1

SIMPLE SOURDOUGH BASICS

A SIMPLE SOURDOUGH SCHEDULE

What is the most important part of sourdough success? Having a sourdough schedule that you can stick with. And what kind of schedule is the easiest to stick with? A simple one! So below we will go over our simple approach to keeping the crew in sourdough.

Think of sourdough as a pet — it has daily and weekly needs. If you meet those needs, it will reward you. If you don't, it won't. The problem is many people's sourdough falls into neglect. They can't figure out a schedule to manage it that doesn't at the same time drive them mad. Here is our simplified sourdough schedule.

Note, since we mill only once or twice a week, we mill enough flour to cover all the other days of feeding at the same time. Milling for feeding is done on the day before bake days, since the mill is already out. The extra flour is stored in the fridge or freezer. Since you are only adding a few spoonfuls to your starter at a time, if you are worried that the cold might negatively affect it, scoop it out about 15 minutes before you feed it. We have not had any issues going straight from freezer to feeding.

Starters Take Time

Making your own sourdough starter is not hard, but it does take time. After 3 weeks, your starter will be ready to make some tasty

treats like pancakes, crackers, muffins, and English muffins. Over the next several months, the starter will continue to mature, and its rising power will increase quite a bit. At first, the baked goods you make using your new starter may taste fairly sour. Over time, as your starter matures, this sour taste mellows. Using recipes that include baking soda with a new starter can help you get through those first weeks and months until your starter's taste has mellowed and its leavening power optimizes.

Not only does sourdough take time but you also must be consistent. This goes both for when making your starter and when

BABIES AND BACKUP STARTER

Early one morning, I heard a shriek in the kitchen. Not quite a scream, but the noise of immense sadness emanating from Jessica. I dashed out of my office to ask what had happened and saw her hunched over a glass jar — okay, not any glass jar, but her just starting to get to that mature, established sourdough starter stage glass jar. It also was the jar that our one-and-a-half-year-old had just poured a large amount of homemade salad dressing into… ruining the starter. Four months of work, almost entirely ruined in under 40 seconds. Jess was able to — after ten or so minutes of work — salvage a few spoonfuls of uncontaminated starter culture. It was just enough, but it was a close call we decided was never worth repeating.

It was a reminder that, every so often, you should make sure you back up your starter.

maintaining the starter's strength and health over time. We feed the starter twice a day; during the hottest times of the year, we will switch to three times a day.

This only takes a minute or so per day but helps protect the starter from mold growth and other problems. If you forget one day, it is no big deal. But if you neglect to work quick starter care into your routine, you will have a much harder time making consistent, successful sourdough.

HOW TO CREATE YOUR OWN SOURDOUGH STARTER

It doesn't take great skill or expense to create your own fantastic sourdough starter. What does it take? Time and consistent, though not time-consuming, care on your part. Some people suggest creating your starter using particular grains, such as rye, but we used spelt and had no issues achieving success.

Before my wife started her sourdough culture, she read numerous resources, and was greatly helped by the tips given at the Traditional Cooking School. Our process is very similar to the one they recommend.

Start with a clean pint glass jar or a small bowl. Clear glass is particularly useful as it allows you to see activity in your new starter from the sides in addition to the surface. In the jar, combine ¼ cup of whole spelt or whole wheat flour and 3 tablespoons filtered water. Some people like to measure by weight rather than volume. That takes more time and precision than we feel is necessary at this stage, but if you would like to do that, measure an equal amount (by weight) of flour and water; about 30 grams of each would be good for creating a new starter.

Mix together thoroughly, scrape down the sides, and loosely cover with a clean cloth. We like to use a cloth napkin for this purpose, held in place by a rubber band if needed. Allow to sit for 12 hours in a warm spot out of direct sunlight.

After approximately 12 hours, remove half of the mixture and discard; chickens or pigs, compost piles, or worm bins will all appreciate this healthy addition to their regular diet.

Now add another ¼ cup of flour and 3 tablespoons filtered water. Mix together thoroughly, scrape down the sides, cover, and let sit for another 12 hours.

This is the basic routine for getting your starter going. Every 12 or so hours, remove half of the mixture, add ¼ cup flour and 3

tablespoons filtered water, stir well, scrape down sides, cover with a cloth, allow to sit 12 hours, and then repeat. Between days 4 and 7, you should start to see bubbles and sniff a slightly sour smell — the beginnings of your starter's soon to be rich and diverse microbial mix!

If you are using wheat flour, once your starter is active, it will double in the jar and large air holes will be visible through the sides. Spelt, and perhaps other traditional grains, does not increase in size so noticeably, but you will see lots of tiny bubbles both on the sides and on top. This is most likely due to the lower gluten content and different protein profiles among the various grains.

After about 3 weeks, your starter is ready to use. At this point, you can also reduce the twice-daily feedings to 1 tablespoon of flour and just less than 1 tablespoon of water. Continue to scrape the sides and keep covered with a cloth.

Below are step-by-step instructions for making your own starter from scratch.

SIMPLE STEP-BY-STEP INSTRUCTIONS FOR WHOLE GRAIN SOURDOUGH STARTER

Day 1 morning: Combine ¼ cup whole grain flour and 3 tablespoons filtered water in a clean pint jar. Stir well, scrape down sides, cover loosely with a cloth.

Day 1 evening: Remove half of your starter and add ¼ cup whole grain flour and 3 tablespoons filtered water. Stir well, scrape down sides, cover loosely with a cloth.

Day 2 morning: Remove half of your starter and add ¼ cup whole grain flour and 3 tablespoons filtered water. Stir well, scrape down sides, cover loosely with a cloth.

Day 2 evening: Remove half of your starter and add ¼ cup whole grain flour and 3 tablespoons filtered water. Stir well, scrape down sides, cover loosely with a cloth.

WHAT ABOUT STARTERS THAT USE ALL PURPOSE OR BREAD FLOUR?

As we have already explained, we typically use whole grains in our sourdough starter, but what if you have or are given a starter that is made with all purpose or bread flour? The great thing is you can use it for all the recipes in this book. If you want, you can easily convert an all purpose flour starter to a whole grain one simply by feeding it a whole grain flour of your choice. Whole wheat, spelt, einkorn, and rye all work great in our recipes. You can also continue to feed it with all purpose or bread flour. Starters that don't use whole grains are quite different in consistency, but they will still work well — in fact, some people who make whole grain sourdough breads maintain their starters with all purpose flour.

Day 3 morning: Remove half of your starter and add ¼ cup whole grain flour and 3 tablespoons filtered water. Stir well, scrape down sides, cover loosely with a cloth.

Day 3 evening: Remove half of your starter and add ¼ cup whole grain flour and 3 tablespoons filtered water. Stir well, scrape down sides, cover loosely with a cloth.

By this time, you should start to see bubbles forming on the sides and top of your starter. This lets you know you are on the right track. Over time, you will see more activity as the starter becomes stronger. Continue to remove ½ of your starter and feed it with ¼ cup whole grain flour and 3 tablespoons filtered water twice a day for 3 weeks. After 3 weeks, your starter is ready to use but may not be strong enough for making breads just yet. Continue to feed twice a day, but you no longer need to discard half of the starter. So that I don't have way more starter on hand than I need at this point, I switch to adding just 1 tablespoon of flour and 1 scant tablespoon of water at each feeding.

Now it's time to move from making a starter to maintaining it.

MAINTAINING YOUR SOURDOUGH STARTER

Congratulations! Your starter is officially no longer a newborn! But it still has a number of months to go before it is a mature sourdough starter. As mentioned above, you can now reduce the amount of water and flour fed to your sourdough twice daily. You also no longer need to discard a portion of the starter during these during these feedings. But how much sourdough starter should you keep on hand?

I like to keep about ⅛ to ½ a cup of starter in my main jar at a time. Many recipes require more starter than I keep on hand. For instance, the English muffin recipe requires ½ cup of starter, which I will need the night before I plan to make them. So, the morning before, I will feed the starter enough flour and water to make ½ cup plus ⅛ to ½ cup extra. Basically, feed enough to get the amount for the recipe along with sufficient leftover starter.

You may wonder, why keep so little starter on hand? Since you are feeding it twice daily your starter will grow in size every day until you remove some for baking. Also, by keeping a smaller amount on hand, it means that, two feedings before we bake, the starter requires a larger feeding. In our experience, this larger feeding — usually doubling the amount in the jar — produces better results with our sourdough creations because it makes the starter quite vigorous and active.

Just to make sure it is clear, this oversized feeding takes place a full 24 hours before baking. So if we plan to make bread Saturday morning, on Friday morning the starter will get a larger feeding. Friday night, we will use the starter to make the dough that will then be baked Saturday morning. If we are going to make crackers Monday afternoon, then on Sunday afternoon or evening, we will make sure the starter is fed so that Monday morning, when we mix the dough, we have the right amount for the recipe and leftover starter.

Here are a few sample sourdough schedules to give you an idea how you can easily incorporate making sourdough a few times a week into your schedule.

A SIMPLE GUIDE TO GRAINS		
	PRICE PER POUND	NOTES
Soft White Wheat	$0.60	Generally used for pastries.
Hard White Wheat	$0.60	Whole grain, but tends to have a lighter texture.
Hard Red Wheat	$0.60	Typical bread grain used by many home bakers.
Emmer (Farro)	$1.40	Similar flavor and texture to spelt.
Rye	$0.70	Strong flavor, often used in small amounts with other grains.
Spelt	$1.10	Older grain, excellent flavor.
Kamut	$1.30	Nutty flavor, naturally lower in gluten.
Einkorn	$2.50	Considered an "ancient grain," only non-hybridized strain commercially available.

TWO RECIPE EXAMPLE SOURDOUGH SCHEDULE - EXAMPLE 1		
Monday	Morning	Feed starter to make 1¼ cups.
	Evening	Remove 1 cup starter. Prepare a double of English Muffin dough (page 26).
		Feed starter 1 tablespoon flour and scant 1 tablespoon water.
Tuesday	Morning	Feed starter. Bake English Muffins.
	Evening	Feed starter.
Wednesday	Morning	Feed starter.
	Evening	Feed starter.
Thursday	Morning	Feed starter.
	Evening	Feed starter.
Friday	Morning	Feed starter.
	Evening	Feed starter to make 2¾ cups.
Saturday	Morning	Remove 2½ cups starter. Make Waffles or Pancakes (page 42).
		Feed starter.
	Evening	Feed starter.
Sunday	Morning	Feed starter.
	Evening	Feed starter.

THREE RECIPE SOURDOUGH SCHEDULE - EXAMPLE 1		
Monday	Morning	Feed starter 1 tablespoon flour and scant 1 tablespoon water.
	Evening	Feed starter to make 1¼ cups.
Tuesday	Morning	Remove 1 cup starter. Make Cracker dough (Page 56).
		Feed starter.
	Afternoon	Bake Crackers.
	Evening	Feed starter.
Wednesday	Morning	Feed starter to make 1 cup.
	Evening	Remove ¾ cup of starter. Mix up Muffins (page 75).
Thursday	Morning	Bake Muffins.
		Feed starter.
	Evening	Feed starter.
Friday	Morning	Feed starter to make ½ cup.
	Afternoon	Remove ¼ cup starter. Make Artisan Bread dough (page 58).
	Evening	Feed starter and follow Artisan Bread recipe (refrigerate dough).
Saturday	Morning	Feed starter and follow Artisan Bread recipe.
	Afternoon	Bake Artisan Bread.
	Evening	Feed starter.
Sunday	Morning	Feed starter.
	Evening	Feed starter.

TWO RECIPE SOURDOUGH SCHEDULE - EXAMPLE 2		
Monday	Morning	Feed starter 1 tablespoon flour and scant 1 tablespoon water.
	Evening	Feed starter.
Tuesday	Morning	Feed Starter. Bake English Muffins.
	Evening	Remove ¾ cup of starter. Prepare Irish Soda Bread dough (page 49).
		Feed starter.
Wednesday	Morning	Feed starter. Make Irish Soda Bread.
	Evening	Feed starter.
Thursday	Morning	Feed starter.
	Evening	Feed starter.
Friday	Morning	Feed starter to make 1¾ cups.
	Evening	Remove 1½ cups starter and prepare a double of Empanada crust (page 72).
		Feed Starter. Prepare Empanada filling (page 70).
Saturday	Morning	Feed starter.
		Prepare and bake Empanadas.
	Evening	Feed starter.
Sunday	Morning	Feed starter.
	Evening	Feed starter.

THREE RECIPE SOURDOUGH STARTER - EXAMPLE 2		
Monday	Morning	Feed starter 1 tablespoon flour and scant 1 tablespoon water.
	Evening	Feed starter.
Tuesday	Morning	Feed starter to make ¾ cup.
	Evening	Prepare Scone dough (Page 40).
		Feed starter.
Wednesday	Morning	Feed starter to make ¾ cup. Bake Scones.
	Evening	Feed starter.
Thursday	Morning	Feed starter to ¾ cup.
	Evening	Prepare Banana Bread batter (page 87).
	Evening	Feed starter.
Friday	Morning	Bake Banana Bread.
	Evening	Feed starter.
Saturday	Morning	Feed starter to make ¾ cup.
	Evening	Prepare Cinnamon Roll dough (page 78).
Sunday	Morning	Feed starter.
		Bake Cinnamon Rolls.
	Evening	Feed starter.

WHY WATER IS SO IMPORTANT

Most people are on city or municipal water, which contains both chlorine and fluoride. These chemicals are problematic for home food preservation and fermentation, as both act as microbe murderers. They can significantly weaken if not outrightly undo your efforts.

So, if you are on treated water, you will either want to install some type of filtration, especially to remove the chlorine and chlorine by-products or need to purchase distilled or similar water that is free of these chemicals that will adversely affect your attempts at sourdough.

Timing of Feedings and Finding Your Sourdough's Sweet Spot

The goal with your starter is to give it more food, right when it is at the peak of its activity. But how can you tell that your starter is ready? If you look carefully at your starter, instead of the top surface sitting flat, it will have a slightly domed shape from the strength of the fermentation taking place. This, along with the presence of air bubbles all over the starter (which is one reason we prefer a glass container, as it allows you to see this activity beyond just the surface) are the signs that tell you it is ready for another feeding.

If there are bubbles, but the top has fallen back down or flattened out, you may have waited too long. As a general rule, we feed the starter in the morning and evening, approximately (but not slavishly) 12 hours apart. During the summer, particularly on very hot days when our house will often approach the high 70s, these clues let us notice that sometimes our starter benefits from an additional afternoon feeding.

The Not-So-Uncommon Failed Sourdough Starter

Our first attempt at sourdough came over a decade ago. After following some directions with extreme diligence for over a week to get our first starter going, Jessica made our first loaf of sourdough bread. The cookbook said the starter would be ready for bread making in just 7 days. The bread wasn't bad… if you enjoy eating a cross between completely sweetless Sour Patch Kids mixed with overwatered concrete. Needless to say, between our early failures and adding two kids to our crew in a little over two years, we dropped sourdough.

This is not an uncommon mistake (nor uncommon advice in a number of books!); many new sourdough makers become discouraged by their early only semi-edible results and toss their starter and sourdough aspirations in the compost pile or trash can.

A good starter needs around 3 to 4 months to achieve an acceptable, balanced flavor and sufficient strength to create good rise. It takes about 6 to 8 months to reach a solid, mature state. This is one

reason that if you can get sourdough starter from an experienced maker, you will save yourself many months.

In the meantime, if you start your starter from scratch, you don't have to take care of your little sourdough baby for 3 months with no immediate payoff. Instead, after about 3 weeks — once you are getting good, consistent bubbly action and other signs of sourdough success — you can start with some of the simple recipes and options, especially crackers, pancakes and waffles, and English muffins. If you find these are a bit too tangy at first, slightly increase the amount of baking soda. Remember, with additional time, your starter will mellow and achieve an excellent flavor. Think of it like parenting: the challenging preteen and teen years eventually give way to the more mellow 20s if you persevere!

What to Do When You Need to Travel or Take a Few Days Off?

Life happens. Even with a great schedule, sometimes you won't get to your sourdough, or you will need to be away from home for a few days or longer. Kids end up in the ER. Cars break down. Potatoes need planting. Work calls you in for an extra shift. The stomach bug invades your family.

How can you avoid undoing all your hard work to get a great starter? Feed your sourdough and tuck it in the fridge for a few days, or even a week. It will be fine. When you get back to it, note that it may need a few days to wake up and regather its strength. But otherwise, your starter should still be its former excellent self.

Old-timers used to travel with their sourdough, but we think that the TSA and other agencies may frown upon such sourdough smuggling. Though, seriously, if you are away for an extended time, do not hesitate to find a way to take your DLS (dear little starter) with you. Maybe classify it as an "emotional support starter"?

Also, life with all its unexpected lessons is a good reason why sharing starters is such a great idea. When we began making kombucha many years ago, we shared scobies with dozens of people.

After a horrible brewing debacle that killed our scoby and a large (60-plus-gallon) batch of kombucha, we had to start over! But instead of having to order starter in or create one from scratch, we hunted down some of the many offspring of our scoby now spread far and wide among our friends and community, who were more than happy to return some of what we gave to them months, or sometimes years, before. We are now building up progeny of our sourdough starter throughout our area, knowing that one day something may happen to ours that others will help us remedy. It also isn't a bad idea to have your own backup starter. So let's talk about how.

The Need for a Backup Starter

It is important, as part of your schedule, to ensure you create a backup sourdough culture, for when things go wrong. Things like one of your kids dropping the starter and its container shattering into a million pieces, embedding countless shards of glass in your sourdough.

There are three ways to create a backup: freezer, fridge, and dehydrator. For the first method, freeze about ½ to 1 cup of your starter, right *after* feeding. You should rotate your frozen backup starter every 4 to 6 months. The second method is placing a backup in your refrigerator right *after* feeding. Feed the starter, and place about ½ to 1 cup in the coldest part of your fridge. Feed it once a week if possible. As with the freezer method, we suggest rotating it every 4 to 6 months. If you neglect to feed it weekly, you may want to rotate it sooner.

With the third method, take 1 cup of starter and spread it thinly on a dehydrator sheet. Dehydrate until it is a cracker-like consistency, and place it into an airtight bag. Put it back into your fridge or freezer.

Jessica prefers having at least two methods of backup: fridge and freezer. Given the exciting times our two-year-old is currently creating for the family, I am almost tempted to keep a few spare starters in every room of the house!

Waking Up Stored Starter

If you need to use a backup starter that is frozen or refrigerated, it will require a few days to "wake up" before it will be ready to use. For frozen starters, transfer them to the fridge and thaw 2 or so days. Once thawed, or when working with a refrigerated starter, allow it to come to room temperature. After pouring off any excess liquid sitting on top of the stored starter, scoop 4 tablespoons or so of it into a clean container. Feed it by adding 1 tablespoon of flour and just less than 1 tablespoon of water, mixing it all together well.

Allow it to sit for 12 hours and feed again. Resume the normal twice-daily feeding schedule. In 2 to 4 days, you should see a vibrant sourdough starter back in action. If, after 4 to 5 days, you are not seeing bubbles and other signs of sourdough life, or if mold or other problems take place, compost the starter and use your other backup or one you shared with a friend! This is unusual in our experience, but can happen.

Note that making your own starter isn't the only option on the table. Many places have people or groups that love to share starters. A number of companies and businesses now also sell starters. So let's briefly talk about these options.

Buying Starters

Many local artisan businesses now sell starters, and many larger companies, such as Cultures for Health, sell them nationally and internationally. You can now find starters in many specialty stores! While working on this book, we had the pleasure of trying out two starters from Cultures for Health! They are easy to activate, and once that's done, you are ready to go with a healthy, active starter in only one week! Cultures for Health has offered a 20% discount to our readers, good for one use on any sourdough cultures or supplies. (Just use the code DIYSD20.)

Borrowing Starters

Another great way to get sourdough going is to borrow starter from someone in your area. While buying starters isn't a bad option, shipping living things — such as a sourdough starter — is dicey business. Temperature, air, and so much else can weaken or outright kill a starter during shipment. With a local person, you run into none of these issues, and often can just barter, trade, or get pro bono. Don't worry if you are not given a whole grain starter. It can easily be converted simply by feeding it with your choice of whole grain flour. In my experience, it takes 3 or 4 days to begin adjusting to a different type of flour, but after that, you should be able to bake with it without issue.

COMMON PROBLEMS THAT CAUSE SOURDOUGH CONSTERNATION

Mold

Our dear daughter has created this problem by feeding the starter, and then not properly stirring and then scraping down the sides of the glass jar. The fresh sticky mixture, thinly spread up toward the top, is an inviting target for mold. My more conscientious wife has never had this issue, as after feeding, she takes a moment to scrape the sides of the jar. Also, every time she bakes with the starter (generally twice a week), she switches to a new clean jar.

If you neglect your starter, you may also run into mold. You can, if the mold is not too well established and over-running the starter, remove any liquid, and then take a clean tablespoon of starter from the bottom of the starter mixture — the mold usually forms on the top or on the sides of the jar. Feed this as normal, and give it 4 or so days to be brought back to health.

House Too Hot, House Too Cold

A sourdough starter prefers a temperature around 72° to 74°F.

For us, the house (unless the HVAC breaks) is rarely too hot, save in late July through late August. If your house is too hot, try keeping your starter in the coolest spot possible — this may be an interior closet or similar location. You may also need to feed it 3 instead of 2 times per day.

If your house is too cold, which is generally the more common conundrum, you should keep your starter in the warmest place possible, such as on top of your fridge (which is generally a few degrees warmer than elsewhere in your home) or on your stovetop.

If your house is really cold, then a heat mat may be the best option. These are inexpensive and have a low energy cost as well, especially compared to increasing the temperature of your entire home just for the sake of your sourdough. If you live farther north, or like to keep your house on the cooler side, this is a must for successful sourdough.

Starters should not be stored in direct sunlight! Sunlight is a natural antimicrobial — it kills bacteria and yeast, so it is not very compatible with the microorganisms that make sourdough success.

Cross Contamination

It's a bacteria-eat-bacteria world out there! If you do a number of other ferments, it is important to keep them somewhat separated. So, if you are a kombucha brewer, don't keep your sourdough starter right next to your kombucha tank. Making sauerkraut or pickles? They should sit on a different counter space than your sourdough. Same goes for tools and utensils. Any that are used across ferments need to be thoroughly washed after use.

Stainless steel is best, as wooden utensils can, even after a good washing with soap and water, contain a great deal of (good) microorganisms that can make their way into your other ferments. Since different ferments do best with slightly to very different mixes of microbes, cross contamination can be a small to catastrophic issue

in your kitchen. Best to avoid it all together and practice good personal and kitchen hygiene!

Metal and Sourdough?

Some people say you should never use metal kitchenware — spoons and other such implements — with your sourdough. You can use a dedicated wooden spoon if you want to, but we have always used our standard kitchen silverware (stainless steel) and other stainless steel kitchen tools. We have never, ever, ever had an issue. They are also vastly easier to clean and work with compared to wooden tools.

Too Sour

Your starter may need a few more months to mature. Or, for a mature starter, you may need to increase how often you are feeding it—remembering to remove some of the old sour starter before feeding.

Not Enough Rise

This again is sometimes because a starter is either immature and needs a few more months to gather its strength or because of inconsistent feeding. House temperature (too cool or too warm) can also cause this issue. If it gets rather hot in the summer (high 70s and above), you may need to feed your starter three times a day, since the increased temperatures will speed up its fermentation.

Address the underlying issues, and that should go a long way toward improving your starter's performance. You can also create "super starter," which we talk about in chapter 3, when you need max rising power.

EXCESS STARTER

What to do if you end up with too much starter? Perhaps you missed making anything for a week or so but kept feeding . . . and feeding . . . and feeding your sourdough faithfully, only for it to threaten to take over your entire kitchen!

You can use some of it to create backup starters, tossing it into a jar to keep in the fridge. But at some point, someone may begin to question your sanity if you start to run out of fridge space because of so many sourdough starters squirreled away. (I haven't done this to Jessica... yet... but we are getting close, especially now that she wants to start a third different sourdough starter!) Pancakes and waffles are a great way to dispose of excess starter; the recipes use a large amount. If you have animals, in particular, chickens or pigs, excess sourdough starter is an excellent addition to their diet; they will thrive from all the beneficial bacteria and yeast that your starter shares.

Excess starter is also fine to add to your compost or worm compost. With worm compost, only add in small amounts, such as a ½ cup or so at a time, so that it doesn't cause problems or attract pests.

Don't forget that people are often searching for sourdough starter, so don't be afraid to ask around to see if anyone in your area is in need.