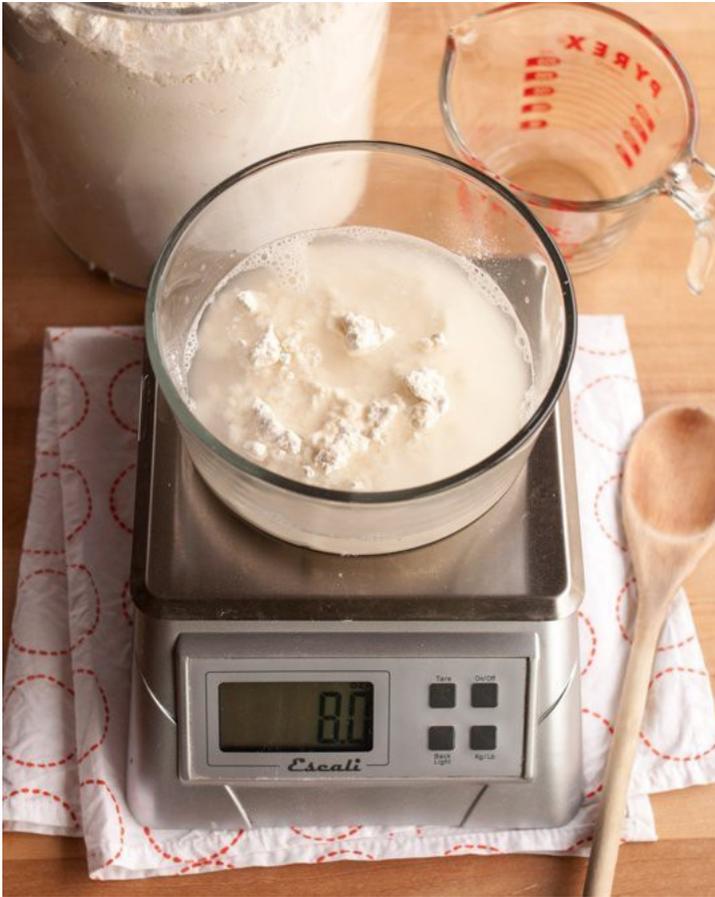


How To Make Your Own Sourdough Starter

<http://www.thekitchn.com/how-to-make-your-own-sourdough-starter-cooking-lessons-from-the-kitchn-47337>



Not all of us are so lucky to have a sourdough starter passed down to us from our bread-baking forefathers and foremothers. Thankfully, making a fresh batch of starter is as easy as stirring together some flour and water and letting it sit. That's right! No expensive heirloom starters, mashed up grapes, or mysterious rituals required - just flour, water, and a little bit of patience.



Equal parts flour and water to make a sourdough starter

What Is Wild Yeast?

Before you get started, let's talk about wild yeast, which is the key to a sourdough starter. Before we had active-dry yeast or instant yeast, we had wild yeast. Actually, we still have wild yeast. It lives *everywhere* - in the air, in a bag of flour, on the surface of grapes. Domesticated commercial yeast replaced wild yeast for most baking because it's easier for companies to mass produce, it's easier for bakers to store and use, and it proofs our breads and pastries in a fraction of the time.

By contrast, wild yeast can be fussy and finicky. It needs a medium, a sourdough starter, in order to be useful to bakers. This medium has to be constantly maintained and monitored. Wild yeast also likes cooler temperatures, acidic environments, and works much more slowly to proof breads.

So why bother? Because wild yeast is amazing stuff! The flavor and texture we can get from breads and other baked goods made with wild

yeast are no contest to breads made with commercial yeast - the flavors are more complex and interesting, the texture is sturdier and more enjoyable to chew.

What Is a Sourdough Starter?

A sourdough starter is how we cultivate the wild yeast in a form that we can use for baking. Since wild yeast are present in all flour, the easiest way to make a starter is simply by combining flour and water and letting it sit for several days. You don't need any fancy ingredients to "capture" the wild yeast or get it going - it's already there in the flour. (Also, the yeast adapts to whatever environment it is in. So even if your cousin in San Francisco gives you some sourdough starter, it will eventually no longer be true San Francisco sourdough, but rather New York sourdough or Austin sourdough or London sourdough.)

After a day or two, bubbles will start to form in the starter, indicating that the wild yeast is starting to become active and multiply. To keep the yeast happy, we feed the starter with fresh flour and water over the next several days, until the starter is bubbly and billowy. Once it reaches that frothy, billowy stage, the starter is ready to be used.



Ripe, bubbly starter, ready to be used.

Using Whole Grain Flours to Make a Starter

This recipe uses regular, everyday all-purpose flour, but you can certainly make sourdough using whole wheat, rye, or any other kind of flour. Wild yeast is everywhere, after all!

If this is your first time making sourdough, I'd recommend starting with all-purpose flour because it tends to behave the most predictably. If you're feeling ready to branch out, just start feeding the starter with whatever whole grain flour you would like to use for baking. Personally, I keep a constant batch of all-purpose sourdough starter in my kitchen, and if I want to make a rye starter or a whole wheat starter, I scoop 1/4 cup from my all-purpose starter and use that as the seed for a new starter with the whole grain flour.

How to Use This Starter in Bread Recipes

This starter uses equal parts flour and water, a 1:1 ratio, which I find to be the most versatile for baking. To use this starter in any recipe, take a look at the ratio of flour and water the recipe is calling for in *their* starter. Next time

you feed your starter, just feed it the ratio of water and flour called for in the recipe. If you want to stick more closely to the recipe's sourdough, just scoop out 1/4 cup of your starter and feed it with the ingredients called for in your recipe's starter.

Once you're done with your recipe, go back to feeding your starter equal parts flour and water.

Use a 2-quart glass or plastic container for your starter. Use a scale to weigh the flour and water if at all possible.

How To Make Your Own Sourdough Starter

Makes 4 cups



What You Need

Ingredients

All-purpose flour (or a mix of all-purpose and whole grain flour)

Water, preferably filtered

Equipment

2-quart glass or plastic container (not metal)

Scale (highly recommended) or measuring cups

Mixing spoon

Plastic wrap or container lid

Instructions

Making sourdough starter takes about 5 days. Each day you "feed" the starter with equal amounts of fresh flour and water. As the wild yeast grows stronger, the starter will become more frothy and sour-smelling. On average, this process takes about 5 days, but it can take longer depending on the conditions in your kitchen. As long as you see bubbles and signs of yeast activity, continue feeding it regularly. If you see zero signs of bubbles after three days, take a look at the Troubleshooting section below.

Day 1: Make the Initial Starter

4 ounces (3/4 cup + 2 tablespoons) all-purpose flour

4 ounces (1/2 cup) water

Weigh the flour and water, and combine them in the container. Stir vigorously until combined into a smooth batter. It will look like a sticky, thick dough. Scrape down the sides and loosely cover the container with plastic wrap or the lid (left ajar).

Put the container somewhere with a consistent room temperature of 70°F to 75°F (like the top of the refrigerator) and let sit for 24 hours.

Day 2: Feed the Starter

4 ounces (3/4 cup + 2 tablespoons) all-purpose flour

4 ounces (1/2 cup) water

Take down your starter and give it a look. You may see a few small bubbles here and there. This is good! The bubbles mean that wild yeast have started making themselves at home in your starter. They will eat the sugars in the the flour and release carbon dioxide (the bubbles) and alcohol. They will also increase the acidity of the mixture, which helps fend off any bad bacterias. At this point, the starter should smell fresh, mildly sweet, and yeasty.

If you don't see any bubbles yet, don't panic - depending on the conditions in your kitchen, the average room temperature, and other factors, your starter might just be slow to get going.

Weigh the flour and water for today, and combine them in the container. Stir vigorously until combined into a smooth batter. It will look like a sticky, thick dough. Scrape down the sides and loosely cover the

container with plastic wrap or the lid (left ajar). Put the container somewhere with a consistent room temperature of 70°F to 75°F (like the top of the refrigerator) and let sit for 24 hours.

Day 3: Feed the Starter

4 ounces (3/4 cup + 2 tablespoons) all-purpose flour

4 ounces (1/2 cup) water

Check your starter. By now, the surface of your starter should look dotted with bubbles and your starter should look visibly larger in volume. If you stir the starter, it will still feel thick and batter-like, but you'll hear bubbles popping. It should also start smelling a little sour and musty.

Again, if your starter doesn't look quite like mine in the photo, don't worry. Give it a few more days. My starter happened to be particularly vigorous!

Weigh the flour and water for today, and combine them in the container. Stir vigorously until combined into a smooth batter. It will look like a sticky, thick dough. Scrape down the sides and loosely cover the container with plastic wrap or the lid (left ajar). Put the container somewhere with a consistent room temperature of 70°F to 75°F (like the top of the refrigerator) and let sit for 24 hours.

Day 4: Feed the Starter

4 ounces (3/4 cup + 2 tablespoons) all-purpose flour

4 ounces (1/2 cup) water

Check your starter. By now, the starter should be looking very bubbly with large and small bubbles, and it will have doubled in volume. If you stir the starter, it will feel looser than yesterday and honeycombed with bubbles. It should also be smelling quite sour and pungent. You can taste a little too! It should taste sour and somewhat vinegary.

When I made my starter here, I didn't notice much visual change from Day 3 to Day 4, but could tell things had progress by the looseness of the starter and the sourness of the aroma.

Weigh the flour and water for today, and combine them in the container. Stir vigorously until combined into a smooth batter. It will look like a sticky, thick dough. Scrape down the sides and loosely cover the container with plastic wrap or the lid (left ajar). Put the container somewhere with a consistent room temperature of 70°F to 75°F (like the top of the refrigerator) and let sit for 24 hours.

Day 5: Starter is Ready to Use

Check your starter. It should have doubled in bulk since yesterday. By now, the starter should also be looking very bubbly - even frothy. If you stir the starter, it will feel looser than yesterday and be completely webbed with bubbles. It should also be smelling quite sour and pungent. You can taste a little too! It should taste even more sour and vinegary.

If everything is looking, smelling, and tasting good, you can consider your starter ripe and ready to use! If your starter is lagging behind a bit, continue on with the *Day 5 and Beyond* instructions.

Day 5 and Beyond: Maintaining Your Starter

4 ounces (3/4 cup + 2 tablespoons) all-purpose flour

4 ounces (1/2 cup) water

Once your starter is ripe (or even if it's not quite ripe yet), you no longer need to bulk it up. To maintain the starter, discard (or use) about half of the starter and then "feed" it with new flour and water: weigh the flour and water, and combine them in the container with the starter. Stir vigorously until combined into a smooth batter.

If you're using the starter within the next few days, leave it out on the counter and continue discarding half and "feeding" it daily. If it will be longer before you use your starter, cover it tightly and place it in the fridge. Remember to take it out and feed it at least once a week - I also usually let the starter sit out overnight to give the yeast time to recuperate before putting it back in the fridge.

How to Reduce the Amount of Starter:

Maybe you don't need all the starter we've made here on an ongoing basis. That's fine! Discard half the starter as usual, but feed it with half the amount of flour and water. Continue until you have whatever amount of starter works for your baking habits.

How to Take a Long Break from Your Starter:

If you're taking a break from baking, but want to keep your starter, you can do two things:

1. **Make a Thick Starter:** Feed your starter double the amount of flour to make a thicker dough-like starter. This thicker batter will maintain the yeast better over long periods of inactivity in the fridge.
2. **Dry the Starter:** Smear your starter on a Silpat and let it dry. Once completely dry, break it into flakes and store it in an airtight container. Dried sourdough can be stored for months. To re-start it, dissolve a 1/4 cup of the flakes in 4 ounces of water, and stir in 4 ounces of flour. Continue feeding the starter until it is active again.

Troubleshooting Your Sourdough Starter

- **No Signs of Bubbles or Yeast Activity After Several Days:** Add a pinch of commercial yeast next time you feed your starter - this can help kickstart yeast activity. Also, make sure your starter is being kept somewhere warm and stir *vigorously* when you stir in the fresh flour and water. If it starts to smell spoiled, discard it and start again.
- **Still No Signs of Activity!** Something's not going right. Discard your starter and begin again with a clean container. Use filtered water if at all possible. If it's very warm in your kitchen, also be sure that the starter is not too hot - if you're sweating, your yeast is also not so happy. Try to keep the starter around 70°F to 75°F.
- **A Thin Layer of Liquid Collects on Top:** This often happens if your water to flour ratio is off (too much water) or if your starter has gone too long between feedings. Just pour off this layer off and feed your starter as normal. Be sure you're adding the right amount of flour and water (slightly more flour than water by volume) - weigh your ingredients if at all possible.
- **The Top of My Starter Looks Moldy or Is Tinged Red:** I've read in several places that it's ok to scrape this layer off (or pour it off, if it's liquidy), but personally, I'd discard the starter and start again. If you can't bear to discard an old starter, try to scoop about 1/4 cup from the bottom of the container and use this to seed a new batch of flour and water.

This post has been updated. Originally published July 2008.