Sprouted Rye Sourdough Bread

Sprouted rye sourdough is a simple bread, made directly from rye grain. It is purposely coarse in texture but holds together for slicing. The dough is easy to make if you possess a food processor with a strong motor and a large (5-quart) bowl. This is a favorite bread and one to choose when you are especially aiming to optimize your microbiome.

The combination of freshly sprouted grain and a sourdough leavening, produces pleasing and complex flavors. The sourdough leavening is essential to the final texture because the acidity will halt the action of the sprouted grain enzymes (amylase) before baking.

Flavor seeds such as caraway, toasted and ground, could be added for a change but I like this bread just as well without any flavor seeds. Another alternative would be to sprout a mixture of seeds, by substituting 5-10% of the rye grain with sunflower or pumpkin seeds. Wheat grain can be substituted for all or perhaps half the total rye.

The grain is first treated with half its weight of water and kept in a large, covered bowl while it completely absorbs the water and begins to sprout for 2 days. It is tossed and stirred morning and evening. After that the softened and slightly sprouted grain is ground in a food processor together with some salt, more water, and some sourdough starter until it forms a coarse but cohesive dough. The rest of the process is a first rise, followed by shaping, and a second rise before baking.

The dough can be prepared for baking in one of several ways: as an open pan loaf, closed pan loaf or sandwich buns such as steam-baked farls (quarter round sandwich buns). Baking at 350°F in the presence of steam is best. A closed pan loaf will self-steam.

Please note that the mature malt sourdough starter used in this recipe is always matured until there is no further gaseous fermentation and the acidity is at a maximum. In this way, only the most acid tolerant of yeast varieties are consistently present in saturation quantities. Other starters not brought to maturity in this way, may not give satisfactory results. It is also important when using large amounts of enzyme active malt in a dough, to allow a total fermentation time that is sufficiently long for enough acidity to develop to counteract the effects of the malt enzymes before baking. A recipe for this type of malt sourdough starter can be found at <u>www.wholegrainconnection.org</u>. The direct link is:

http://www.wholegrainconnection.org/sitebuildercontent/sitebuilderfiles/3simplemaltsourdoughstarter.pdf

Ingredients are for an open pan loaf or 8 farls

Loaf contains 522 *grams whole grains and* 47 *grams dietary fiber. Assuming* 16 *slices per loaf, one slice will contain* 32*grams whole grain and* 3*grams dietary fiber.*

Each farl sandwich bun will contain 65 grams whole grain and 6 grams dietary fiber.

Ingredients	Grams	Bakers Percent
Rye grain	500	100
Water (at room temperature)	250	50
Salt	7.5	1.5
Toasted and ground caraway seeds (optional)	5	1
Water	150	30
Mature malt sourdough starter	50	10

[] Add grain to large bowl (8 quart), followed by water. Mix and toss well until grain is thoroughly wet. Cover bowl and leave at room temperature. Toss and stir the soaking grain twice a day, at approximately 8 to 12-hour intervals for 2 days.

The bowl should be large enough to accommodate the swelling of the grain as it hydrates and sprouts. All the water will be completely absorbed by the grain. Stirring the grain keeps it evenly moist and well aerated. For best texture, sprouting for 48 hours is suggested. Longer sprouting times lead to greater amounts of roots and shoots.

[] Prepare a food processor with blade. Add all the sprouted grain. Sprinkle the salt on the sprouted grain. *Optionally, sprinkle the toasted and ground caraway seed on the sprouted grain.*

[] In a jug, weigh water and add the sourdough. Mix to disperse the sourdough and pour onto the sprouted grain in the food processor. Process the dough for approximately 3 minutes.

The amount of water used brings total hydration of the grain to 80% with respect to original grain weight. Duration of processing will depend on how coarse or fine you would like the final dough to be, and on the sharpness of the processor blade.

[] Add all the dough to another bowl for the first rise. Compact the dough, cover, and allow to ferment at 86°F (30°C) for 4 hours. *At this point the dough can be prepared either for baking as a pan loaf, or as farls.*

For an open pan loaf:

[] Line loaf pan $8 \times 4 \times 2.5$ inches ($20 \times 10 \times 6$ cm) with baking parchment. With moist hands form all the dough into an oval ball and place in the loaf pan *or scoop the dough and pack it into the loaf pan using a pair of spatulas*. Pack the dough into corners of the pan and smooth the top with moist fingertips. Cover with baking parchment and additionally a moist cloth unless there is humidity during the final rise.

[] Allow to rise for 2 hours at 86°F (30°C), preferably with humidity.

[] Preheat oven to 350°F.

[] Remove the moist cloth but leave the parchment paper cover in place for baking.

[] Bake at 350°F with steam for 1.5 to 2 hours.

[] Turn loaf out of loaf pan onto rack, remove parchment paper, and allow to cool to room temperature before slicing or storing.

[] Wrap in fresh paper towels or clean cloth and store in a closed container at room temperature.

For 8 large sandwich buns or farls

[] Divide into 2 equal weight portions. With wet hands mold each piece into a ball. *As though making a snowball*. Place each ball of dough on parchment baking paper on a baking sheet. With fingertips, press out to a disk 6 - 8 inches in diameter and half an inch thick, while keeping the rim smooth. Cut each disk of dough into four quarters (farls).

[] Cover with parchment paper and a wet cloth and leave to ferment at 86°F (30°C) for 2 hours. *Wet cloth is not necessary if there is humidity in the proofing box.*

[] Remove both the wet cloth and the parchment paper. Bake in steam at 350°F for 45 - 50 minutes. When using a home combination steam oven, there is no need to preheat the oven. Place in oven at ambient temperature. Bake for the required time after oven reaches 350°F.

[] After baking, invert the farls onto a rack and remove the parchment Allow the farls to cool to room temperature before slicing and serving.

[] Store in a closed container lined with fresh paper towels or clean cloth, at cool room temperature. *The paper or cloth prevents condensation on the bread and prevents molds that would form where condensation occurs on sides of container.*