# Manipulating the Sourness of your Sourdough

## HOW TO MAKE A MORE SOUR SOURDOUGH

There are two main acids produced in a sourdough culture: **lactic acid** and **acetic acid. Acetic acid**, or vinegar, is the acid that gives sourdough **much of its tang**. Giving acetic acid-producing organisms **optimal conditions to thrive** and multiply will produce a more tangy finished product. Here are some ways to achieve this.

### 1. Adjust the Starter

- Maintain your starter at a **lower hydration level**. This means using a higher ratio of flour to water. Acetic acid is produced more abundantly in a **drier environment** like this while lactic acid-producing organisms seem to thrive in a wet environment.
- **Use whole-grain flours**, which the acid-producing bacteria love.
- **Keep the *hooch***, or brown liquid layer that forms on a hungry sourdough starter instead of pouring it off. Retaining hooch can add acidity to sourdough and help it develop tang.

### 2. Adjust the Bread Dough

While it may take a little trial and error, attempting to achieve a **longer, slower rise** may also contribute to a more sour sourdough. Try creating a slower rise by doing the following.

- **Find a cooler spot** for rising the dough. (Remember, warmer temperatures speed up fermentation and cooler temperatures slow down fermentation.)
- **Punch down** (degassing) the dough at least once, if not twice, before the final shaping of the loaf.
- Perform the **final rise** for **at least four hours** or **overnight in the refrigerator**. Take the dough out of the refrigerator and let it **sit at room temperature for about 30-60 minutes before baking.** Although many experts recommend that the last rise be a quick one done in a warmer environment, you will have better "oven-spring" by putting a cooler loaf into a hot oven.

## HOW TO MAKE A LESS SOUR SOURDOUGH

To create the opposite effect from above and create a more mild flavor in your finished sourdough, try these adjustments.

### 1. Adjust the Starter

- **Feed your starter regularly**. The temperature of your culturing area and strength of your starter will influence how often your starter needs feedings, which can be anywhere from every **8 to 24 hours**. Try increasing the frequency of your feedings to create a more mild taste. This should minimize the alcohol content and reduce the overall acidity of the sourdough. **Less acidity means less tang!**

### 2. Adjust the Bread Dough

- **Use more starter in the dough**. A larger percentage of sourdough starter in the dough allows it to both rise in a cooler location *and* have a **shorter rising time**. Both of these conditions help to tame the sourness in sourdough by **lowering acetic acid production**. (The amount of starter may need to be adjusted by season: more starter in the winter and less in summer.)
- **Add baking soda**. Baking soda is an alkaline substance. Adding it to sourdough **neutralizes** some of the acidity and gives the dough a little extra leavening boost.