

Simple Sourdough Whole Wheat Tortillas

The American South West and much of Mexico have a strong tradition of whole wheat tortillas. These tortillas were likely originally made from *Sonora* wheat. *Sonora* wheat has light golden colored bran, and the wheat grain is soft enough to be ground to whole wheat flour by hand, on a metate.

Sonora wheat can be nicely stone ground by electrical power, to make whole wheat flour suitable for making flour tortillas. It is now being grown by several farmers in California and beyond, and is becoming increasingly available to make truly authentic South Western whole wheat flour tortillas.

To make tortilla dough with whole *Sonora* wheat flour, the optional olive oil, butter or lard is first rubbed into the flour. *Fat or oil is not at all necessary, but if used, can be cut into the flour using a food processor with metal blade.* Salty water containing a small amount of sourdough or dough from the previous batch of tortillas is mixed into the flour. The amount of water to use is just enough to make very firm dough, which can be pressed into a ball. *Mixing by hand is possible for small batches, otherwise an electric mixer fitted with a paddle, or a food processor can be used. Granules of dough are produced in the food processor. These large granules can then be compressed into a dough ball.*

The ball of dough is stored covered, at 68 -77°F (20-25°C) for 4-6 hours. *The required fermentation time is much longer at lower temperatures.* The sourdough gently enhances the flavor and acidifies the dough, which allows the release of valuable minerals from the whole grain. It also has a preservative effect against molds on the dough and the tortillas. *After approximately 6 hours the acidity from the sourdough is enough (pH 4) for the naturally occurring enzyme phytase to decompose most of the phytic acid in wheat, and so releases minerals, such as calcium, magnesium, zinc and iron.*

Optionally, the dough can be worked again in a mixer, and then divided into tortilla amounts, and rounded. Each dough ball is rolled out very thinly to make a single tortilla, which traditionally might be 15 inches in diameter; large enough to wrap a burrito. All the effort in producing soft and sheetable dough from *Sonora* wheat flour is by rolling and pressing. *Contrary to hard wheat dough, soft Sonora wheat dough should be rolled and not stretched.* Somewhat surprisingly, the dough must be very firm initially, so that it can eventually be rolled out into a very thin sheet that has no stickiness.

Baking time at temperatures higher than 500°F, for a rolled out soft tortilla is very short indeed. A well made tortilla will balloon completely, and will be sufficiently baked soon after that; ideally it should not have any burnt or brown spots. Tortillas can be served immediately, or they can be cooled and immediately stored in a closed plastic bag, to prevent them from drying out, and preferably eaten within 24 hours. These tortillas can be steamed to revive their softness immediately before serving.

Continue on next page.

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<i>Ingredient</i>	<i>Baker's per Cent</i>	<i>Grams</i>	<i>Ounces</i>	<i>Cups & Spoons</i>
Stone ground Whole Sonora wheat flour	100	500	16	3 cups
Olive oil <i>Optional</i>	2	10	0.32	1 tablespoon
Water at 77°F (25°C) <i>Varies with flour batch</i>	50	250	8	1 cup
Salt <i>Optional amount to taste</i>	1	5	0.16	1 teaspoon
Mature sourdough <i>Or dough from previous batch</i>	10	50	1.6	2 tablespoons

[] Measure the Sonora whole wheat flour into a food processor bowl fitted with a steel blade

[] *Optionally incorporate the oil*

[] Separately measure water, and dissolve salt in water, followed by sourdough. Disperse completely.

[] Add water with dissolved salt and sourdough starter to the food processor bowl. Mix until flour is evenly moistened. Form the dough into a ball and cover to prevent dough drying. Allow dough to rest at 77°F (25°C) for 6 hours.

[] *Optionally remix the dough.* Divide and round the dough. Rest for at least 15 minutes before rolling out. *Optionally, rest rolled out tortillas up to 2 hours between cloths before baking.*

[] Bake briefly on hearth in pre-heated and equilibrated oven at 500°F or above, *optionally turning over once*, until ballooned. Alternatively bake on a hot griddle.

[] Cool on cloth covered rack, and immediately pack into closed plastic bags. Store at ambient temperature.