, I learned that 12 hours was too long—the yeast and bacteria consumed the food so fast that they starved over the course of the next week in the fridge. Hitz suggested leaving the starter out for just 5 hours, which would be long enough for the culture to get a foothold but not consume all of the food. In the fridge, the starter would continue to feed and grow at a very slow pace, staying healthy all the while.

This worked beautifully. I also learned that during this stage it was best to use just all-purpose flour. The whole-wheat flour proved a bit too nutritious, causing the starter to grow too fast and get too sour.

When I wanted to bake with my starter, I fed it a double portion so that I would have plenty to use for baking, plus leftovers to continue to store. I left the starter out at room temperature for 5 hours as before. It then needed an additional 12 to 18 hours in the refrigerator to rest—and it was ready to go.

In the end, my starter recipe was pretty simple: Mix the flours and water, let it sit for a few days, feed it daily for 10 to 14 days, and then feed it just once a week. Whenever I wanted to bake, I just gave it one last big feeding, let it go for a day, and that was it.

Culture in Action

Now I just needed to iron out the bread recipes. Our **Almost No-Knead Bread** makes a great artisanal loaf with minimal work; it seemed like a good framework to start with. It's called "almost" no-knead because while it relies mainly on gluten's ability to develop structure in a dough on its own given enough time (and plenty of water), kneading the dough for a few seconds before shaping it evens out the texture and ensures a well-risen loaf. Baking the loaf in a Dutch oven also helps it rise well and creates a crackly-crisp crust.

Technique: Proof in the Oven

Sourdoughs can take much longer to rise than doughs leavened with commercial yeast. That's because the bacteria and yeast in a sourdough metabolize starch much more slowly than baker's yeast does, and they also prefer slightly higher temperatures for proofing. You can't do much about the metabolism of the sourdough's bacteria and yeast, but you can accommodate their temperature needs. That's why we set the shaped loaf, in the pot, in the

oven and place a pan of hot water beneath it. This creates a warm, steamy environment—a "proofing box"—that encourages the dough to rise and keeps it from drying out.

To make a no-knead sourdough version, all I needed was flour, salt, and water, along with my starter. The only question was, how much starter did I need to swap in for the commercial yeast? After a few trials, I settled on 1/3 cup of starter; this gave me a dough that proofed and baked in the same time frame as in the original recipe. The loaf had the bold tang, open crumb, and perfectly crisp, burnished crust I was after. My pain au levain recipe required more work, but it delivered complex flavor and a classic appearance.

With that, I had the straightforward, reliable starter recipe I'd hoped for, as well as two bread recipes to use it in. If you just give it a try, I'll bet you'll be surprised at how easy the world of sourdough is. What could be more satisfying than being part of the act of creating bread from the very first step?

KEYS TO SUCCESS

A straightforward sourdough starter recipe

For a robust culture of natural bacteria and yeast, we stick with mixing just flour and water (instead of the apple, sugar, or grapes called for in some recipes). Swapping in some whole-wheat flour for a portion of the all-purpose flour provides extra nutrition to help the culture quickly gain a foothold quickly.

An easy feeding routine

We refresh the starter's food supply by mixing a portion with fresh flour and water daily (not twice daily as in many recipes) for 10 to 14 days.

Hands-off maintenance

To keep the culture healthy between bakes, we learned that we could feed the starter just once a week by letting it sit out for 5 hours at room temperature after feeding it (which gives the bacteria and yeast time to get a foothold) and then moving it to the fridge, where the starter would continue to grow but would do so slowly. Come time to bake, it would retain plenty of activity and would require one last feeding before it was ready to go.