

Pain De Mie Sandwich Loaf

With hard red wheat, bulgur, & an all-wheat-malt sourdough



In a previous *pain de mie* recipe the softness of the dough was enhanced with a porridge made with a portion of the flour. In effect the starch in the porridge was gelatinized.

Parched grains, are dried whole grains that have been cooked so that the starch is pre-gelatinized. These can be used instead of a porridge to good effect in bread. Examples of *parched wheat* include *bulgur*¹, *brewer's wheat flakes*, and *torrified wheat*². For bread, *parched grains*, especially bulgur and grain flakes, can be hydrated by presoaking in freshly boiled water, and when cool added to the flour and other bread ingredients to give interesting texture to the bread. *In practice, boiling water is added to the weighed portion of parched grains in an amount 4:1 ratio by weight. When cool, after approximately an hour, they are added to the flour and other ingredients.* This recipe can be made just as well with brewer's wheat or rye flakes instead of bulgur.

Parched grains can also be milled to flour in a home flour mill or in a spice grinder. Torrified wheat is best used as a flour rather than a pre-soaked grain. Coarse bulgur milled to flour is used in a modification of the following recipe.

Using only malt to make a sourdough starter is new here, but it was in wide use until about 1900 in Scotland to make a *barm* (sourdough). Also historically in England, the monks of Burton Abbey who were famed brewers of their own beer, added *brewer's wheat flakes* to their bread dough. This is also the history behind the British Granary® loaf.

There is a nutritional advantage to using a portion of *parched grains* because the processing makes available 2 to 3 times more of the naturally occurring folate than is found in unprocessed whole grains. In addition, the all-malt sourdough likely contains folate-producing lactic bacteria. Therefore, potentially the bread will have a high content of natural folate (vitamin B-9). *The bread can be lab. tested to prove that there is a greater concentration of folate, compared with whole grain bread made without parched grains, and without an all-malt sourdough.*

¹ Bulgur can be purchased in grocery stores or wholesale from www.sunnylandmills.com

² Brewer's Wheat Flakes and Torrified Wheat can be purchased from micro-brewing suppliers such as: www.oakbarrel.com and www.morebeer.com

The classic *pain de mie* sandwich loaf pan creates an approximately 4-inch square slice with a soft crust. The loaf self-steams inside a closed pan, independently of the need for steam in the oven. Initially the crust is firm or crispy, but once the loaf is stored in a closed container the crust softens. A range of flavor variation is possible by substituting different varieties of wheat and rye flours, using different parched grains and using alternative all-rye or all-naked-barley malt sourdough starters.

It's not easy in a first attempt, to choose ingredient amounts, such that the *pain de mie pan* is filled without spillover during baking and without gaps in the corners of the pan. Amounts are given for a hard red wheat flour, but there is considerable variation in flours, especially in the amount of water they can hold. You may need to adjust the amount of flour to use. In practice it is not necessary to perfectly fill the *pain de mie pan*. Instead, enough dough can be used to create a domed loaf, barely touching the roof of the pan. The slice is still good for sandwiches, and you will still have the advantages of baking the loaf in a closed pan that allows self-steaming.

Amounts given in the recipe are to fill a closed loaf pan 4 x 4 x 9 cubic inches = 2.4 US quarts or (10 x10 x 23 cubic cm = 2.3 Liters). Hopefully you can use these numbers to estimate ingredient amounts to use when your loaf pan is a different size. The dough should at least half fill the pan at the beginning of the final rise.

I. Method using coarse bulgur.

Amounts are for a closed loaf pan 4 x 4 x 9 cubic inches = 2.4 US quarts or (10 x10 x 23 cubic cm = 2.3 Liters). Preferably, organic grains and carbon filtered tap water should be used. Flour basis: 600 grams

<i>Ingredients</i>	<i>Amount in grams</i>	<i>Baker's percent</i>
Bulgur (coarse)	60	10
Boiling water 212°F (100°C)	240	40

[] At least one hour before making the dough: Add bulgur to a bowl, followed by the weighed amount of boiling water. Mix well and allow bulgur to soak, swell and cool for an hour, before mixing with other bread ingredients. *Protect the scale pan with a cork or basket mat when weighing hot liquids.*

<i>Ingredients</i>	<i>Amount in grams</i>	<i>Baker's percent</i>
Whole wheat flour	600	100
Wheat malt (enzyme active)	6	1
Salt	9	1.5
Water at 86°F (30°C)	150 - 270	25 - 45
All-wheat-malt sourdough (12-24 hours old)	30	5

[] Add cooled bulgur in water to the main mixing bowl.

[] Add and mix whole wheat flour, wheat malt and salt.

[] In separate jug: weigh water. *Start with the lowest amount.*

[] Add all-wheat-malt sourdough to the water and mix well, before adding it to the mixing bowl.

[] Mix in a stand mixer with dough hook. *Or mix by hand in a mixing bowl, at first with a spurtle until dough ball forms, and then knead the dough in the bowl using water moistened hands, by folding the dough from the edge to center and pressing with the fist, repeatedly all around.* Mix until the dough is smooth and extensible. The dough should be medium stiff and easily stretched. If too stiff, add more water in 30-gram amounts (5% with respect to flour) and continue mixing until all the water is absorbed and the required texture is achieved. *Make a note of total amount of water used for that batch of flour.*

[] Press the dough into a container with lid and allow it to ferment at 86°F (30°C)³ for 4-5 hours. *Dough should be distinctly puffy at the end of this time, although it may not have doubled in volume.*

[] *Water moistened hands, a clean water moistened board and a dough scraper are all that are needed to handle the dough. Do not sprinkle flour.* Punch dough down on a smooth surface and divide into two equal sized portions. Form a ball with each dough piece by flattening into a circle and folding from the edge to the center and gently pressing, all around. Invert the dough piece. Finish the dough ball on the board by rolling it around under the palm of the hands. Allow the dough balls to rest on the board, under a moist cloth cover for 15-30 minutes.

[] Prepare the baking pan with a baking parchment paper liner. *Use a sheet of parchment paper 12.5 x 16 inches (32 x 41 cm). Cut off a 4 x 16-inch (10 x 41 cm) strip from the length of the paper. Line the bottom and ends of the pan with this strip. The remaining piece will line the bottom and sides of the pan and lap over the dough as a cover. Cut a 4 x 4-inch (10 x 10 cm) square of parchment paper to separate the two dough balls.*

[] *Use the larger piece of parchment paper as a sling to lower the dough into the baking pan.* Arrange the two dough balls across the center of the paper, separated by the square of parchment paper; lower them into the baking pan. Gently press the dough to fill the lower corners. Fold the excess paper out and over the top edges of the pan. Cover with a moist cloth and allow to ferment and rise for 1-2 hours at 86°F (30°C). *The dough should approximately half-fill the pan initially, and after 1-2 hours when sufficiently risen it should three-quarters fill the pan and be within 0.5– 1 inch (1-2 cm) of the top edge of the pan.*



³ 86°F (30°C) is an ideal temperature for bread dough. Fermentation times are 2-3 times longer at 68°F (20°C) A constant temperature cabinet, dough proofing box or heated mat makes bread timing consistent and is recommended.

[] Preheat oven at 375°F (191°C). Fold the paper over the top of the risen dough and close the pan with the lid. Bake the loaf enclosed in the pan for 60 - 90minutes at 375°F (191°C). *When done, the crust should be deeply browned and the crumb springy. A pale colored crust and pastiness of the crumb suggests insufficient baking.*

[] After baking, immediately remove loaf from pan, allow to cool on a rack. Allow to cool completely before removing paper and serving. Store loaves in a closed container lined with fresh paper towels, or wrap loaves in paper towels, to allow the crust to soften.

II Method using coarse bulgur milled to flour.

Amounts are for a closed loaf pan 4 x 4 x 9 cubic inches = 2.4 US quarts or (10 x10 x 23 cubic cm = 2.3 Liters). Preferably, organic grains and carbon filtered tap water should be used.

Flour basis: 600 grams

<i>Ingredients</i>	<i>Amount in grams</i>	<i>Baker's percent</i>
Whole wheat flour	600	100
Bulgur flour (<i>coarse bulgur milled to flour in home mill</i>)	60	10
Wheat malt (enzyme active)	6	1
Salt	9	1.5
Water at 86°F (30°C)	390 - 510	65 - 85
All-wheat-malt sourdough (12-24 hours old)	30	5

[] In mixing bowl: Add and mix whole wheat flour, bulgur flour, wheat malt and salt.

[] In separate jug: weigh water. *Start with the lowest amount.*

[] Add all-wheat-malt sourdough to the water and mix well, before adding it to the mixing bowl.

[] Mix in a stand mixer with dough hook. *Or mix by hand in a mixing bowl, at first with a spurtle until dough forms, and then knead the dough in the bowl using water moistened hands, by folding the dough from the edge to center and pressing with the fist, repeatedly all around.* Mix until the dough is smooth and extensible. The dough should be medium stiff and easily stretched. If too stiff, add more water in 30-gram amounts (5% with respect to flour) and continue mixing until required texture is achieved. *Make a note of total amount of water used for that batch of flour.*

[] Press the dough into a container with lid and allow it to ferment at 86°F (30°C)⁴ for 4-5 hours. *Dough should be distinctly puffy at the end of this time, although it may not have doubled in volume.*

[] *Water moistened hands, a clean water moistened board and a dough scraper are all that are needed to handle the dough. Do not sprinkle flour.* Punch dough down on a smooth surface and divide into two equal weight portions. Form a ball with each dough piece by flattening into a circle and folding from the edge to the center and gently pressing, all around. Invert the dough piece. Finish the dough ball on the board by rolling it around under the palm of the hands. Allow the dough balls to rest on the board, under a moist cloth cover for 15-30 minutes.

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