

## PARAMETRIC RECIPES

### BASIC LEVAINS

The most straightforward way to produce a levain is by mixing water and flour. The following methods are based on the principle of creating a propitious environment for yeasts to multiply (bud) and lactic acid bacteria (LAB) to thrive so that your dough will leaven consistently. Levains must be cared for and maintained on a daily basis for the yeasts and LAB to propagate, or else they will die off. The life span of a levain can be measured in hours; within a few hours of it being fed, you will begin to see some activity (carbon dioxide bubbles form and volume increases). As time passes, the yeasts and LAB will continue to feed and produce even more carbon dioxide, along with lactic acid and acetic acid, increasing not only the volume of the levain but also its sour taste. Be aware that starting a levain takes time, care, and patience.



For more on the life of a levain, see *The Evolution of a Sourdough*, page 2290.

### HOW TO Start a Liquid Levain

We suggest the following flours for starting this levain: bread; light, medium, or dark rye; whole wheat (high extraction); einkorn; Khorasan; or a mix of these. We don't recommend using high-gluten flours. If you feed the levain regularly, it will develop more and more lactic and acetic acid flavors over time, which you'll start to taste in your breads. The souring process levels off after around 10 days. Feed the

levain twice a day if you want to produce a stronger metabolism (more microbial activity results in more depth of flavor), if it's summer, or if you live in a very warm climate or work in a very warm space, regardless of the weather outside. For home bakers maintaining a levain, you need to make only enough levain to both make your bread and feed it each day.

- 1 Combine water at 24 °C / 75 °F and flour in equal parts (or 60% water for a stiff levain) in a plastic tub or glass jar.
- 2 Mix until homogeneous using your fingers, a whisk, or a rubber spatula.
- 3 Cover with an airtight lid, and reserve in an area where the ambient temperature is at or close to 21 °C / 70 °F.
- 4 Wait 48 hours. You'll start to see some activity in the batter in the form of carbon dioxide bubbles.
- 5 Remove 75% of the culture. Add an equal amount of flour and water (or up to 125% water for a liquid levain; 60% water for a stiff levain) at 24 °C / 75 °F to replace the amount you removed and mix until homogeneous.
- 6 Within 24 hours, repeat step 5.
- 7 Repeat steps 5–6 on a daily basis. Try to do this at approximately the same time (or times) every day within an hour either way. By day four of doing this, you will have built the foundation of what will be your levain.

### TIPS FOR LEVAIN MAINTENANCE

- Before you use your levain's storage tub or glass jar, wash it with a mild soap (we suggest hand soap). Do not use sanitizing solutions to wash and clean your levain's storage container because they could adversely affect the yeast and LAB.
- You don't need to empty and clean the levain container every day (in fact, we don't clean our levain tubs); simply clean the sides of it using a rubber spatula.
- We recommend using 15.5 °C / 60 °F water in the hot summer months, 21 °C / 70 °F during mild weather months, and 24 °C / 75 °F during the colder months.
- Feed your levain twice a day if it's summer or if you live in a hot climate.
- Don't use high-gluten flours to feed your levain; they contain less starch, which enzymes convert into the sugars that become food for yeast.