## UNSIFTED

These recipes are a collection of favorites from members and friends of The Bread Lab. You will notice commonalities in each. And all recipes use $100 \%$ unsifted flour. We wanted to create a resource to highlight that it's really not too difficult to bake with whole grains. Secondly, we are proponents of being flexible and realizing that things don't have to be "perfect" to taste delicious. You'll notice that, with the exception of the porridge recipe (which is intentionally extra flexible), each of these recipes have ingredient amounts listed in both volume and weight measurements. The weight measurements tend to be more precise, however we have tested all of the volume measurements and found them to work just fine. If you are planning on baking regularly, you may find purchasing a small food scale to be worth the investment as they can make the baking process easier. We hope you enjoy.

## Make Your Own Sourdough Starter:

1. Measure out equal parts flour and water in a small bowl.
2. Stir until well mixed.
3. Leave the mixture out at room temperature covered with a loose-fitting lid or towel.
4. Feed the starter with 1-2 Tbsp. each of flour and water every day in the morning and at night and stir until mixed.
5. You should start to see bubbles in the starter in about 3-5 days depending on the environment where you live. After 5 day your starter is probably active and ready to use.
6. If you don't think you'll be baking for a few days, you can store your starter in the refrigerator and feed weekly or continue to store at room temperature and feed daily.

## Sourdough Maintenance

There are many ways of keeping a sourdough starter alive. The most important criteria in choosing one is that it fits your schedule, not the opposite. Sourdough starters are a community of microorganisms that, thanks to its diversity, thrive with minimum inputs such as water and flour. Thus, doing harm to your starter will be more difficult than you might imagine.

## Starter Feeding:

$3 / 4$ cup / 100 g whole wheat flour
$1 / 4$ cup / 70 g water
$1 \mathrm{tsp} / 5 \mathrm{~g}$ starter (seed)
Mix water and starter until the starter is dissolved. Add flour and mix until you get a homogeneous dough. Let it rest for 10 hours at room temperature or put it in the refrigerator.

Such a starter can be kept in the refrigerator for up to two weeks before requiring some attention (repeat the above-mentioned steps). In case you forgot to feed your starter, discard the dark, watery substance on top, take a teaspoon of what is left and add flour and water as written above.

When you intend to bake with your starter, it is a good practice to feed it instead of using it straight from the refrigerator. Suppose you will be making an Approachable Loaf: 10 hours before you plan on mixing the dough take a tablespoon of starter, dissolve it in $1 / 2$ cup lukewarm water and add $11 / 4$ cup whole wheat flour. Mix and let it rest. You will be able to tell when the starter is ready to be used by its characteristic sour flavor and scent and by the presence of many air bubbles.

## Curiosities:

The amount of time that is required for the starter to go through the amount of flour that you have added to it will depend on:

- Stiffness of the starter $\rightarrow$ The runnier the starter the faster it will turn sour and be ready to be used. You can make a runnier starter by adding more water.
- Temperature $\rightarrow$ The warmer the temperature of the environment where you place the starter, the more active the starter will be, hence require less time to be ready to be used.
- Amount of seed starter $\rightarrow$ The higher the amount of the seed starter you add (in the recipe outlined above is 1 teaspoon) the less time it will need to ferment.


## Approachable Loaf

*This recipe is quite forgiving. Don't fret about measuring everything out "perfectly". Refer to the previous "Sourdough Maintenance" for information on feeding your sourdough starter.

Yield: 2 loaves

## Ingredients:

$53 / 4$ cup / $773 \mathrm{~g} \mathrm{100} \mathrm{\%}$ unsifted (whole wheat) flour
3 cups / 710 g water
2 TBSP / 45 g honey
$1 / 4$ cup +2 tsp / 45 g oil
2 tsp / 7 g instant yeast
1 cup / 273 g sourdough starter ( $\sim 70 \%$ hydration; 70 parts water for every 100 parts flour)
1 TBSP / 20 g fine-grind salt
In a medium-sized bowl, gently hand mix flour, water, honey and oil. (You may find it easier to whisk together water, honey and oil before adding liquids to the flour.) Cover and let sit for 3040 minutes. Add instant yeast and starter to the flour mixture. Now, use your hands to work the mixture until yeast and starter are well incorporated into the dough. Add salt. Continue to hand work the dough until it is formed into a smooth and cohesive mass. This can be done in the bowl or by removing the dough from the bowl and working on a flat surface or countertop. Place dough back into the bowl, cover, and let sit for 45 minutes. Fold the dough. Cover and let sit for another 45 minutes. Now divide the dough in half and use a dough knife to pre-shape on a flat surface. Oil two loaf pans. Let sit for 30-40 minutes. Shape and place in loaf pan. Now, proof at room temperature until the dough rises to the edge of the loaf pan (usually about $11 / 2$ to $21 / 2$ hours). Preheat oven to $425^{\circ} \mathrm{F}$. Load oven and turn temperature down to $375^{\circ} \mathrm{F}$. Bake for 45 minutes.
*Alternatively, dough can be mixed using a stand mixer, however we have found hand mixing to be quite doable with less cleanup.


## Unsifted Sourdough Crackers

## Ingredients:

For the dough:
$21 / 2$ cups / 300 g sourdough starter ( $\sim 70 \%$ hydration; 70 parts water for every 100 parts flour) $1 / 4$ cup / 80 g water
$11 / 2$ cups / 200 g whole wheat flour
3 TBSP / 30 g olive oil
2 tsp / 5g salt
$1 \mathrm{tsp} / 5 \mathrm{~g}$ honey
For brushing:
3 TBSP / 20 g olive oil
3 TBSP / 20 g water
Mix all the ingredients in a medium-sized bowl until a homogeneous dough forms and all flour is incorporated. If dough remains on the dry side, you can add 1 TBSP water at a time until all of the flour is incorporated. Cover and let the dough rest for about 30 minutes. On a floured surface, use a rolling pin to roll the dough to a thickness of a $1 / 10$ of an inch. Use a dough docker or a fork to poke the rolled dough. Prepare a mixture of 3 TBSP ( 20 g ) water and 3 TBSP ( 20 g ) olive oil. Use a pastry brush to distribute the mixture on the rolled dough. Now, use a pizza wheel to cut $11 / 2$ inch-wide squares. Sprinkle with coarse salt and let the dough proof for about an hour. Bake on a cookie sheet at $350^{\circ} \mathrm{F}$ for 10-14 minutes until crackers are golden brown.


## Unsifted Cookies

*Feel free to be creative and experiment with different types of flour. We like using half Skagit 1109 whole wheat flour and half Brasetto whole rye flour, but most any whole grain flour will do.

## Ingredients:

$11 / 2$ cups / 340 g butter (room temperature)
$11 / 2$ cups (tightly packed) / 275 g brown sugar
3 eggs
$1 / 4$ cup $+1 \mathrm{tsp} / 95 \mathrm{~g}$ honey
2 tsp / 6 g vanilla
1 TBSP / 9 g salt
$11 / 2$ tsp / 6 g baking soda
1 tsp / 3 g baking powder
$21 / 2$ cups / $350 \mathrm{~g} 100 \%$ unsifted (whole grain) flour
3 cups / 300 g oats
$3 / 4$ cups / 150 g kasha
1 cup / 150 g cocoa nibs
In a mixer, combine butter and brown sugar. Mix until blended. Whisk eggs and honey and add to mixture. Then, add vanilla, baking soda, baking powder and salt. Mix. Add flour, oats, kasha and nibs, mixing slightly after each addition. Chill dough in refrigerator for about an hour. Drop onto baking sheets in tablespoon rounds. Bake at $350^{\circ} \mathrm{F}$ for $8-10$ minutes. Excess dough can be frozen for later if desired.


## Unsifted Pie Dough

One of our favorite uses for this dough is a simple quiche. Saute whichever vegetables you have on hand, add some cheese, several eggs and a little milk and you've got yourself a filling. We think it makes a nice breakfast, lunch, dinner, or even second breakfast.

## Ingredients:

$11 / 4$ cup / 200 g unsifted flour
6 TBSP / 90 g butter
$1 / 2 \mathrm{tsp} / 3 \mathrm{~g}$ salt
1 pinch baking soda
2-3 TBSP / 30-40 g water
In a medium bowl mix flour, salt and baking soda. Add the butter (soft) and crumble it until completely mixed. Add water and mix just until the dough forms into a cohesive mass. Cover it with a plate or bowl to prevent it from drying out. Let the dough rest for about 30 minutes. While the dough rests, you can oil and flour your pie dish to prevent sticking. Now, roll, fill, bake and enjoy!

## Porridge - A Way to Repurpose Stale Bread

'Waste not, want not!' tends to be the motto of those who cook at home. Because whenever you have invested a lot of time and resources into preparing something, discarding it is not really an option. But as families these days are smaller in size, bigger batches can lead to leftovers that sometimes require creativity to be used. Anyone who has baked bread at home (or anybody who regularly purchases bread) has most certainly been faced with stale bread that is no longer appealing for making toast. But that does not mean it should be thrown away, as it is still perfect for making bread porridge.

The guidelines are really loose. The aim is to turn the tough bread into a soft mash that should then be seasoned as desired and served with whatever takes your fancy. Start by tearing the bread into chunks if still on the softer side or cutting it into cubes with a serrated knife if the loaf is well past its prime. Put the cubes of bread into a pot and cover them with cold water and leave in the fridge overnight or top with hot water if the craving for bread porridge needs to be satisfied the same day. When the bread cubes have softened, heat the mush up on the stovetop in the pot, stirring occasionally to prevent sticking. Keep simmering and mash any remaining bits with a wooden spoon. Add more liquid if the consistency seems too thick. If you desire a very smooth porridge, use a stick blender.

The bread porridge can be either savory or sweet. To make it savory, you could use stock instead of water and season it with herbs. Adding some fat (butter or olive oil) is always a great idea. Serve with some roasted vegetables, pickles and perhaps a grating of cheese.

To prepare a sweet porridge, you could use juice in place of water (be it apple cider or something else) and sweeten it with some honey or brown sugar and season with spices (cinnamon or cardamom, perhaps). Serve with stewed or poached fruit and toasted nuts or granola.

Works particularly well with sourdough, be it wheat or rye!


## UNSIFTED

How do we in The Bread Lab define whole grain bread? The answer is simple. Whole grain bread is made with flour in which the whole kernel goes into the mill and the whole kernel comes out of the mill (in flour form). The term "whole grain" is often used loosely. We frequently hear bakeries calling a loaf "whole grain" when it contains only a small percentage of whole grain flour. In some ways, this is a step in the right direction. After all, some whole grain is better than none. It is, however, still misleading. When bread made with a percentage of unsifted flour along with a percentage of white flour is labeled as whole grain, we dilute the meaning of whole grain.

We are advocates of unsifted flour. Flour that has not been run through a series of sieves to remove the bran and germ. Unsifted flour may be a bit coarser and darker in color. Who decided that these qualities are undesirable, thus we must remove them? The reasons given for sifting flour are varied. Some argue that this starts with the millers, who, in turn, might counter that the bakers demand sifted flour. To further complicate the matter, the bakers may say consumers won't purchase bread made with $100 \%$ unsifted flour. Still others argue that consumers simply aren't aware of the case for whole grain.

It may be economically favorable to sell a loaf made with half whole grain flour and half white flour. White flour is less expensive. But how can this be? Why is the flour for which production requires additional processing and expensive machinery less expensive? How can a flour that requires $25 \%$ more wheat to obtain the same flour yield be less expensive?

White flour with the bran and germ sifted off is the predominant flour choice in the United States. On average, white flour is around $75 \%$ extraction. Extraction rate is a baking term referring to the percentage of the original grain kernel remaining in the flour. A higher extraction rate indicates less of the bran and germ has been sifted off. Thus, a $75 \%$ extraction indicates $75 \%$ of the original grain kernel remains in the flour and $25 \%$ has been sifted off. When we remove the bran and germ to make white flour, we lose much of the nutrition. In one study, the removal of the bran and germ (at $72 \%$ extraction) in wheat resulted in a $67 \%$ loss of folate, $76 \%$ loss of iron, $80 \%$ loss of niacin, and $77 \%$ loss of thiamin. These are all nutrients which the FDA has required to be added back in their synthetic form to white flour labeled as "enriched". Does it not make more sense to leave these nutrients in our flour in their original form and simply not sift? In the case of wheat, white flour has also lost essentially all the fiber originally found in the grain-a nutrient essential for a diverse gut microbiome and, consequentially, for optimal immune function, metabolic rate, and nutrient absorption. Current American dietary recommendations for fiber intake are 25-38 grams per day. Most Americans eat half this or less. Recent research suggests that fiber recommendations should be raised to at least 50 grams per day if not higher. For reference, one slice of The Approachable Loaf contains about 5 grams of fiber. Most grocery store white breads have from 0-1 gram.

By refusing to sift, we are using everything that the farmer harvested. When flour is sifted, the removed bran and germ may be sold as low-value animal feed or even discarded as compost in
some situations. Why do we continue to stand by and devalue the most nutritious part of the grain? This is akin to using a $\$ 20$ bill as toilet paper. As plant breeders, yield is an important target. Is not a $25 \%$ loss of our final product yield equivalent to a $25 \%$ yield loss in the field? It's about the best use of the land.

Why $100 \%$ unsifted? Why would one value healthful, nutrient-dense food?
We need food to survive. Food fuels our heartbeat, cognition, and movement. Food also represents our need for something outside of ourselves. In the same way that we must eat to fuel life, we are fueled by community outside of our relationship with ourselves. Of course, humans have a right to choose their own food. Thus, if one wants to eat squishy white bread most days, that is their right. The truth is, we have put a premium on more nutrient-dense food. Squishy white bread (with a dose of calcium propionate and vital wheat gluten) is always less expensive than $100 \%$ unsifted bread made with no nonfood ingredients. Economic inequity is where the problem lies. Nutrient-dense foods are less available to those with smaller incomes. Industry has created the illusion of free will to promote their insider interests-gaining financially from decisions within the food system that contribute to our poor health.

Inequity is disguised as free will. This inequity cuts at the heart of our obligation to nourish all humans with healthful, nutrient-dense, minimally processed foods. Nutrient-dense, minimally processed food equates to UNSIFTED.

## References:

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