## Sandwich Buns Whole wheat flour, bulgur flour, & all-wheat-malt sourdough



Fresh soft whole wheat sandwich buns are a lunch-time mainstay, as well as being good for breakfast toast or as a dinner bun. They can be made in a size to fit the occasion and the appetite. For a hearty lunch sandwich 4-inches in diameter works well, whereas a 3-inch or even a 2-inch bun might be easier for children to handle.

The ingredients are purposely few, essentially wheat, water, and salt, although the wheat is in three different forms: pre-cooked bulgur flour, malt, and whole grain flour, or whole meal as they say in Britain. A high protein whole wheat flour with 12% or more protein works well. These buns are a plain alternative to a rich brioche bun.

Softness is the result of high hydration, which is possible when a portion of the wheat is pre-cooked; bulgur is an example of precooked wheat. Softness is further enhanced by baking in the presence of plenty of steam.

## Method

Amounts are for 8, 12 or 16 buns (at least 4, 3, 2inches or 10, 8, 5cms in diameter). Flour basis is 500 grams.

[] On previous day, 12 - 24 hours ahead of mixing the dough, prepare a portion of all-wheat-malt sourdough starter with some of the reserve.

Ingredients	Amount in grams	Bakers per cent
Wheat malt flour	12.5	100
Water	16	125
All wheat malt sourdough starter reserve	1.3	10
Total	29.8	235

• In a bowl, mix malt flour, water, and all-wheat-malt sourdough reserve to a smooth paste. Cover the bowl and leave at 86°F (30°C).

- Stir to re-mix ingredients after 8 -12 hours and look for changes. Notice gassing, thinning texture, and aroma changes. Optionally measure the acidity (pH) with acidity test paper. The pH should be 4 or less before using as a bread ingredient.
- Use as an ingredient for making bread 12 -24 hours after first mixing ingredients.

Ingredients		Baker's
	in grams	percent
Whole wheat flour	500	100
Bulgur flour	50	10
Wheat malt (enzyme active)	5	1
Water at 86°F (30°C)	375 - 475	75-95
Salt	7.5	1.5
All-wheat-malt sourdough (12-24 hours old)	25	5

[] To mixing bowl, add whole wheat flour, bulgur flour and wheat malt.

[] In separate jug: weigh water. *Start with the lowest amount*. Add and dissolve salt. Add all-wheat-malt sourdough to the water and mix well, before adding all 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. Dough texture will not be fully developed until after the first rise. The dough should be medium stiff and easily stretched. If too stiff, add more water in 25-gram amounts (5% with respect to flour) and continue mixing until all the water is absorbed, there is no free flour 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)¹ for 4-5 hours. Dough should be distinctly puffy at the end of this time, although it may not have exactly 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. Form a ball with the dough piece by flattening into a circle and knead briefly, by folding from the edge to the center and gently pressing, all around for a minute. Invert the dough piece. Finish the dough ball on the board by rolling it around under the palm of the hands.

<sup>&</sup>lt;sup>1</sup> 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 or dough proofing box makes bread timing consistent and is recommended.

[] Divide the dough according to size of buns. *Dough should be weighed for truly equal sized buns. Weigh the total dough and calculate dough piece weight for each bun.* Use a dough cutter to divide the dough.

- 4-inch (10cm) buns: Flatten the dough ball into a disk. Divide the dough piece into 8 segments for 8 buns. Form dough pieces into dough balls.
- 3-inch buns (8cm): Divide dough piece in half, round each half and flatten each into a disk. Divide each dough piece into 6 segments for a total of 12 buns. Form dough pieces into dough balls.
- 2-inch (5cm) buns: Divide dough piece in half, round each half and flatten each into a disk. Divide each dough piece into 8 segments for a total of 16 buns. Form dough pieces into dough balls.

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[] Allow the dough balls to rest under a moist cloth for 15-30 minutes.
[] Line a baking sheet with a silicone mat or baking parchment paper. For exact sizing of buns on a baking sheet, place silicone containment rings of the desired size. When using a bun pan, prepare bun molds by oiling with a mix of olive oil and liquid lecithin, unless they are non-stick coated.
[] Flatten each rounded bun and round them again. Arrange the buns freely on baking sheet or in bun pan molds. Gently press the dough to approximately 0.5 inches (1 cm) thickness. Cover the bun pan with a moist cloth and leave for final rise at 86°F (30°C) for 2 hours.
[] Bake buns in steam at 212°F (100°C) for 45 minutes.
[] Allow buns to cool to room temperature on a rack, before cutting and serving.
[] Buns are best eaten fresh within 24 hours but can be stored wrapped in paper towels in a closed container at room temperature for up to 2 days.