



I hope this helps you understand a little about this special art. I have been researching and practising my Sourdough techniques and I have included my latest recipe and shaping style.

Sourdough is a strong, richly flavoured bread with excellent keeping qualities. It is produced when a ferment (starter) is used as a leaven in making the bread. The starter is made up of wild yeast and bacteria and a base or substrate that they feed on. The microbes can come from the air, flours, the skin of fruits, yoghurt, milk or beer. The substrate can include any of mashed potato, onion slices and flour, and the feeding flour can be unbleached bread flour, wholemeal, spelt, rye, buckwheat or other flours of your choice.

The microbes produce acids (lactic and acetic) when they feed, and it's these acids which produce the flavour in sourdough. Thus, the longer you can maintain your starter, the richer the flavour of your bread will become. To do this you need to remember that micro-organisms are living and so they need a steady supply of food, warmth, oxygen and hygiene. Keeping the starter in the fridge will retard its development, but it will still need to be fed occasionally, maybe as little as once a month.

I mostly use unbleached bread flour – it could be organic, spelt, rye or wholemeal. Try not to suddenly change the flour type that you feed your starter, they are a bit temperamental and might not like the abrupt change. If you wish to change, at each feed, use a percentage of the new flour with the rest made up of what you normally use. You can blend different flours into the loaf you make, but don't mess with your starter, leave the starter alone and it will stay happy. Loads of other ingredients can be added to hurry up the fermentation, such as water soaked with raisins, unsweetened pineapple juice, malt and a heap of other things.

However, keeping it simple still works well.

T = tablespoon C = Cup t = teaspoon

Some Basic Rules You Need to be Know:

1. If starter turns pink, black or fuzzy it is contaminated and needs to be thrown away. May be able to salvage a little clean starter from the base of the container and revive.
2. A starter will develop best if used and refreshed (fed and watered) more often.
3. Any liquid, which rises to the top, is called "hooch", (often greyish). It can be stirred back into the starter before use, or poured off if the mixture is getting too thin.
4. Don't keep starter tightly sealed as gases produced need to be able to escape, the starter needs to "breathe".
5. Use plastic, glass or ceramic containers, acid from the starter can corrode metal.
6. Occasionally freshen the starter's storage container. Tip the starter into a clean bowl, feed it, and wash out the storage container being sure to rinse off all detergent. Once the starter bubbles, pour it back into the container and store as normal.
7. You can cover dough with freezer bag at all stages, to prevent a skin forming on the surface which may then interfere with the rising.
8. Feed starter 2-3 times per week, **much less** if starter is in the fridge. Feeding should be in the ratio of 1 volume of starter + at least 1 volume of flour + at least 1 volume of water. If volume of starter gets too great, use some to make pancakes or bread, or simply give some away or discard most before feeding.

Creating A Really, Basic Starter Recipe.

I prefer to keep it REALLY, simple, so I only use flour and water for my starter, it is quite reliable and getting more flavoursome. I only add flour, water and salt to the dough when I make bread and use a little oil to fold and handle the dough.

Begin with a very clean, glass or plastic container with a lid. Ensure any detergent is thoroughly rinsed off. You can use cooled boiled water to make starter – lowers the chlorine. If you ever have too much mixture, tip some into the compost, or use it to make bread or pancakes but add 1-2 t active dry yeast to the mixture, to ensure good rising. The starter is “mature” when it has frothy bubbles on top, and a thick lattice of bubbles throughout the rest of the mix. Now you are ready to make some great sourdough bread.

Day 1 tip 50gm flour (usually unbleached bread flour) & 50gms(mls) warm water into the container, stir and cover loosely, leave in a warm place, preferably 20-25°C.

(you can use equal quantity by weight or volume, if using weight then the starter is at 100% hydration if you use volume then the starter will be 166% hydration)

Day 2 repeat adding flour and water as per Day 1.

Day 3 Tip most of the starter out, then stir in 50gms of flour and 50mls water.

Repeat Day 2 and 3. After 4-5 days you should be getting a few bubbles.

Day 6-8 -Should have some serious bubble activity by now, if not, tip most out and repeat the discarding and feeding, for up to 14 days. When it is very active, it should bubble up to nearly double in size, in about 6-12 hours after feeding, then it starts to drop and lose activity.

Day 15 Onwards You have your own starter, from now on you don't need to continue these steps. Start using, feeding and maintaining your new family member. Some people even give their starter a name!!!

Simple Sourdough Recipe from one of my Sourdough “buddies”.

Written in texta on the lid of some starter she shared with me.

1. Combine 2/3rds of your tub of active starter (about 200gms) with 500gm Organic Bread flour or Artisan Euro style flour.
2. Add approx. 320mls water.
3. Knead 2 mins add 1 t salt.
4. Knead until shiny (6-8 min in mixer.)
5. Rise 1 hr. Stretch and fold until shiny and taut.
6. Allow to rise, form bread, rise again Bake!!!

Program for Maintaining a Healthy Sourdough Starter.

An easy way to make sourdough bread without accumulating a huge amount of starter or having to throw out a lot of excess starter.

Begin with the premise that sourdough culture is quite hard to kill.

1. Approx. two days before you are going to make bread, remove the starter from the fridge.
2. Feed the starter with 50gms of warmish water and 50gms of flour, stir very well, replace the lid but not tightly.
3. Leave the starter at room temperature, preferably about 20-25°C.
4. Twelve to 24 hours later, repeat the feeding. Can give the starter a stir occasionally.
5. When the starter has doubled in height/size in the container and is a thick network of bubbles, then it is ready to make your next batch of sourdough bread.
6. Mix your batch of dough using almost all your mature, active starter.
7. Feed the scrapings that are left in the container with 50gms of flour and 50gms of water, stir well, place lid loosely back on the jar.
8. Leave the starter in a slightly warm place for about 1 hour, until some bubbles are visible.
9. Put the starter in the fridge and leave (no need to feed) until you wish to make sourdough bread again. Can be from 2-6 weeks.
10. Go to Step 1.

Extra Hints

- a) If you don't use your starter for a few weeks, it may look grey, black, ugly and smell bad, **this is not the end of the world**. Scrape all the starter out and discard, but feed the bare scrapings that are left with 50gms of flour and 50gms of warm water. Leave for 8-12 hours, throw the mixture out again and re-feed. May need to clean the container. In 8-12 hours, again, it should be recovered and quite happy again. Repeat if necessary. Go to step 2.
- b) If you wish to make extra starter for more loaves, just double or triple the amount of flour and water each time you feed the starter.
- c) If you are going away for an extended time, and you don't trust your relatives to mind the starter for you, or you don't have access to a "sourdough hotel" (***there really are such places in Europe***) then spread a tablespoon of mature, active starter very thinly on baking paper, leave to become completely dry, crumble into a small container with a lid. When you return, you can rehydrate a few flakes in a tablespoon of warm water, leave for an hour, then just Go to step 2.
- d) You can convert a rye starter to wheat or a wheat starter to rye, take a teaspoon of whichever active starter you have, feed with the replacing flour.

To Make Delicious Bread Using an adaptation of a Dan Lepard Method.

Ingredients this is dough at approx 67% hydration

4 C (600gms) Unbleached Bread Flour or Artisan Euro ½ C (75gms) Rye or Wholemeal Flour

400-450gms (mls) warm water 250gms active “mature” starter 2-3 t salt

1. Measure everything, except the salt, into your large mixing bowl. (Autolysing is a technique in which you delay adding the salt for at least 20mins and up to 2 hours, it is not required, but it is a great way to improve your bread).
2. Use a strong spoon or dough whisk, mix for 30 secs, only until the mixture is roughly blended, leave for 10-20 mins.
3. Don't be afraid to add more water, wetter doughs mean bigger bubbles in the loaf.
4. Stir the dough again, leave for at least 10-20 mins.
5. Oil your bench well. Scrape dough out of the bowl onto the oiled surface
6. Sprinkle the salt over the dough, knead for 20-30 secs.
7. Scrape clean your bowl and lightly oil it.
8. Tip dough back into the bowl. Cover with a freezer bag/lid and leave to rise, in a warm spot, for 2-4 hrs. Folding and stretching, each hour or so.

STRETCH and FOLD- tip dough onto oiled bench and using wet hands, stretch one end of the dough and fold to the centre, repeat from the other end. Turn 90 degs and stretch/fold the other edges into the centre. Return to the bowl.

9. Cover and leave to rise. As you stretch and fold, you will feel the dough tightening and getting stronger. The dough should rise, and there should be quite a few fine bubbles through the dough. When the dough is strong and full of tiny bubbles it is ready to shape into loaves.
10. When the dough is really, well risen, tip it gently onto a lightly floured bench.
11. Cut the dough in half with a dough chopper, gently dimple press the dough into a rectangle.
12. **Gently** tuck, roll and press each piece into a log. Don't squeeze out all the bubbles.
13. Prepare a “banneton”, grease (spray with baking spray) then dust the mould well with fine semolina, place the dough into the mould, seam side up.
14. Leave to rise in a slightly warm place for 2-4 hours, or until double in size.
15. **OR** you can “**retard**” them by sliding the dough filled banneton into a plastic bag and placing in the fridge overnight, this develops more “sour” flavour. Then next morning, bring them out and leave to warm and rise.
16. When loaves are nearly risen, pre-heat a black baking tray in your oven (240-250°C). (I am not a big fan of pizza stones, they are too thin and need really, long pre-heating.)
17. Sprinkle top of dough with fine semolina, place peel on top and flip, carefully remove banneton, lightly, but decoratively, slash the crust. Quickly but firmly slip the bread onto the hot oven tray, spray dough and tray with water, shut the oven door immediately. You **may** spray water into the oven every min for the next 5 mins. You may also place a pre-heated “cloche” over the bread, for the first 15-30 mins of baking, then remove. After 15 mins you may lower oven temperature to 200-220°C.
18. Bake for 25-45 mins in a hot oven, may need to rotate near the end of the baking, or even turn the temp down and cook longer if you want different crusts.
19. Tip out onto a cooling rack, **try hard** to allow to get cold before cutting.

To Make Delicious Waffles Using Spare Starter

When you have too much starter, don't throw it away, just use a couple of cups of it to make delicious waffles. Such a wonderful treat for dessert or an indulgent breakfast. The more time since you have fed your starter, the stronger flavour the waffles will have.

Ingredients

At least 2 C Leftover mature starter	1 large egg	$\frac{1}{4}$ - $\frac{1}{2}$ C warm water
2 T sugar	$\frac{1}{2}$ t salt	2-4 T butter - melted or oil
1 t Carb Soda		

Can also add $\frac{1}{4}$ C bread flour if mixture seems too weak.

1. If you don't have enough starter but want to make waffles, you will need to increase the quantity by giving the starter you do have, a generous feed, about 24 hours before you are going to use it.
2. Pour all your starter into a bowl, feed the scrapings left in the container, with equal amounts of flour and water and put away for breadmaking.
3. Stir a little of the warm water into the starter to begin thinning it to the consistency required, pourable but not thin and runny.
4. Blend in the melted butter, the egg, salt and sugar.
5. Dissolve the carb soda in a little warm water, stir into the batter.
6. This will start bubbling. Leave for about 10 mins. If mixture is too thin, add a little extra bread flour, if too thick add a little more warm water.
7. Heat your waffle iron. When hot, remove from near gas and spray with baking spray, you only need to grease once.
8. Stir the mixture to make sure it is well blended.
9. Using a cup add about $\frac{1}{4}$ - $\frac{1}{2}$ C of batter to the hot waffle iron. Close. Cook for 1-2 mins.
10. Turn waffle iron over and cook the other side.
11. When golden brown, tip onto a wire rack to cool.
12. Serve immediately with your favourite toppings - maple syrup, ice cream, fruit toppings, bacon and eggs, icing sugar etc.
13. Or maybe use the same mixture to make pancakes or pikelets, by adjusting the thickness of the batter with flour or water.

Advanced Information

INCREASING THE VOLUME OF YOUR STARTER.

A mature starter can be mixed with equal parts of flour and water and then allowed to sit, covered, in a warm place for 5-8 hours until it becomes quite bubbly. It then may be refrigerated for 24 hrs. You can then choose to use some or to feed it. In either situation, it is preferable to return it to room temperature first.

Hydration and Bakers Percentages?????

Two topics that serious sourdough aficionados become very passionate about, but are a bit of a mystery to most of us, are Hydration and Bakers Percentages. If you become VERY serious then you will need to study up on these 2 very important things, but I will give you a very brief, summary that will suffice for now.

Hydration

Hydration is a figure that is used to describe how wet is your starter or dough mixture. It is calculated by working out the weight of the water/liquid as a percentage of the total flour weight in any starter or dough.

For example, starter prepared by equal weights of water and flour is 100% hydration –
 $50\text{gms water divided by } 50\text{gms flour} = 100\%$

A starter prepared by equal volumes of water and flour is 166% hydration because half a cup of flour is 75gms and half a cup of water is 125gms ($125 \text{ divided by } 75 = 166\%$)

Bakers Percentages

Sourdough recipes are frequently calculated very precisely and all ingredients are quoted as a percentage of the total **flour** content. So, in any recipe the flour amount is Bakers Percentage 100% and all other ingredients are compared to that amount.

So, if a recipe had 500gms of flour and 400gms of water, the flour would be Bakers Percentage 100% and the water Bakers Percentage 80%. Once you get the hang of these figures you can easily scale any recipe to different sizes.

Measuring Matters.

Digital scales make sourdough breadmaking much more reliable than when measuring using cups. Small errors in measurement can alter a dough significantly.

Further reading – Blogs, books etc to help you navigate the sourdough world.

Sourdough Companion run from Tasmania

www.sourdough.com particularly check out SourDom tutorials and recipes

Books from Dan Lepard or Peter Reinhart

www.northwestsourdough.com (mostly only paid courses now)

**facebook group from Teresa L Greenway perfect sourdough or
facebook group run by one of our customers Sourdough Baking Australia & New
Zealand**