



SOURDOUGH

BREAD BAKING



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Introduction to the magic of sourdough bread.

Learn to make and maintain your own sourdough starter and how to bake a delicious healthy country style loaf in your home kitchen.

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MAKE & MAINTAIN YOUR SOURDOUGH STARTER

(Source: www.thepperfectloaf.com)

What is a sourdough starter?

A sourdough culture/starter/mother is a living thing. Inside the pot is wild yeast and lactic acid bacteria, which work together to protect their ecosystem from other uninvited bacteria. The lactic acid bacteria (LAB) produce organic acids that acidify the dough and transform the taste, nutritional value and digestibility of the bread. It is predominantly the yeast that produces CO₂ that makes the bread light and airy. Together they produce enzymes, which process and transform the flour into something magical and nutritious! A starter needs to be replenished and maintained to ensure that the activity of the microbes is managed.

In the bread baking process the sourdough starter is used as a natural leavening or rising agent instead of or combined with instant yeast. Before you can make “sourdough” bread you need a healthy and active sourdough starter. If you don’t have a friend nearby who can give you some of their existing starter you can easily make your own using flour, water and air. This is the very first step in the sourdough bread baking process. Once you have a healthy and active starter, the sky is the limit in terms of what you can make and bake with it!

TO MAKE YOUR OWN STARTER FROM SCRATCH

The following schedule will provide you with a reliable and strong sourdough starter in about 6-9 days. Once you have the culture stable it will last indefinitely as long as you feed it regularly taking just a few minutes a day. If you don’t plan to bake frequently you can toss the starter in the fridge and feed it only once a week.

Day One

In the morning, place an empty jar on the scale and tare. To that jar add 100 grams whole grain rye flour and 150 grams water into one of the clean jars and mix together. Stir vigorously until all dry bits are incorporated. Keep this mixture somewhere warm in your kitchen, 26°C to 29°C is ideal. If it’s cool in your kitchen, warm the water to 26°C before mixing. Let the mixture rest out of direct sunlight for 24 hours.

Day Two

You may or may not already see some fermentation activity. At this point our starter is not yet ready to bake with, this initial surge, while encouraging, will typically disappear by the third or fourth day. Stick to the schedule and it will come back!

Place your second, empty jar on the scale and tare so that it reads 0 grams. Scoop in 75 grams of the mixture that has been resting for 24 hours, discarding the rest. Next, add 50 grams rye flour, 50 grams all-purpose flour, and 125 grams water — again, if it’s cold, warm the water to 26°C.

Mix well until all dry bits are incorporated, cover, and place in the same warm spot for 24 hours, until day three. Discard the rest of the mixture in the first jar and clean it in preparation for the next day.

Day Three

In the morning, you may start to see more activity, or you may see none. Regardless of what signs your mixture is presenting, don't fret, stick to the schedule and activity will pick up soon enough. Remember, if it's cold in your kitchen warm your water to 26°C to help speed things along.

Place your clean jar on the scale and tare. Scoop in 75 grams of the mixture that rested overnight and add 50 grams rye flour, 50 grams all-purpose flour, and 125 grams water. Stir until well incorporated. Cover the jar and let rest 24 hours until day four.

Discard the rest of the mixture in the first jar and clean it in preparation for the next day.

Day Four

This is the first day of the process with two refreshments in a single day: one in the morning, and one approximately 12 hours later. In the morning, you should start to see (more) signs of fermentation activity if you haven't already. There will be bubbles scattered on the sides and top, and the level of the mixture might have risen and fallen a little (evidenced by streaks on the sides of the jar).

Refresh in the same way as on day three. Place a clean jar on the scale and tare. Scoop in 75 grams of the mixture from the jar that fermented overnight; add 50 grams rye flour, 50 grams all-purpose flour, and 125 grams water. Mix thoroughly, cover, and let rest for 12 hours. After this 12-hour rest, discard down and refresh again with the same ratio of ingredients, and let rest overnight.

Discard the rest of the mixture in the first jar and clean it in preparation for the next day.

Day Five and Six

For days five and six, continue refreshing with the same ratio of ingredients as day four, twice a day, as fermentation activity increases more and more.

Day Seven and Onward

In the morning on day seven, place a clean jar on the scale and tare. Scoop in 50 grams of the mixture from the jar that fermented overnight. To this, add 100 grams all-purpose flour and 100 grams water (no rye flour is needed). Mix thoroughly, cover, and let rest for 12 hours. In the evening (after about 12 hours), refresh again with the same ratio of ingredients and let rest until the next day.

At this point you should start to see the height of your starter rise and fall in the jar predictably each day. This periodic behavior is a good indicator that it is strong enough to use for your first loaf of bread. If your starter is still struggling to show vigorous activity, keep refreshing with the same ratio of ingredients for another day, or several more, until things pick up. This process can sometimes take longer, depending on the flour used and the environment (especially if it's cool in your kitchen). Be patient and stick to the schedule, and eventually a stable starter will take hold.

The starter will continue to develop flavor and strength over the next week and into the future. With a strong starter, you can now use a portion of it when "mature" (when it's risen to maximal height) to make a leaven for any recipe.

Once your starter is rising and falling predictably it's also fine to switch your feeding flour to suit your preference. You can continue feeding with 100% all-purpose white flour, a mixture of rye and all-purpose, or even switch to using 100% whole wheat.

Each flour choice imparts a different set of qualities to your starter and the more whole grain the flour the shorter the timespan between feedings. There is no right or wrong flour to use when maintaining your starter, it's up to you and your starter!

Feeding Schedule

A sourdough starter is a very resilient thing. If you forget to feed it one day don't worry! A well-established starter won't die overnight. In fact, it will survive much longer than you think, but a neglected starter just won't be good to bake with until you have refreshed it back to a healthy state.

If you don't plan to use your starter a lot leave it in the fridge and feed it once a week. It will be fine in the fridge for a few weeks if you go away. It might get a layer of black liquid on top called "Hootch" but you can just scoop this off when you come back from holiday, place a very small amount of starter in a clean jar and resume your feeding schedule as usual. It will be back to health in no time!

Your daily feeding schedule will follow the natural rise and fall of your starter. As soon as you feed it the yeast and bacteria in your culture will begin to metabolize the sugars found in the flour, creating gasses as a byproduct. These gasses cause the starter to rise through the day and your dough to rise when baked.

Daily Starter Maintenance

1. Stir down your starter a little bit with your spatula
2. Remove about half the stirred down starter from the jar so that you are left with about 20g in the jar.
3. Add 40g flour and 40g water (equal parts flour and water for 100% hydration starter), mix well to completely incorporate
4. Cover the jar loosely and let rest until the next feeding
5. You can accumulate discarded starter in a covered bowl in the fridge and use it to make your flapjacks, crackers or banana bread. I feed most of my discarded starter to my chickens!
6. DO NOT WASH DISCARDED STARTER DOWN THE DRAIN. GLUTEN IS NOT WATER SOLUBLE SO THE DRAIN WILL EVENTUALLY CLOG UP.

Outline of Sourdough Bread Process

1. Introduction

The key to good bread is a healthy and active sourdough starter and a nice long fermentation time for your dough. The dough fermentation takes place in two stages – bulk fermentation (before shaping) and final proof (after shaping). Both of these can be done at room temperature or retarded in the fridge, or a combination of the two depending on what suits your schedule best. The longer your sourdough bread ferments, the more digestible it will be.

It is said that 80% of your bread outcome is determined by good fermentation and gentle handling of the dough. This is what makes things so tricky for home bakers, because both require a lot of practice (eye and feel) to get right. The best thing to do is practice, practice, and practice! Don't give up and where possible take notes of what you are doing differently each time. Eventually you will mold the schedule and method to fit into your lifestyle.

2. Health benefits

Slowly fermented sourdough bread tends to have less impact on people with gluten intolerance than normal bread. This is because the very long, slow fermentation process of sourdough predigests the indigestible amino acids proline and glutamine in the gluten. Proline is resistant to breakdown by the enzymes in the bowel so the only way we can break it down is through using lactobacillus and long, slow fermentation.

Fermentation facilitates a remarkable change in flour, which in its raw state is not digestible by humans. This transformative process creates an abundance of fibre, food nutrients and nourishment, which are good for us and for our gut microbes. For this reason, Vanessa Kimble from the Sourdough School, views sourdough as a prebiotic, which is thought to feed friendly gut bacteria and help them proliferate on their own, nourishing and supporting the microbes that are key to our health.

3. Baking tools

Glass mason jars with lids for starter	Proofing bowls or baskets
Small spatula to stir starter	Shower caps or cling film
Scale	Non-greased baking paper
Mixing bowls with lids (small & large)	Sharp knife, blade or lame for scoring
Water jug	Cast iron pot with lid or Pyrex dishes with lids
Dough scraper	Bread pan (Le Creuset non-stick works very well!)
Dough cutter	Thermometer (optional)

4. Active and Healthy Starter (separate notes on maintaining your starter)

A few days before you want to bake make sure your sourdough starter is active and healthy by feeding it twice a day in a ratio of 1:2:2 (eg. Starter; Flour; Water). At each feed you discard all but 20g (or a teaspoon) of starter and top it up with 40g water and 40g flour before mixing it all together.

100% hydration starter = starter fed with equal quantities of flour and water.

An active starter should at least double in volume within 6-8 hours and sometimes even triple (at room temp of 23-26°C). You should see lots of bubbly activity and it should smell pleasantly acidic, look light and creamy and have a billowy feel. It should not be runny!

Use two rubber bands around a glass mason jar to monitor the progress of your starter and to get a general feel for how long it takes to rise to its peak.

Your starter will be more sluggish in winter when room temperature is 21°C or lower. This is not a problem; it just means you must adjust your fermentation times. Find a nice warm spot in your kitchen to keep your starter when it's cold.

Once your starter is looking healthy and active, you can use it to make a levain for your bread. The levain is just a larger version of your sourdough starter that will be incorporated into your dough as the leavening or rising agent (instead of instant yeast).

5. Prepare the Levain

The levain is prepared 5-10 hours before you want to mix your bread dough. The timing will depend on the behavior of your starter i.e. how quickly it is rising and falling. If your starter is very

active and room temp is above 24°C, you should be able to use your levain within a window of 4-8 hours. It should look bubbly and doubled in size. It should have enough gas in it to float on water. Do the “float test” before using it just to make sure.

Don't use levain that has reached its peak and already started to fall as your bread won't rise as well and it will be very sour.

Generally a bread recipe using 1kg of flour will require 200g of levain.

200g levain = 50g mature starter + 100g flour + 100g water

You can mix your levain in the evening before you go to bed so that you can mix your dough first thing in the morning or you can mix it in the morning if you want to mix dough in the afternoon. Use warm water and put it in a warm spot if you want to hurry the process along and vice versa.

A more mature levain (10hrs) will bring a more sour taste to your bread than a young levain (4-6hrs), but the times will vary according to season!

6. Measure out Ingredients

The only ingredients in the bread are flour (preferably unbleached stone ground), water & salt (uniodised sea salt). Measure everything by weight according to your recipe.

A recipe containing 1kg of flour will usually have 200g levain (20%), 20g salt (2%) and 750-800g water (75-80%).

The amount of water will depend on the type of flour you are using. Wholegrain stoneground flours tend to be more thirsty (i.e. able to absorb more water before falling apart in a shaggy mess). With these kinds of flours you need to use more water to give you a lovely moist and open crumb (85-90%).

Beware: wetter dough is harder to handle so first be comfortable with 75% before you move on. Wetter is not necessarily better as your flour will have a threshold for water absorption.

7. First stage: Autolyse

Autolyse is a process that helps to hydrate your flour and develop gluten. It also adds flavor to the bread by activating enzymes in the flour and releasing sugars from the starch, which allows for increased fermentation, better browning during the bake and greater residual sugar in the finished loaf.

The autolyse happens at the very first stage of mixing your ingredients when flour and most of the water are added together and mixed until they are just combined (no kneading). This mixture is left for at least 30 minutes before adding the levain, salt and leftover water.

If you are using wholegrain or freshly milled flours that are very “thirsty”, your bread will benefit from a much longer autolyse of anything from 1-7 hours.

Some recipes, like the Tartine Country Bread, autolyse the flour and water with the levain. This means that you will mix the measured out flour, most of the water and the levain until just incorporated. Leave to stand for about 30 minutes before adding the salt. The autolyse ends when the salt is added.

Autolyse with the levain is limited to 30-40 minutes as the process of fermentation begins when the levain is added to the flour and water.

8. Add final ingredients and mix

After the autolyse you will add the salt, left over water and levain (if not added in the previous step). Use the pincer method and gently mix the dough with wet hands to distribute everything evenly through the dough. If not using an electric mixer work the dough for about 5 minutes in the bowl to start developing the gluten. Scrape the sides of the dough with a dough scraper and fold the dough in on itself to make sure everything is incorporated. You can stop when the dough feels like it is coming together and is transforming from a shaggy mess into something more smooth and coherent.

Warm wet hands and a dough scraper are your friends when working with dough!

Depending on what kind of bread you are making, you can either chose to develop the gluten fully at the start (by hand or with a mixer) or let it develop over time with stretches and folds during the bulk ferment. Very wet dough (80-90% hydration) will benefit from more mixing at the start to help develop the gluten early on in the process so that you can use your stretching and folding during the bulk ferment to develop structure in your dough,

9. Bulk fermentation and folds

This is the first part of the rise and one of the most important parts of your bread making process. Bulk fermentation will last anything between 3-6 hours depending on the room temperature. You can also put it in the fridge for longer.

Estimated bulk ferment times:

Room temperature	Bulk time to achieve 50-60% rise in volume
7-10 °C (warm bar fridge)	20-24 hours
20-22 °C	6-7 hours or overnight
25-28 °C	3-4 hours

Temperature has a big impact on your bulk fermentation time. The ideal temperature for fermentation is 24-26°C so if your room temperature is a lot hotter or colder you will have to adjust your bulk ferment time accordingly. For example, at room temp of 21-22°C you might need to bulk ferment for 6 hours, but at 28 degrees it might only be 3 hours. You will have to judge.

At the end of bulk fermentation your dough should have roughly doubled in size. Judging when to end your bulk fermentation accurately is something that takes time and practice. The more familiar you are with your flour and the level of activity in your starter the easier it is. The dough should have a glossy sheen, a slightly domed top and some bubbles on the top and sides.

Left on its own a bowl of dough will equalize to room temperature quite quickly.

During bulk fermentation the dough is stretched and folded every 30 minutes 4-5 times to help develop the gluten and create structure in your dough. Handle the dough very carefully in the 4th and 5th folds so as not to degas it.

Use wet hands to prevent dough from sticking.

You can check how well your gluten has developed by performing the “windowpane test” towards the end of bulk fermentation. Lift and stretch a small corner of the dough with your fingers to see if it holds together in a single thin pane. If it breaks apart quickly it needs more time.

A well-developed gluten network helps to trap gasses in the dough, which helps to create a nice open crumb in your bread.

You can do some things to help your dough perform better in different environments:

Adjustments for temperature	
Less than 24°C	More than 26°C
<ul style="list-style-type: none"> • Use warmer water in your mix • Warm your hands when folding the dough 	<ul style="list-style-type: none"> • Use colder water in your mix • Use cold flour • Use cold hands when stretching and folding

<ul style="list-style-type: none"> • Make sure your flour is not used straight out the fridge or freezer • Find a warm spot in your kitchen next to your Aga or on a heated floor (but not too hot!) • Leave your dough to bulk ferment for much longer eg. Overnight. 	<ul style="list-style-type: none"> • Find a cool spot in your kitchen. • Monitor your dough closely to make sure it doesn't over ferment. • If you want it to bulk ferment overnight then use a bit less levain than stated in your recipe. • If it's really a heat wave you can bulk ferment for a longer time in the fridge (preferably a bar fridge on its warmest setting). 8-10C is ideal temp.
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10. Divide and pre-shape

Gently slide dough onto an unfloured damp surface using wet hands. Sift flour over the top of the dough and cut into two equal portions with dough scraper (a recipe with 1kg of flour will yield 2 loaves). Don't be scared of the dough. Work confidently with gentle but bold strokes letting the scraper do most of the work rather than your hands.

If you get dough stuck on your hands scrape it off and put more flour on your hands – wet dough attracts more dough!

Dust the dough scraper and your hands with flour. Flip the first piece of dough over so that the floured side is on the bench and fold the sides of the dough over into the middle to form a round shape that has flour on the outside.

Flip the dough over again so that the seam side is facing down then gently shape the dough into a round cupping the dough in your hands with your pinkie fingers resting and sliding on the bench. Use a sliding action on the bench, create some tension in the skin of the dough. Repeat with the second piece of dough.

11. Bench rest

Leave the pre-shaped rounds to rest for 20-30 minutes. The edges of the dough should remain nice and rounded. If the pre-shaped rounds lose their shape very quickly and the edges flatten out the dough needs to bulk ferment for longer.

The bench rest allows the gluten network to reform and recover after dividing and pre-shaping.

12. Final shaping

Flip each round over using minimal flour. See shaping demonstration. The aim is to make a nice tight round with lots of tension in the skin without breaking the skin.

A nice taught skin will help your bread to rise well and burst open in the oven “oven-spring” and give you a nice crisp crust.

Gently place the shaped rounds seam side up into proofing baskets or bowls lined with dishcloths and sifted with flour (preferably rice flour or corn flour). Dust the tops of the dough with flour and cover with clingwrap or a shower cap.

Rice flour or corn flour will create a nice white pattern on your bread and will not burn as easily as normal flour.

13. Final proof

Leave the dough to proof at room temperature for 2-4 hours depending on room temp. You can also proof overnight in the fridge so that the loaves are ready to bake first thing in the morning. If you know your fridge is very cold then give your shaped loaves some floor time outside the fridge before you retard them, or take them out of the fridge about an 1-2 hours before you plan to bake them.

The loaves are fully proofed when they have risen quite a bit in the basket. Gently press the dough with a floured finger to test the degree of proof. If it rises back slowly it is ready. If it springs back very quickly and leaves no indent it can go a bit longer. If it stays indented and doesn't spring back it is over proofed. An over proofed loaf can look very bubbly and like it wants to spill over the edges of the proofing basket.

Fermentation stops below 5°C so your main fridge is generally too cold. A bar fridge set on its warmest temp works well. 9-10°C is ideal for retarded proof.

Cold loaves are easier to score and tend to have better rise in the oven – “oven spring”. Over proofed loaves can fall flat (at worst) or may have a chewy crust and gummy crumb.

14. Bake

The bread is baked in a Dutch Oven (heavy cast iron pot with lid or Pyrex dishes with lids) to help trap steam in the early part of baking. This helps to create a nice crispy crust. Check what the

heat resistance of your pot and the handle on the lid is before using it in a very hot oven. Don't leave an empty Le Creuset pot in a very hot oven for too long as it will get damaged!

About 45 min before you want to bake your bread put your pots in the oven and preheat to maximum temperature on thermofan (every oven is different so you can experiment with what gives you a better outcome).

If you are baking your bread in a baking tin you don't need to cover it. You can just spritz some water on top of your loaves before putting them in the oven as you would normally bake a bread.

When the oven is ready take dough out of the fridge. Line a board with baking paper and gently flip the dough onto the boards. Score each loaf with a sharp blade or serrated knife and gently lower into Dutch oven using the baking paper as support. Put lid on and straight into the oven.

Try to use ungreased baking paper... Greased paper will stick to your bread!!

Turn the heat down to 245°C. Bake for 30-40 minutes at high heat and then remove lid, turn down the heat to 200°C and carry on baking for 20-30 minutes. The crust should be nice and caramelized, but not burnt.

Keep your oven mits on the hot lid at all times so that you don't accidentally burn yourself!!

15. Cool

Place on cooling racks on a flat surface and leave for at least 30 min to complete the cooking process.

Sources:

Tartine - Chad Robertson

Flour, Water, Salt, Yeast – Ken Forkish

The Sourdough School – Vanessa Kimbell @vanessakimbell

Open Crumb Mastery – Trevor J Wilson @trevorjaywilson

www.theperfectloaf.com - Maurizio Leo @maurizio

MARISA'S TOP TIPS

1. Don't be scared!! Get to know your starter, keep it healthy and get your hands into the dough as often as you can.
2. Use the best possible ingredients you can. Stoneground unbleached flour and un-iodised salt are the most important. If there's a lot of chlorine in the water try using bottled or filtered water.
3. Be aware of seasonal changes in temperature and how they will affect your fermentation times. There can be a 4 hour difference between peak summer and winter!
4. Design a schedule that works for you - whether you only have time to bake on the weekends or find time to do it in the week. Remember, the fridge is your friend in buying time and giving you flexibility. Try to get a sense for the temperature of your fridge as that can make a big difference to timing. Fermentation stops below 3°C.
5. Try an overnight bulk ferment at least once. This will force you to leave the dough for longer than you would normally do and it will show you what a very proofy dough looks like. Mix the dough in the early evening and do a few stretch and folds before bedtime. Time will do the rest! Just don't do it when your kitchen is very hot. 21°C or cooler is ideal.
6. Mix the dough properly before the bulk fermentation. You should be able to feel the dough becoming less sticky and silky smooth the longer you mix. This is an important step in developing the gluten in your dough allowing it to be more light and airy. But don't force the dough. If it feels tight rather leave it or add a little more water to make it more extensible. The problem with recipes is that different types of flour can yield very different results so you have to try to adapt for your own circumstances.
7. Try to have gentle hands when working with the dough, especially when it's at the end of the bulk ferment. All those lovely bubbles and gasses are what give your bread nice oven spring and an open crumb.
8. Wet hands and water are your friends when working with sticky dough. You can even wipe your counter top with a wet cloth instead of dusting flour. If your hands get sticky while shaping the dough clean them before carrying on.
9. Get a sourdough buddy who you can bounce ideas off and share experiences. It really helps to talk about it. Instagram is also a great source of info.
10. Try the country loaf recipe a few times until you are happy with the results. If you are the experimental type you can use all sorts of flour combinations using exactly the same principles. Every type of flour is different though so you need to be flexible and use a bit more water for wholegrain breads.
11. Don't get discouraged! If it doesn't work perfectly your loaf will still be more delicious than anything you can buy in the shops because it was made with your love and care. Try again next time with some adjustments!

BREAD NOTES

Date:	
Type of Bread:	
Type of Flour:	
Type of Leaven:	
Autolyse:	
Hydration:	
Water Temperature:	
Room Temperature:	
Final Dough Temperature:	
Mixing time:	
Number of folds:	
Bulk Fermentation time & temperature:	
Bench rest time:	
Shape:	
Proof time:	
Retarded proof or ambient?	
Oven Temperature:	
Baking method:	
Comments:	

BREAD BAKING SCHEDULE

STEP	Schedule 1	Schedule 2	Schedule 3
Refresh starter	Day 1: 9/10pm <i>Leave overnight</i>	Day 1: 11am/1pm <i>Leave for 8-10 hours</i>	Day 1: 10/11pm <i>Leave for 12 hours</i>
Make Leaven	Day 2: 7/8am <i>Leave for 6-8 hours until ready</i>	Day 1: 10/11pm <i>Leave overnight</i>	Day 2: 11/12pm <i>Leave for 6-8 hours</i>
Mix & Autolyse	Day 2: 3/4pm <i>30 minutes</i>	Day 2: 7/8am <i>30 minutes</i>	Day 2: 6/7pm <i>30 minutes</i>
Add Salt & Final Mix. Start Bulk	Day 2: 3:30/4:30pm <i>Bulk for 3-5 hours until ready</i>	Day 2: 8:30/9:30pm <i>Bulk for 4-6 hours until ready</i>	Day 2: 6:30/7:30pm <i>Bulk overnight</i>
Start Stretch & Folds	Day 2: 4pm/5pm <i>(4-5 S&F)</i>	Day 2: 9am/10am <i>(4-5 S&F)</i>	Day 2: 7:00/8:00pm <i>(Do 2-3 S&F before bedtime)</i>
End Bulk	Day 2: 8:00/9:00pm	Day 2: 2pm/3pm	Day 3: 7/8am
Pre-shape & Bench Rest	Day 2: 8:00/9:00pm	Day 2: 2pm/3pm	Day 3: 7/8am
Final Shape	Day 2: 9/10pm	Day 2: 2:30/3:30pm	Day 3: 7:30/8:30am
Final Prove	Into the fridge overnight <i>Prove for 8-20 hours</i>	Day 2: Prove at room temperature for 2.5-3 hours / or retard in the fridge for 8-20 hours.	Day 3: Prove at room temperature for 2.5-3 hours / or retard in the fridge for 8-20 hours.
Score			
Bake	Day 3: 8am/7pm <i>As long as it's in the fridge you should be able to leave it until you are ready to bake!</i>	Day 2: 5:30pm Or Day 3: 6/8am Bake <i>As long as it's in the fridge you should be able to leave it until you are ready to bake!</i>	Day 3: 10:30am Or Day 3: 6/8pm

Country Sourdough Bread (Tartine)

ONE LOAF

[450g]
[50g]
[375g] (hold 25g back)
[100g]
[10g]

TWO LOAVES

900g Unbleached stoneground white bread flour
100g Whole wheat flour
750g Warm water (keep 50g to add with the salt)
200g Sourdough levain (100% hydration)
20g Fine sea salt

16. Prepare the Levain

The levain is just a larger version of your sourdough starter that will be incorporated into your dough instead of commercial yeast. Add mature starter, flour & water in a ratio of 1:2:2 (50g mature starter + 100g flour + 100g water). Depending on the ambient temperature, it should be ready to use after 6-10 hours when it is bubbly and doubled in size. Should float when dropped in water – “float test”.

17. Measure out ingredients

The only ingredients in the bread are flour (preferably unbleached stone ground), water & salt (fine sea salt). Measure everything by weight.

18. Autolyse

When the levain is ready measure the desired amount and gently mix into 700g [375g] of water (*keep 50g [25g] of water aside to add later with the salt*). Add the water and levain mixture to the flour and mix with your hands until just incorporated (no kneading). Leave for about 30 minutes. The autolyse process helps to hydrate the flour, develop gluten and add flavor as the enzymes in the flour are activated.

19. Add final ingredients and mix

Properly mix in the salt and remaining 50g [25g] of water. Use the pincer method to distribute gently and evenly through the dough getting rid of any lumps. If not using an electric mixer work the dough for about 5 minutes in the bowl to start developing the gluten. Use wet hands and a dough scraper to clean the sides of the bowl and fold the dough over itself until it starts to come together.

20. Bulk fermentation and folds

This is the first part of the rise. Fold 4-5 times every 30 minutes starting about 30 minutes after the final mix. Use wet hands to prevent dough from sticking and a plastic dough scraper to clean the sides of the bowl and your hands. Handle the dough very carefully in the last folds so as not to deflate the dough. The dough should double in size and become nice and bubbly with a domed top.

Estimated bulk ferment times:

Room temperature	Bulk time to achieve 50-60% rise in volume
7-10 °C (warm bar fridge)	20-24 hours
20-22 °C	6-7 hours or overnight
25-28 °C	3-4 hours

If you don't have time to do folds every 30 minutes then do a longer mix at the start to develop gluten and a few folds towards the end of bulk ferment time to build structure in the dough.

21. Divide and pre-shape [THIS STEP NOT STRICTLY NECESSARY WHEN DOING ONE LOAF]

Gently slide dough onto an unfloured surface using wet hands. Sift flour over the top of the dough and cut into two equal portions with dough scraper. Dust dough scraper and hands with flour. Flip over onto floured side and fold sides over into the middle to form a round shape with flour on the outside. Flip over again so that the joined side is at the bottom and gently shape into round using bench and your pinkie fingers to create some tension in the skin, which will help to create a nice crust.

22. Bench rest [SKIP IF YOU DIDN'T PRE-SHAPE]

Leave the pre-shaped rounds to rest for 20-30 minutes. The edges of the dough should remain nice and rounded. If the edges flatten out too much the dough probably didn't bulk ferment long enough. At this point you can put it back in the bowl to ferment longer before shaping.

23. Final shaping

Flip rounds over using minimal flour. See shaping demonstration. Aim is to make a nice tight round with lots of tension in the skin without breaking the skin and deflating the dough. If some dough sticks to your hands scrape it off and make sure your hands are clean before handling the dough further – wet dough attracts more dough!

24. Final proof

Gently place the shaped rounds seam side up into proofing baskets or bowls lined with dishcloths and sifted with flour (rice flour or corn flour work well). Leave to proof at room temperature for 2-4 hours depending on temperature. You can also proof overnight in the fridge so that the loaves are ready to bake first thing in the morning (ideal fridge temperature is 8-10 degrees so that fermentation doesn't stop completely). If you know your fridge is cold then give your shaped loaves some "floor time" outside the fridge before you retard them or take them out of the fridge about an hour before you bake them.

Cold loaves are easier to score and tend to have better rise in the oven – "oven spring". Fully proofed loaves will have risen quite a bit in the basket (depending on the flour used) and when you press the dough with your finger it should rise back slowly. To do the "finger test" dip index finger in flour and gently press the dough. If it rises back slowly it is ready. If it springs back very quickly and leaves no indent it can go a bit longer. If it stays indented and doesn't spring back it's over proofed. An

overproofed loaf will also look quite bubbly and rise a lot in the proofing basket. You can still bake an overproofed loaf, but it won't have much oven spring and it might even deflate in the oven.

25. *Bake*

Put your cast iron pot or Pyrex dish with lid (Dutch oven) into the oven and preheat to maximum temperature for about 45 minutes. When the oven is at max temperature take the cast iron pot out of the oven and remove the lid. Take the proving basket out of the fridge. Line a board with baking paper (be careful of wax paper!) and gently flip the dough over onto the boards. Score each loaf with a nice confident slash using a sharp knife or lame. With support from the baking paper gently lower the dough into cast iron pot (if not using paper scatter some semolina at the bottom of the pot). Put lid on and straight back into the oven. Use heavy oven gloves at all times!!

Turn the heat down to 245 degrees C. Bake for 30 minutes at high heat and then remove lid, turn down the heat to 200 degrees and carry on baking for 20-30 minutes. The crust must be nice and caramelized, but not burnt.

26. *Cool*

Turn out onto cooling racks and leave for at least 30 minutes to complete the cooking process.

Vastrap Soft Sandwich Bread

Levain

20g Sourdough starter plus 50g Flour and 50g water.

Mix well and leave overnight or for 6-8 hours until mature

Dough Formula

100g mature sourdough levain

397g luke warm water

339g whole wheat flour

134g white bread flour

8g salt

32g raw honey

31g olive oil or vegetable oil



METHOD

1. Combine the sourdough leaven with 340g of the water in the bowl of a stand mixer. Add the honey and olive oil.
2. Mix the flours and salt and add to the wet ingredients. Use a dough hook to mix at low speed for 3 minutes. Stop to scrape the bowl.
3. Turn the mixer up one speed and continue to knead for about 10 minutes. Add the remaining 57g of water very slowly. At the end of the kneading the dough should be smooth and elastic.
4. Let the dough rest in a covered bowl in a warm place for 45 min. Then stretch and fold the dough 4 times over itself into a ball. Turn the dough over seam side down and let it rest again before the next set of stretch and folds 30-45 minutes later.
5. Bulk fermentation should be complete after about 3 hours (a bit longer in winter). The dough should look shiny with a domed top and a few bubbles on the surface.
6. Turn the dough onto a slightly wet surface and gently pat down to de-gas it. Fold the edges of the dough into the middle to form a pre-shaped ball. Place the ball seam side down on and let it rest for 20 -30 minutes.
7. Dust the dough ball with flour and use a dough scraper to flip it over. Stretch it out into a rectangle the length of your greased loaf pan. Fold in the sides from left to right and then roll into a tight log. Place seam side down into a well greased loaf tin.
8. Cover with a shower cap and proof for 1.5-2 hours at room temp or overnight in a cold fridge. The dough should rise quite a bit in the pan.
9. Bake in pre-heated oven at 220C for 5 minutes (no steam). Reduce temperature to 180C and bake for further 30-35 minutes until golden.
10. Turn out onto a cooling rack and leave to cool completely before slicing.

Vastrap Sourdough Baguettes

FORMULA

- 900g white bread flour
- 100g wholewheat or freshly ground flour
- 770g water
- 22g salt
- 225g white leaven (ready to use +/- 6-8hrs after feeding)

METHOD

- ◆ Mix all the flour with 710g of water and autolyse for 1-2 hours.
- ◆ After the autolyse add the remaining water, leaven and salt to the dough and mix very well for about 10 minutes until the dough feels smooth and glossy. This is important to develop the gluten.
- ◆ Bulk ferment for about 2 hours at room temperature (or less if it's very hot). Stretch and fold 2-3 times at 30 minute intervals.
- ◆ Put the dough in a cold fridge to ferment overnight.
- ◆ The next day tip the cold dough onto the counter and shape into a rectangular shape. Divide into 8 pieces of about 250g each.
- ◆ Preshape by stretching dough outwards and then folding the left side over the right side. Roll once from the top down and then over itself from the bottom up. Seal the seams. Place rolls SEAM SIDE UP (2 side by side) on a well floured linen cloth or couche and leave to rest for 30 minutes.

- FINAL SHAPE – remove all 8 pieces of dough from the couche and set aside on floured bench. Roll into 40cm long demi-baguettes. Make sure your seams are relatively straight and properly sealed. Place shaped baguettes SEAM SIDE UP back on the floured couche. Cover and set aside for FINAL PROOF of 1.5 - 2 hours (time depends on temperature and type of flour used).
- ◆ Pre-heat oven on maximum 260C. Prep system to make steam in the oven (lava rocks, baking tray with folded tea towel, cans filled with boiling water. About 15 minutes before the dough is ready boil the kettle and prep transfer boards and pre-heat your baking sheets.
 - ◆ When the dough is well proofed remove the pre-heated baking sheets from the oven and line with reusable baking paper. Gently roll each baguette off the couche onto a floured wooden transfer board and gently shake the board to transfer the baguette onto the baking sheet keeping the dough as straight as possible.
 - ◆ Once they are transferred score each baguette three times down the middle or just one long score with a sharp knife or lame.
 - ◆ Immediately transfer the baking sheets to 250C oven (FAN OFF) and add boiling water to your method of creating steam. The more steam the better!
 - ◆ Bake for 15 min @ 245C and another 10 min at 200C. Leave for longer if you want more colour.

Sourdough Flapjacks (www.theperfectloaf.com)

Ingredients

- 2 large eggs
- 245g (1 cup) whole milk
- 61g (1/4 cup) Greek yogurt (*optional*)
- 250g (1 1/2 cup, mature sourdough starter or discard
- 4g (1 teaspoon) vanilla (*optional*)
- 180g (1 1/2 cups) all-purpose flour, or a mix of all purpose and whole wheat flour
- 6g (1 teaspoon) baking soda
- 4g (1 teaspoon) baking powder
- 5g (1 teaspoon) sea salt
- 50g (1/4 cup) granulated sugar
- 63g (1/4 cup or 1/2 stick) melted butter

Method

Beat **eggs** in a medium bowl. Add **milk**, optional **yogurt**, **sourdough starter** and optional **vanilla**. Stir to incorporate.

Sift together **flour**, **baking soda**, **baking powder**, **salt**, and **sugar**. Add dry mix to the egg mixture, mixing well. Stir in **melted butter**. Wait about 30 minutes to let your sourdough starter get going just a bit.

Lightly grease a hot griddle. Drop the batter onto the griddle and cook until light brown and bubbles start to appear on top, then flip to cook the other side. Refrain from flipping multiple times.

You might need to adjust the amount of milk depending on the stiffness of your sourdough starter and your preferred batter consistency. The above ingredients work well for my liquid starter, if you're using a stiff starter you might want to add around 1/2 cup more milk.

Overnight fermentation option:

Another option for these pancakes is to let the batter ferment overnight in the same way the waffles are done, above. Combine the milk, sugar, and flour with the sourdough starter the night before. In the morning add the baking soda, baking powder, salt and vanilla. Then separate the egg yolks from the whites, whisk the whites to stiff peaks and slightly scramble the yolks in another bowl. Fold both in right before making the pancakes.

Sourdough Banana Bread (www.theperfectloaf.com)

Ingredients

- 200g (2 cups) all purpose flour
- 3g (1/2 teaspoon) baking soda
- 3g (1/2 teaspoon) sea salt
- 125g (1 cup) chopped walnuts (and/or pecans)
- 126g (1/2 cup or 1 stick) butter, at room temperature
- 100g (1/2 cup lightly packed) brown sugar
- 2 eggs
- 125g (3/4 cup, mature sourdough starter or discard
- 85g (2 tablespoons) raw honey
- 3 super ripe medium mashed bananas (black and mushy)
- 28g (2 tablespoons) extra virgin olive oil
- 4g (1 teaspoon) vanilla
- zest of 1 lemon (*optional*)

Bake in a 9" x 5" loaf pan.

Method

Preheat your oven to 180°C.

In a large mixing bowl combine **flour**, **baking soda**, and **salt**.

In a small bowl mix together a handful of chopped **walnuts** and a few pinches of **sugar**. Set aside to be used as the topping later.

In another bowl (or a stand mixer) cream **butter** and **sugar** until fluffy. Add the **eggs**, one at a time. While mixing, scrap down the sides of the bowl. Add in **sourdough starter**, **honey**, mashed **bananas**, and **olive oil**. Add in the **vanilla**. Then, add in the flour mixture slowly, pausing to scrape down the sides if necessary. By hand, fold in the remaining **walnuts** and **lemon zest**. Pour the batter into the 9" x 5" baking pan and smooth the top with a spatula. Sprinkle on the reserved chopped walnuts and sugar.

Bake for 55-65 minutes. It's better to undercook this than overcook: you want it moist. Let cool in pan for 10 minutes and then gently remove onto a wire rack to fully cool.