

It's alive!

Sourdough, or natural leaven, produces one-of-a-kind breads

by Doug Brown

Levain, masa madre, levito naturale, sauerteig, desem, chef – all words for the same thing, the result of simply fermenting flour and water. With proper care, natural leaven, or sourdough, will produce the best bread in the world.

Does it have to have a sour flavour? No! It will have a complex flavour profile vastly different from a yeasted bread, especially one containing added sweetener. Microorganisms in your leaven use the starch and minerals found in the flour to ferment, while the organic molecules create the flavours.

Let's look at leavening agents – the expansive force in all types of baked goods. Most bread is made with single-species yeast feeding mainly off the carbs in the grains and any added sweetener. Baking soda and baking powder are used for quick breads. For some of us, the true test is to be able to produce a great bread using only flour, water, and salt – naturally leavened breads.

How can the home baker accomplish this using wholegrain flours (wheat, spelt, Kamut/Khorasan, or rye)? First and foremost, we must look at what is going on in an active natural leaven.

The fermentation of flour and water has been happening for thousands of years in all cultures. Northern Europe used rye predominantly, while those countries to the south used wheat in all its forms. As grapes grown in different regions and localities produce wines with vastly different flavours, so do breads made with natural leaven. Both are simple fermentation processes that are gently guided by human hands.

There is a company that has begun collecting and storing leaven cultures from around the world. Personally, I find it hard to fathom how they are able to maintain the individuality of each culture, as there is a natural tendency for microorganisms to mingle. I have given my leaven to countless people, knowing that they will produce bread significantly different from mine, since their homes or bakeries are full of different organisms – especially if they make sauerkraut, cheese, wine, etc. This is as it should be. It is what makes baking exciting. Not only will naturally leavened breads differ from person to person, they will be different from batch to batch.

STARTER

As I write this, we are in the midst of some very humid and hot conditions, so my leavened breads are much different from those produced in the depths of winter.

How do we get started? Well, the quickest way is to get some leaven from a friend and start caring for it in your own kitchen. Barring that, you can begin with whole rye flour and water, and make a soft dough. I recommend doing it in a glass jar so you can clearly see the fermentation process. Once it becomes active – as evidenced by expansion and the presence of bubbles, usually within 24-36 hours with rye – it should be fed enough flour and water to double its weight every 12 hours at room temperature.

If you choose to use a variety of wheat – including spelt, Kamut, or Khorasan –

the fermentation process will take a little longer (five to seven days) before becoming active. Again, in hot, humid weather everything happens faster. I advocate a soft dough, as I find it easier to handle, and it ferments a little slower.

Some bakers use a liquid leaven, equal weights flour and water, as they find this ratio works best for their breads. Whatever ratio you choose, your leaven will need to be cared for on a regular basis. At room temperature, it will require 12-hour feedings (more or less) that double its weight. (This works well if you are baking bread daily for a houseful of hungry people, or for customers.) Your leaven will be as unique as you and the manner in which you care for it. A leaven that is kept in a dehydrated state until use will produce vastly different bread than a liquid leaven fed every day in a commercial bakery.

If you are a science person, there is a wealth of information in books and on the internet to satisfy your curiosity. I met a biologist-baker who, upon tasting my leaven, detailed which organisms were predominant and the flavours they imparted. If you are less scientifically minded, use your intuition. Take good care of your leaven, as you would any living creature, and it will reward you with the best bread in the world: yours.

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Starter recipe

If you have a favourite cookbook that has a sourdough recipe that appeals to you, then by all means use it. But here is how I do it:

100 grams flour
70 grams water

Mix into a soft dough, and place in a mason jar with lid loosely screwed on. Allow to sit at room temperature (18-24°C) until you notice bubbles forming and volume increases. This could take anywhere from 2-7 days depending on flour, water, temp.

Add another 100g flour and 70g water. Let sit until bubbles form and volume increases. If leaven becomes too large for the jar, either get a larger jar or compost half of the leaven and continue feeding. Once it requires feeding every 12 hours, it is ready to use for making bread.

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Basic bread recipe (two large loaves)

1 kilogram flour
12-20 grams salt

Make a well; add 700g water and 250g of your leaven. Mix water and leaven as you slowly incorporate flour and salt. Add more water or flour to obtain a dough to your

liking. (A softer dough will ferment faster, and generally produces a lighter loaf with a more open crumb. A dry dough will give a tighter crumb structure and a smaller loaf.) Knead on a damp counter until dough is smooth and elastic, about 5-10 minutes. The leaven will naturally condition the dough as it ferments.

Let sit in bowl covered with damp cloth, plastic bag, or loose-fitting lid. We want it to be able to breathe but not dry out the surface. Every 40 minutes or so, empty onto damp counter, stretch, and gently fold back into a round. No need to get rid of all the air; focus more on stretching the gluten and incorporating new oxygen into the dough. Do this 2-3 times. Divide into final dough size. Shape, and let rest on counter for about 10 minutes.

Reshape into final form, place in pan or basket, cover and let rest for 1-2 hours. The longer it rests, the sourer the flavour profile. Place in very hot oven, 450-500°F, for about 10 minutes, then turn heat down to 350°F. Depending on size of loaf, in a pan or cooked on a stone, bake for another 20-40 minutes. Bread should sound hollow when tapped on bottom. Let bread sit for at least 8 hours before slicing, allowing the steam to continue to firm up the crumb and fully develop the flavours. Sourdough bread changes in flavour as it ages on your counter.

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First-aid for leaven

Have you ever tried to maintain a leaven, only to be greeted by a seemingly lifeless mess after forgetting about it for too long? Well, what looks like compost material can actually be salvaged and returned to robust health. Simply by scraping off the dark, ripe surface layer, you will find normal-looking leaven. By weighing what is left and feeding it so that it doubles in weight each time, you can rejuvenate your leaven. Depending how long you have neglected it, this may take as few as three feedings, or as many as seven. But trust me, it will regain its vigour.

If you know you are going to be away and not taking care of your leaven for an extended period of time, what can you do to avoid this situation? Some would advocate the freezer. A simpler solution is to spread some on a plate and let it air-dry. Once dry, you can bag it, put it in a jar, or simply leave it on a plate.

I knew a Finnish baker who never kept a liquid leaven in the fridge. She simply had one bowl for her sourdough breads, and never washed it. She would scrape the bowl, add more flour and water to the dried-up bits, feed it twice, and her leaven was ready to help make more bread.

