



# Beginner's Sourdough Guide

HIGH HYDRATION, LONG FERMENTED, ORGANIC SOURDOUGH





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# Welcome

# 1

**So you want to make sourdough?** You've come to the right place. This guide is designed to give you the context, principles, and instructions for making your own long-fermented, high hydration sourdough bread. If you don't know a thing about fermentation or what in the world *high hydration* means, have no fear. I'll guide you along the way.

Sourdough bread is now a weekly staple in our home. The process of baking fresh bread from simple ingredients has become a life-giving anchor in our kitchen. It keeps us grounded in our weekly rhythm and reminds us to slow down. I hope sourdough bread lends the same ritualistic benefits to your kitchen as it has in ours.

**Why sourdough?** I'm often asked what makes sourdough so great compared to conventional yeasted breads. I find this question to be a reflection of our modern-day understanding of food. We've lost touch with so many traditional cooking practices, mainly because we've prioritized work that happens *outside* of the kitchen. But with the adoption of convenience foods and shortcuts, we've lost critical nutrient value and an appropriate appreciation for real food.

Sourdough bread (and other baked goods) simply utilize the magic of wild yeast and cultivated bacteria. Sourdough is the method that has historically been used to leaven baked goods before the advent of commercial yeast. The fermentation process that occurs with genuine sourdough is key to its superior digestibility.

The yeast and bacteria (contained within your sourdough starter culture) naturally ferment the grains as they consume their starch. This process helps pre-digest the proteins (gluten) within the flour and render the minerals and vitamins more bio-available. Sourdough (or sour-leavening) is one form of proper grain preparation. It is favored by proponents of whole-food diets because it allows three simple ingredients to become beautiful bread: water, flour, and salt.

Sourdough is a special blend of art and science. It's a simple yet mysterious process that is achievable by anyone who is willing to learn.

Sourdough bread (and pizza, pancakes, cookies, etc.) has become a game-changer in our family's pursuit of real food. With the addition of properly fermented grains, we can enjoy the foods we love without fear of gluten (or carbs), knowing we are consuming foods enjoyed by our ancestors who came before us.

I hope this guide gives you the confidence you need to master the basics of sourdough. I'd encourage you to approach this process with a humble and inquisitive spirit. Not being too quick to get frustrated or call it quits.

Happy baking,  
Liz Haselmayer

# A Few Definitions

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## SOURDOUGH

Sourdough is not a "flavor," nor does it indicate the type of flour used like "white" or "whole wheat" bread. Sourdough is a method of baking using *wild yeast* and natural fermentation to create a risen dough. You can make sourdough breads, pizzas, croissants, bagels, pretzels, etc. Anything that requires a yeast leaven can be made using the sourdough method.

## STARTER

A starter is simply a mixture of water and flour that has cultivated wild yeast and bacteria over time. The starter is used as the leavening agent in baked goods. A "starter" is a living community of yeast and bacteria that must be maintained properly.

## WILD YEAST

Wild yeast is everywhere in our environment. Fruit is constantly shedding it, it lives in our air, and it's found in the very flour we bake with. Wild yeast is what authentic winemakers use to ferment their grapes. It's what has been used for centuries as the leavening agent in baked goods.

## LACTIC ACID BACTERIA (LAB)

The lactic-acid-producing bacteria (lactobacilli) in sourdough starter is often what creates the "sour" flavor of naturally-leavened baked goods. The presence of the LAB is also why mold is rare and why your bread can stay fresh for 7 days without refrigeration.

## ACETIC ACID

"Acetic acid...is produced by the oxidation of ethanol by lactic acid bacteria and is the main constituent of vinegar. Acetic Acid is mainly produced in sourdough between 20°C/68°F and 25°C/77°F. Acetic acid is responsible for the tangy flavor of your sourdough or your sourdough bread." - The Quest for Sourdough

## FEEDING

A feeding is when you add fresh water and flour to your starter. During a feeding, you will take out (or discard) a portion of your starter. This is called the "discard." The discard is excellent soaked flour you can store in your fridge and use in pancakes, cookies, pizza dough, etc. DO NOT throw your discard away! After you've discarded all but a few teaspoons of starter, add in fresh flour and water and stir until combined. Be sure to feed your starter after each time you use it and for regular maintenance.

## FEEDING RATIOS

Feeding ratios can vary from 1:1:1 (equal parts remaining starter, fresh flour, filtered water) to 1:5:5 (1 part remaining starter, 5 parts fresh flour, 5 parts filtered water), and everything in between. Just keep in mind, the more water and flour you feed your starter, the longer your starter will take to "peak." There is a positive correlation between an increased ratio and the amount of time your starter takes to "eat through" all of the fresh food. This will come in handy when you plan your baking times around your peaked starter. If you want to mix your dough in 6-8+ hours, feed at a higher ratio (1:5:5). If you want to mix your dough in three hours, feed at a lower ratio (1:2:2).

## DISCARD

Discard (*verb*): Discard your starter by removing a portion of it before each feeding. If you're baking regularly, your consistent use of the sourdough starter constitutes as a natural "discard" so you may not have to store very much "unused" discard (noun) in your fridge.

Discard (*noun*): The portion of your starter removed from the jar before each feeding. This is wonderful fermented flour that can be used in a number of recipes.

# Definitions Continued 3

## BANNETON

A banneton, or proofing basket, is used during the dough's final proof to help give the dough shape and create the traditional sourdough ridges. Banneton sizes and shapes vary. Typically bannetons 6-8 inches wide are used for 500g loaves, while larger bannetons, 10 inches+ are used for 1kilogram loaves.

Banneton sizing:

500g boule loaf-- 7 inch round banneton

500g batard loaf -- 8-9 inch oval banneton

1kg boule -- 9-10 inch round banneton

1kg batard -- 12-14 inch oval banneton

## BREAD LAME

Pronounced "Lahm"

A bread lame is a tool used to score your sourdough bread. I like to hold a razor blade with my hands rather than a lame, but the choice is yours.

## BULK FERMENT

The bulk ferment is the first (often the longest) period of fermentation. The bulk proof occurs at room temperate or warmer (in a proofing drawer) and can last anywhere from 4-12+ hours.

## COLD PROOF

The cold proof is the second period of fermentation that occurs at a lower temperature (in the fridge). Cold proofing happens after your dough has been shaped and placed into its proofing basket. You can cold proof your dough for as little as one hour or as long as 24+ hours. Fermentation continues to occur during the cold proof but at a much slower rate. The yeast activity slows dramatically in colder temps but the bacteria remain relatively unchanged, which is why colder fermentation can lead to a more sour bread. A long cold proof is also ideal for maximum gluten breakdown.

## STRETCH AND FOLD

This is a method used to build the gluten in your dough. When bakers say they use a "no-knead" method, they are often using a form of "stretch and folds" to build gluten, compared to full-on kneading. To perform a "stretch and fold," grab a corner of your dough, stretch it straight up, and fold into the center of your bowl. Rotate your bowl 45 degrees and continue until you have made a full turn. For a quick visual, search "How to Stretch and Fold Sourdough" on youtube.

## HIGH HYDRATION

High hydration sourdough can range from 70-80% (or higher) hydration. Hydration levels refer to the level of water compared to the amount of flour. ex: 400g water + 500g flour = 80% Hydration

# Sourdough Variables 4

The world of sourdough is often overwhelming because there are **so many variables**. Below, I've outlined a few factors that can impact your bread to help give you ideas when the need for troubleshoot arises.

## **AMBIENT (HOUSE) TEMPERATURE + WATER TEMPERATURE**

The yeast and bacteria living inside a sourdough starter (culture) thrive best in temperatures between 70-82 degrees Fahrenheit. In colder homes (or in the winter) your sourdough will be much more sluggish than in warmer environments. If your house is chilly, try placing your starter or bread dough in the oven with the light on, or in a warm cabinet (perhaps above the fridge). If your home is consistently warmer, keep in mind your starter and dough will ferment at a much faster pace. Most professional bakers or online gurus use a proofing drawer that offers consistent temperatures and humidity. Water temperatures also impact the rate of fermentation. Aim for water temps (for your dough, not your starter) to be between 80-85 degrees--slightly warm to the touch.

## **WATER QUALITY**

The type of water used in your starter or bread dough can impact your bread immensely. I recommend filtered water or spring water. Distilled water or Reverse Osmosis water are sometimes *too* sterile.

## **FLOUR TYPE**

The type of flour used in your starter and bread dough is also critical to the process. Hard red wheat (as in bread flour) versus soft wheat (as in All Purpose) will lend themselves to different types of bread. Freshly milled whole wheat flour will also behave differently from partially sifted or refined flour.

## **STARTER HEALTH**

Your sourdough starter is a living culture that can vary in health over its lifetime. An active peaked starter will perform differently from an unfed starter. Both can be utilized but with varying results. If you're having issues with your starter, refer to the "Reading Your Starter" section later in the guide.

## **STARTER RATIOS + AMOUNTS USED IN YOUR DOUGH**

Measurements for the dough vary between 50-100g of starter for a 500-gram loaf and 100-150g of starter for a 1kg loaf. Keep in mind, the more starter added to your bread dough, the faster your bread will ferment. Feeding ratios for your starter also impact your starter's overall acidity and peaking times.

## **FERMENTATION TIME**

Fermentation time is the great wildcard in the game of sourdough. You can shorten your bulk ferment and lengthen the cold proof times to compensate. Your fermentation time will also be greatly impacted by the state of your starter when you mixed your dough and the ambient temperature during the bulk ferment.

# Materials & Dough Measurements

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## MATERIALS

Large mixing bowl, clean dishcloth, kitchen scale that weighs in grams, spatula, proofing basket, razor blade or sharp knife, flour, filtered water, unrefined salt (we love Jacobsens), rice flour (optional), parchment paper, a cooling rack, and a dutch oven or combo cooker

## MEASUREMENTS

### 500 GRAM LOAF

Ideal for a 6 to 8-inch banneton  
yields one medium-sized loaf

50-100g active starter

375-400g warm filtered water

500g bread flour

10g unrefined salt

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### 1 KILOGRAM LOAF (1,000 GRAMS)

Ideal for a 8 to 10-inch banneton  
yields one large loaf

100-150g active starter

750-800 warm filtered water

1 kilogram (1,000 grams) bread flour

20g unrefined salt

# Types of Flour

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It's important to **always** purchase organic flour. While wheat has not been genetically modified (yet), it is sprayed with Glyphosate (the active ingredient in RoundUp) to ripen the wheat just before harvest. Studies have shown that pesticide residue ends up in our food supply. Please buy organic wheat, if possible.

## BREAD FLOUR

Recommended for first-time bakers! This is a high protein flour (usually around 13%) compared to lower protein All Purpose flour.

**Brands: King Arthur Organic, Central Milling Company, Sunrise Flour Mill, One Mighty Mill, Janie's Mill**

## WHOLE WHEAT FLOUR

This creates a slightly denser loaf that can tend to taste more sour. If that's your thing, feel free to use a blend of whole wheat + bread flour.

**Brands: King Arthur Organic, Sunrise Flour mill, Jovial Einkorn Whole Wheat, Janie's Mill**

## EINKORN & KAMUT

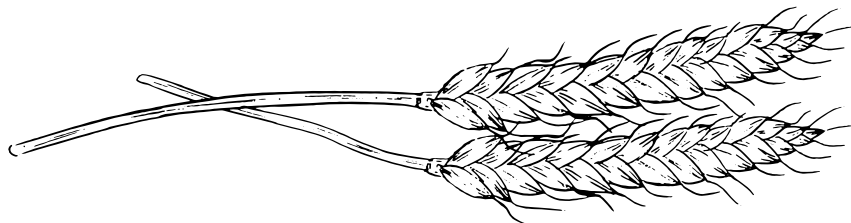
Both Einkorn + Kamut are ancient grains, meaning they have not been hybridized like modern wheat and can be easier for folks to digest.

**Brands: Jovial Einkorn, Food Nanny Kamut, Food to Live Khorasan (Kamut)**

## RYE & SPELT

Rye + Spelt are typical flours used in conjunction with bread flour or whole wheat flour. They can add unique flavor and a lead to a denser loaf.

**Brands: King Arthur Organic Rye, Thrive Sprouted Spelt, Bob's Red Mill Organic Spelt**





# Sourdough Starter

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Creating a starter from scratch:

## DAY ONE

Mix 50g flour and 50g filtered water in a glass jar. Cover loosely with a lid and wait 24 hours.

## DAY TWO

Discard 80% of your starter and add fresh flour + water (50g each). Cover loosely and wait 24 hours.

## DAY THREE-FIVE

Again, discard 80% of your starter and add fresh flour + water (50g each)

You might start to see some bubbles forming. **Don't panic if you don't.** It can take up to 10 days or longer. It's very common for your starter to be very active on day three and then mellow out from there.

## DAY SIX

If your starter is beginning to look active (forming bubbles), you can try to feed it twice a day using the same method as above. Feed once in the morning and once at night. You can also continue to feed once daily if your starter doesn't appear hungry after the 12 hours mark. (Review the "Reading Your Starter" section on the following page to decipher whether you need to feed 2x a day or once.

## DAY SEVEN-TEN

By now, your starter might be ready to bake with (mature). You can try the float test once your starter has peaked if you want to make sure it's ready. (spoon a small portion into warm water. if it floats, it's good to go!)

## Peaking:

Once your starter is **mature**, you'll notice it doubles in size after a feeding. I like to think of my starter in terms of the ocean tide, it will rise and fall according to when I feed it. You **always want to mix** your dough when your starter is at its peak (high tide). This is when your starter has doubled (or more) in size and is *just* starting to fall slightly.

## Starter Maintenance:

Once your starter is established, you'll need to maintain it properly to keep your yeast alive and active. Feed your starter after each time you use it in your bread. If you're not baking, you'll still need to feed it on a regular basis. You can either:

**Store your starter in your fridge and bring it out once a week to feed it**

**Leave your starter on your counter and feed it once a day**

Keep in mind, feeding ratios and house temperatures impact how quickly your starter metabolizes its fresh food. Consider all variables when deciding when/ how much to feed it. Your feeding schedule will likely look different in the summer than in the winter.

Personally, I usually bake 3 times a week so I will leave my starter out for 4 days, feeding it regularly each day, and then store it in the fridge for a few days if I know I'm not baking anytime in the next 48 hours.

# Reading Your Starter 8

Once you grasp the basics of sourdough, the process becomes quite intuitive. To encourage your baker intuition, I've outlined a few starter scenarios.

## **SIGNS YOUR STARTER IS HUNGRY**

Hungry starters are usually thin, pasty, and contain very small (frothy) bubbles or no bubbles at all. If there is liquid on top of your starter (called hooch) your starter is hungry.

## **SIGNS YOUR STARTER IS READY TO BAKE WITH**

Peaked starters have risen visibly, appear thick and marshmallow-y, and often smell sweet or yeasty. If your starter is thick and bubbly but hasn't risen, it may be due to the feeding ratios you used. You can try the float test to see if you should bake with your starter.

## **WHEN YOU SHOULD TRY A HIGHER RATIO FEEDING**

high proportion feedings are a great way to boost your starter. They ensure you are feeding the small amount of bacteria and yeast in the "remaining starter" with ample food. For example, a 1:5:5 feeding could look like 10g remaining starter, 50g fresh flour, 50g water. So often, beginners only discard a small portion and feed equal amounts of water and flour. But if we think of our sourdough starter as an army, we want all of our soldiers well-fed. By only keeping a small portion of your starter (10-20 grams), you ensure your team is well equipped for their mission. I like to think of my small remaining starter as the SEAL Team recruited for a special ops mission vs. maintaining a giant army (of starter).

If your starter is thick and bubbly but not rising, try a high proportion feeding. This will give your yeast and bacteria enough food to consume and *multiply*, leading to lots of CO<sub>2</sub> off-gassing (aka, bubbles).

## **WHEN YOU SHOULD TRY A LOWER RATIO FEEDING**

There *are* times when a lower proportion feeding is helpful. A lower feeding ratio will peak your starter faster and give less food for your starter to metabolize when it becomes sluggish in colder temps. If you have an unfed starter and you wish to mix your dough in a few hours, try leaving more starter behind and feeding closer to a 1:1:1 ratio (20g remaining starter, 20g fresh flour, 20g water). I don't recommend using small ratio feedings on a regular basis for fear that you might consistently underfeed your yeast and bacteria and smother them out. But lower feeding ratios can be helpful when you want to speed the rate at which your starter peaks or when ambient temperatures are cooler.

## **OTHER EXPERIMENTS TO TRY WITH YOUR STARTER**

Extending the time between feedings (even 36 or 48 hours) can result in a fast-peaking starter once you feed it. The extended "hungry" period seems to prime the starter for fast metabolizing of the starches in the flour. You can also experiment with making a loaf of bread with a completely unfed starter. This will need to be given a much longer bulk fermentation time (20 hours) but will show you the power of wild yeast.

# Baking Instructions

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## **MIXING THE DOUGH (WATER, FLOUR, STARTER)**

Using a food scale, measure your desired amount of active starter in a large mixing bowl (refer to the measurements page). Zero the scale and measure your filtered warm water (80-85 degrees is ideal). Use a spatula to combine the starter and water into a milky mixture. Next, zero the scale again to weigh your flour. Don't rush this step. Mix until all of your flour is hydrated. It's important to note at this point, you can't "overmix your dough" so there's no need to worry about too much mixing. Once combined, cover and let the dough rest.

## **ADD YOUR SALT**

After your dough has rested for 30 minutes to an hour, it's time to add your salt. Carefully measure your salt using your kitchen scale and sprinkle it over your dough. Next, gently work the salt into the dough. It will feel gritty at first, but as you continue, the salt will dissolve. Feel free to use a splash of water to help the salt dissolve quicker. This can take up to 10 minutes.

## **LET IT REST FOR 30 MINUTES - AN HOUR**

Once your dough has rested, you will notice the flour has continued to absorb the water and your dough's texture has changed slightly. The next phase of dough prep is used to build the gluten in your dough. You will perform four "stretch and folds" every 30 minutes, over the course of 2 hours. Cover your dough with a damp cloth between each stretch and fold.



### **STRETCH AND FOLD (ONE)**

Let dough rest for 30 minutes covered

### **STRETCH AND FOLD (TWO)**

Let dough rest for 30 minutes covered

### **STRETCH AND FOLD (THREE)**

Let dough rest for 30 minutes covered

### **STRETCH AND FOLD (FOUR)**

# Baking Instructions 10

## Continued

### **COVER WITH A DAMP CLOTH AND LEAVE THE DOUGH TO BULK FERMENT ON YOUR COUNTER OVERNIGHT (OR FOR 6-8 HOURS)**

This is the time the dough is fermenting via the yeast and bacteria's consumption of sugars. Bulk fermentation can take between 6-12 hours (or even 4 hours in warmer temperatures). Your dough should have visibly risen by 30-50% at the end of your bulk ferment. If you're using a wide bowl, it can be hard to see a visible rise, as the dough expands in all directions.

### **IN THE MORNING, SHAPE DOUGH + PLACE IT IN A PROOFING BASKET TO STORE IN THE FRIDGE (COLD PROOF)**

The goal when "shaping" your sourdough is to establish a sturdy... you guessed it... shape. But a key to this is building surface tension. Please refer to Food Geek's "SHAPING high hydration DOUGH | Shaping SOURDOUGH bread HOW TO" video on YouTube. Once your dough is shaped, you will then dust your loaf with rice flour (or regular) and place the loaf **seam-side-up** in your proofing basket and store it in the fridge (covered with a damp cloth) for at least an hour. This is called the **cold proof**, or retard. You can cold proof for as long as 24 hours (or even longer).

### **AFTER THE COLD PROOF, PREHEAT YOUR OVEN TO 500 DEGREES WITH DUTCH OVEN INSIDE**

### **ONCE OVEN IS HOT, TRANSFER YOUR COLD DOUGH TO PARCHMENT PAPER + SCORE**

There are two kinds of scoring. Decorative and functional. You will need at least one larger score to allow the bread to open up in your desired place (otherwise it will burst open naturally). The decorative scoring consists of smaller scores and is used for aesthetics only. Please refer to the YouTube references for videos on how to properly score your bread.

### **PLACE SCORED LOAF IN DUTCH OVEN, COVER, + REDUCE OVEN HEAT TO 450**

### **BAKE FOR 20 MINUTES COVERED AT 450 DEGREES**

### **REMOVE LID AND BAKE AN ADDITIONAL 25-35 MINUTES UNTIL DESIRED COLOR IS REACHED**

**LET THE BREAD COOL ON A COOLING RACK FOR AT LEAST 1 HOUR BEFORE CUTTING. (THE BREAD IS CONTINUING TO COOK AS IT COOLS)**

# Sample Timelines

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## **TO BAKE BREAD IN THE MORNING:**

**In the morning (day 1):** feed starter

**In the evening (day 1):** Mix the dough and perform all stretch and folds

**Overnight:** let the dough bulk ferment on your counter

**In the morning (day 2):** shape your dough and place it in the fridge for its cold proof

**After at least an hour:** Bake bread

## **TO BAKE BREAD IN THE EVENING:**

**Before bed (day 1):** feed starter

**In the morning (day 2):** Mix the dough and perform all stretch and folds

**During the afternoon (day 2):** let the dough bulk ferment on your counter

**In the early evening (day 2):** shape your dough and place it in the fridge for its cold proof

**After at least an hour:** Bake bread

## **FEEDING YOUR STARTER IN PREPARATION FOR BAKING**

Before you mix your dough, you'll want to feed your sourdough starter with enough time for it to peak. The peaking times vary depending on the amount you've fed your starter (feeding ratio) and the ambient temperature of your kitchen. Over time, you will learn how your particular starter functions within your unique kitchen environment. Here's a general rule of thumb: allow 6-8 hours for your starter to metabolize a 1:3:3 feeding ratio. Allow 2-4 hours for your starter to metabolize a 1:1:1 ratio feeding.

## **EXTENDING YOUR COLD PROOF**

Keep in mind, you can extend the cold proof of your dough if you wish to benefit from an even longer fermentation, prefer a more sour loaf, or aren't ready to bake your bread yet. I've baked bread after a 48 hours cold proof many times. It is often slightly over-proofed but still has a great taste. My recommendation is to aim for a cold-proof of *at least* one hour, but 24 hours is ideal for the continued breakdown of gluten. I often mix two loaves at a time, baking one after just an hour long cold proof and saving the other to bake the next day (24 hours later).



# Frequently Asked Questions 12

## **Why do I have to discard a portion of my starter before each feeding?**

Discarding the starter is necessary unless you want to maintain giant quantities of starter (which you don't). By discarding a portion of your starter, you can ensure you're giving the remaining starter ample food. When baking regularly, your use of the starter in your dough is a natural *discard* which is why we feed the starter after each usage. There is no need to do an additional discard after you've used your starter in a loaf of bread.

## **What should I do with the sourdough discard?**

Sourdough discard can be used in a number of recipes. If you are using the discard of a mature starter (one that has been established for at least a week), your discard simply a fermented flour and water combination. Add this to pancakes, waffles, pizza dough, buns, etc. If you are saving the discard from the early beginnings of your starter formation, add a sour medium to your recipes along with the discard to properly "soak" your flour. 1 tbsp of an acidic medium (lemon juice, whey, vinegar) to every cup of flour is a typical soaking proportion. Additional liquid is also needed. Refer to soaked flour recipes for more details.

## **How long does this discard last?**

Sourdough discard lasts in the fridge for several months. It's best to keep a large glass container of "discard" in the fridge and add to it whenever you feed your starter. It's common for a dark liquid to form on top. This is known as "hooch" and is the alcohol byproduct of the yeast's fermentation. Simply pour it off.

## **My sourdough starter looks active (forming bubbles) but it is not rising at all. What should I do?**

If your starter is bubbling but not rising and falling (peaking), try feeding your starter at a higher ratio. I suggest starting with a 1:5:5 feeding ratio. That would mean 10 grams starter, 50 grams water, and 50 grams flour. Be sure to mark where your starter is after feeding so you can measure its growth.

## **What are the must have materials to bake a loaf of bread?**

The items you **must have** are a kitchen scale that weighs in grams, a dutch oven or combination cooker, good flour and salt, and a mixing bowl with a clean dishcloth. The banneton proofing baskets are helpful if you bake regularly but I did not start out using them. A bread lame (for scoring) is also helpful (I personally just hold the razor blade in my hand to score) but a very sharp knife will work too.

## **How should I store my sourdough bread?**

Sourdough bread keeps nicely on the countertop in an airtight container for 5-7 days. Try not to store it in the fridge, as it will get stale faster. If you don't consume your loaf within 5 days, (how could that be?) you can slice your bread and store it in the freezer for several months.

# Proper Discard Usage 13

Sourdough discard can be stored in the same container and keeps well in the fridge for several weeks (even months). To achieve a properly fermented final product, sourdough discard must be used in one of three ways:

## **DISCARD + FRESH FLOUR + TIME TO SOAK**

## **DISCARD + SPROUTED FLOUR, USED RIGHT AWAY**

## **DISCARDED STARTER ONLY**

### Discard + fresh flour + time to soak

When adding fresh (unfermented, not soaked, not sprouted) flour to a recipe with sourdough discard, you need to give the new flour time to properly ferment. If you're using discard from a starter that is not yet mature, be sure to add 1 tsp of acidic medium per 1 cup of flour in addition to the starter, water, and fresh flour. Apple cider vinegar, whey, or lemon juice work well. Soak your discard, flour, and water mixture overnight or in a warm spot for 6-8 hours.

### Discard + sprouted flour, used right away

You can purchase organic **sprouted** wheat flour at health food stores or online markets. This wheat has been sprouted before being milled into flour, which qualifies it as a properly prepared grain. When using sprouted flour along with sourdough starter (or on its own), you do not need to soak or ferment the flour. This is the quickest approach when preparing baked goods that require additional flour.

### Discarded starter only

Sourdough discard from a mature sourdough starter is perfectly fermented wheat that can be used in recipes by itself without any additional soak or fermentation time. If you are collecting the discard from an immature starter (before your starter has been established for at least 7 days), be sure to add an acidic medium to the mixture and give it time to soak. The immature discard is not yet fully fermented and will, therefore, need more time and acidity to be easily digestible.

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## DISCARD PANCAKES WITH FRESH FLOUR

### Ingredients:

1/2 cup discard  
1 cup flour  
3/4 cup water  
1 tsp baking powder  
1/2 tsp baking soda  
1 egg  
3 tbsp melted butter (optional)  
3 tbsp maple syrup

### Instructions:

Combine discard, flour, and water. Cover and let it sit on the counter overnight or in a warm spot for 6-8 hours. In the morning, add the remaining ingredients, stir, and fry in an ungreased pan over medium heat.

## DISCARD PANCAKES WITH SPROUTED FLOUR

### Ingredients:

1/2 cup discard  
1 cup sprouted flour  
3/4 cups raw milk  
1 tsp baking powder  
1/2 tsp baking soda  
1 egg  
3 tbsp melted butter (optional)  
3 tbsp maple syrup

### Instructions:

Combine ingredients and fry over medium heat in an ungreased pan.

# Bonus Recipes

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## SOURDOUGH CHOCOLATE CHIP COOKIES

### Ingredients:

2 cups flour  
1/2 cup (or 50g) active sourdough starter  
1/2 cup maple syrup  
1/2 cup brown sugar (or an additional half cup maple syrup)  
8 tbsp melted (or softened) butter  
1/2 teaspoon baking powder  
1/4 teaspoon baking soda  
1/2 teaspoon salt  
1 teaspoon vanilla  
1 egg + 1 yolk  
1 cup chocolate chips

### Instructions:

Combine dry ingredients (flour, baking soda, baking powder, and salt) in a small bowl. Set aside. Combine starter, maple syrup, eggs, vanilla, brown sugar, and melted butter in a large bowl. (if using softened butter, cream the softened butter and sugar together before adding the rest of the wet ingredients). Mix until all ingredients are well incorporated. Slowly add dry ingredients while stirring.

Add chocolate chips and mix. The dough will be looser, more batter-like than traditional cookie dough. Cover your dough with a damp cloth and leave it on the counter for 4-6 hours. Place in fridge overnight (optional) or bake after the 4-6 hour counter soak. You can also skip the counter soak and let your dough ferment in the fridge for 12-14 hours before baking.

Bake at 375 for 12 minutes. Store leftover dough in the fridge for up to four days.

# Bonus Recipes

# 16

## PIZZA DOUGH

### Ingredients:

50-100 g active starter  
375 g warm filtered water  
500 g bread flour  
50 g olive oil  
10 g salt

### Instructions:

Dissolve the active starter in your warm water. Mix in flour, oil, and salt until well combined. Cover with a damp towel and let rest for 30 minutes. Perform 2-3 sets of "stretch and folds" to dough with 30-minute rest periods in between. Let dough bulk ferment on the counter overnight. In the morning, separate the dough into 4 pieces. Shape dough into balls and place on a baking sheet. Cover and place in the fridge. This dough keeps well for up to 5 days in the fridge.

When you're ready to make pizza, preheat your oven to 525 degrees. Gently stretch the dough on parchment paper, top with sauce + cheese, and bake for 14-16 minutes.



# Sourdough Essentials 17

Grab the ultimate sourdough kit at [Shoptheh.com](https://shoptheh.com)



## SOURDOUGH KIT

7-inch round woven proofing basket  
9-inch oval proofing basket  
stainless steel bench scraper  
hand-carved wooden spatula  
Printed Sourdough Guide







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