

Sourdough Bread

INGREDIENTS:	INSTRUCTIONS:
<ul style="list-style-type: none"> 650 (or 700*) grams (2 ¾ Cup) warm filtered (non-chlorine) water. 50 grams oil (3 ¾ Tbls); neutral flavor (canola, avocado, or 1/2 stick butter). 300 grams sourdough starter† 40 grams sugar/honey (3 ¼ Tbls) 1000 grams unbleached or fresh milled flour; (~6 ½ - 7 cups). 15 grams fine sea salt (¾ Tbls) (non-iodized) 	<ol style="list-style-type: none"> Place large mixing bowl on gram scale. Zero the display reading with tare button. Add, in sequence: water, oil, starter, and honey. Mix together to incorporate wet ingredients evenly. Add flour on top of water. Add salt on top of flour. Gently mix or spread salt evenly through flour. Using a Dough Whisk‡, gently mix/fold all ingredients until flour is incorporated; 3-4 minutes. (Note: dough mixture will not be smooth). Cover bowl with lid, plastic wrap or shower cap. Let sit for 30 minutes. Every 30 minutes for 2 hours, scrape the sides of the bowl and fold the dough into the middle of itself, for about 60-90 seconds each time. After the fourth mixing (2 hour mark), scrape the dough from the bowl onto a floured counter surface. With floured hands, stretch and pull the dough into a 'log' shape, the length of which is the length of the number of loaf pans being used. [Note: The dough will be elastic and resist forming. It is counter-productive to attempt kneading or over-shaping the dough.] Cut the dough into the number of sections to equal the loafs being baked. Gently pick up each section and drop into an oiled or parchment-lined bread pan. (Alternatively, for artisan-style bread, place in Dutch oven lined with parchment. Allow dough to proof and rise for 8-12 hours, or when experience deems it ready. Bake at 350 degrees for 45-50 minutes.

* Increased hydration (more water) creates light, airy bread with softer crumb.

† 300 g = ~ 1 Cup. Some bakers suggest using between 1-2 cups starter, or 1 Cup / loaf.

‡ Tip: A Danish Dough Whisk and plastic scraping tool aid in mixing dough. Fold and manipulate dough in mixing bowl.

- Hint: If using a scale to measure, for ease of use set tare button to zero the scale, after placing the mixing bowl on the scale and sequentially at each step after adding each ingredient.
- Full recipe makes 2 lg / 3 med size loaves. For half batch; divide all quantities in half.
- Dough will initially appear rough and will be sticky. As the dough proofs and the gluten begins to develop, it will be less sticky and smoother. This progresses over the first 2 hours in the bowl with 30 minute periods of 'scrape & fold' of the dough. At 2 hrs the dough can be placed in Banneton basket, or on floured counter to make into loaves in loaf pans, and then set aside to rise. (It can be kept in refrigerator for up to 4 days, and then set out to rise).
- For artisan style bread, put on baking stone, or in Dutch oven lined with parchment paper.
- Consult online sources and recipe books for variations of recipe and method.



Danish Dough Whisk & Scraper

Sourdough Waffles

INGREDIENTS:	INSTRUCTIONS:
<ul style="list-style-type: none"> ~ 2 cups mature sourdough starter 1/8 – 1/4 tsp salt 1/4 tsp baking soda 1/4 tsp baking powder* 1 egg** 1-2 tablespoon oil (olive, avocado, etc.) Milk 1 tablespoon sugar/honey (optional) <p>*Optional</p> <p>**Egg substitute: use soaked chia seeds as a binder. (1 Tbsp chia + 3 Tbsp water/milk. Let sit for 15 min prior to use).</p>	<p>Note: The sourdough starter is the batter. Use mature or discard starter. Create enough quantity by anticipating needed amount, and feed starter accordingly. Alternatively, extra flour and milk/water can be added at time of batter preparation to increase amount of batter. Note that the 'rise' in waffles comes from the baking soda reacting with acids in the starter culture, which happens quickly to create light fluffy waffles.</p> <ul style="list-style-type: none"> Add sourdough starter to medium sized mixing bowl. Add remaining ingredients. Add enough milk to reach desired batter viscosity. Important: Add baking soda into the batter just prior to baking waffles (or pancakes) due to the reaction that causes bubbling/foaming of batter. For variety, add fruits, berries, chocolate chips, etc.

Sourdough Starter

- Feeding starter between uses: Pour off and discard the liquid alcohol (called “hooch”) along with excess starter, and add and mix together a small amount (i.e., 1/3 Cup) each of flour & water in a 1:1 ratio. If left at room temp on counter, feed every 1-2 days, as needed. For less frequent feedings and use, store in fridge for up to a week between feedings. This slows down the fermentation reaction (puts it to sleep). Lids on starter jars/containers should be loosely placed to allow gas to escape. [Watch tutorial videos linked below for alternative ways to store and maintain starter between uses].
- Prior to making sourdough bread dough for baking, do a 1:3:3 feeding. If there is a layer of alcohol floating on the surface of the starter, pour it off and discard an amount of the old starter, such that when adding flour & water the resulting amount will be the desired amount of mature starter needed in the recipe. (Example: 50 g starter, + 150 g flour, and 150 g filtered water). If more starter is needed, use more flour & water, keeping a 1:1 ratio. (Note that when using an experienced starter culture, the exact amount of starter reserved and used in the 1:3:3 amount may vary. (Note: With experience the exact measurements become less critical and can be estimated).
- When mixing sourdough bread dough for bread making, use starter that has matured at room temperature for 5 to 10 hours. It will appear bubbly and foamy when ready.
- Prior to baking, feed with larger amount (i.e., 1 cup) to create 300 grams useable starter. Use more if needing additional quantity for waffles or for larger batches of bread dough.
- Check starter daily. If a layer of brownish-colored liquid (hooch) forms on surface it indicates that the starter cultures have metabolized available carbohydrate (flour) and are ‘hungry’ and need a feeding. This alcohol is a byproduct of the fermentation process in the starter. If the alcohol hooch is stirred into the starter it will create a more acidic dough and flavor. The alcohol evaporates during baking. Stirring the starter daily or every other day tests for texture and activity, and the need for feeding.
- If mold develops in the starter, it generally means the starter has not been cared for properly. It should be discarded and started again. Mold spores compete with wild yeast/bacteria for carbohydrate resources. A healthy sourdough starter culture will outcompete the mold spores. As a last resort, if the molding is not very established or is on the sides of the container, use a spoonful of visually unaffected starter in the center/middle and transfer to clean jar and re-develop the starter. Alternatively, start a new culture from scratch.
- Important: Avoid chemicals which kill the culture organisms.
 - Use clean tools and jars. Wash and rinse off soap residue.
 - No chlorine (use filtered water)
 - No bleached flour (use unbleached flour or home-milled wheat).

Resources & Sources

Danish Dough Whisk: [Link Here](#)

Bowl Covers for Bread Proofing: [Link Here](#)

Sourdough Tutorial:

- [Link Here](#) <https://www.youtube.com/watch?v=K49J40z01F0>
- [Link Here](#) [<https://youtu.be/K49J40z01F0>]

Making and maintaining Sourdough Starter:

- Avoiding Mold: [Link Here](#) [<https://youtu.be/oXZjtBldqEQ>]
- [Link here](#) [www.theperfectloaf.com/7-easy-steps-making-incredible-sourdough-starter-scratch/] , or
- [Link here](#) [www.farmhouseonboone.com/make-sourdough-starter-scratch/].
- [Link Here](#) [Rose Red Homestead: <https://www.youtube.com/watch?v=y5QKjfDlKkK>]
- [Link Here](#) [Mary's Nest: <https://www.youtube.com/watch?v=LJcwIWhkFtk>]