

Buns- 100% whole wheat with fresh whole milk and egg

Fresh full fat whole milk and egg bring steamed whole wheat buns into the breakfast or holiday dinner bun categories.

The method is basically the same as for buns made with milk. The difference is that beaten fresh eggs are added after the first rise. Adding egg late in the fermentation prevents interaction between egg and the microorganisms naturally present on raw whole wheat. By the time of egg addition after the first rise of the dough, the majority microorganisms present are those of the sourdough, which interact favorably with egg proteins. It seems that with the addition of egg the dough needs to be steam-baked longer than plainer dough; steam-bake time at 350 °F might be 35-40 minutes.

Ingredients for 12 oval buns, 3 x 4 inches, based on 500 grams whole wheat flour.

<i>Ingredients</i>	<i>Grams</i>	<i>Bakers per cent</i>
100% whole wheat flour	500	100
Base wheat malt flour*	25	5
Salt	7.5	1.5
Fresh full fat whole milk at 86°F (30°C)	325	65
Mature whole wheat barm sourdough starter**	50	10
Water to adjust dough texture, if needed	25 -50	5 -10
Whole eggs without shell, beaten	100 (~2 eggs)	20

*Base wheat or rye malt grain with diastatic power greater than 100 (degrees Lintner/ pound of grain) is available from micro-brewing supply houses. Grind to whole malt flour using home grain mill.

** See whole wheat barm and sourdough recipes at www.wholegrainconnection.org

Method

[] In mixing bowl, mix flour and malt.

[] In a separate container dissolve salt in milk. Add mature barm sourdough. Mix well and add to flour-mixture in mixing bowl.

[] Mix until ingredients are completely incorporated in a medium stiff, smooth dough. *If dough is too stiff, mix in 5-10% water with respect to flour.* Leave to ferment in a covered container at 86°F (30°C) for 4 hours, for the first rise.

[] Return dough to mixing bowl. Add beaten egg. Mix well to a smooth cohesive and elastic dough. *Depending on type of wheat flour used, this dough can be extra stretchy and sticky.*

[] Divide into 12 equal-weight pieces. Round dough pieces and cover them with a moist cloth. Rest at 86°F (30°C) for 15-30 minutes.

[] Preparation for final rise depends on the planned use of either a stove top steamer or steam-baking in a combi-oven:

- **For stove top steaming in bamboo steamer**, place rounded dough pieces on individual 3 to 4-inch squares of baking parchment paper. Gently press and pull into an oval shape with fingertips, keeping thickness of a half inch. Cover with a moist cloth and leave for final rise at 86°F (30°C) for 2 hours.

- **For combi-oven steaming on perforated or plain sheet pans**, place 12 rounded dough pieces on a half-size sheet-pan (18 x 13 inches) lined with baking parchment paper. Gently press-stretch dough pieces into an oval shape with fingertips, keeping thickness of a half inch. Cover with a sheet of baking parchment and a moist cloth. Leave for final rise at 86°F (30°C) for 2 hours. *Note: the cover of parchment paper maintains a continuous shiny crust on top of buns and is kept in place during the oven steaming.*

[] Steam cooking either in stove top steamer or in combi-oven:

- **For stove top steaming in bamboo steamer**, bring water to a boil below a Chinese bamboo steamer. Check water level frequently and replenish water when needed throughout cooking time.

Remove steamer tray and arrange buns on parchment paper on the steamer trays, with enough space to allow steam circulation. Replace steamer tray or basket on steamer. Steam vigorously for 30 - 60 minutes. *Buns are done when they no longer retain an indentation and are springy to the touch. If buns are pasty in texture rather than simply soft, the cooking time was not long enough.*

Remove steamer tray or basket from steamer before removing the buns to a cooling rack.

- **For combi-oven steaming on sheet pans**, set combi-oven to 100% steam at 350°F; usually there is no need to preheat oven. Set oven timer for 35-40 minutes to start when oven reaches 350°F.

Remove wet cloth from risen buns but leave the parchment paper cover in place. Place baking sheet on rack in center of oven. Steam-bake for 35-40 minutes after temperature of 350 °F is reached. *Buns are cooked when they no longer retain an indentation and are springy on touching. If buns are pasty in texture rather than simply soft, the cooking time was not long enough.*

[] Cool buns on a rack after removing parchment paper.

[] Serve fresh buns after cooling for at least 45 minutes.

Or allow buns to cool completely. Store in a closed container at normal room temperature, between paper towels. Slice in half and lightly toast before serving.