

The Pavanne loaf

Simple Sourdough Whole Wheat Bread

The Pavanne, during the Renaissance, was the slow Court Dance that preceded the vigorous leaping Galliard dance.

Sourdough has great advantages when making whole wheat bread, primarily due to the acidity produced by the lactic bacteria. This acidity generates interesting flavor, preserves the bread from molds and allows the release of the minerals naturally present in the bran and aleurone layers of the whole wheat grain. Normally these minerals are bound by phytic acid, which is itself a source of mineral phosphorus. Wheat aleurone is also rich in the enzyme, phytase, which is capable of breaking down phytic acid. This enzyme works best under the acidic conditions produced by sourdough, so that practically all the phytic acid is broken down after approximately 6 hours of sourdough fermentation, at normal room temperatures.

Whole wheat flour for this style of bread, is best stone ground. Spelt, and soft white wheat varieties such as *Sonora*, will stone grind easily to fine flour mixed with relatively large bran flakes. There is no need to attempt to make these flakes finer, since they become very soft and flexible in the dough and are nutritionally more valuable than smaller flakes. We need the insoluble, indigestible fiber in bran to carry our food all the way through our digestive system. Few other foods can provide this insoluble fiber in the amount required. Soft wheat breads tend to have a smaller volume than breads made from a corresponding amount of spelt or hard red whole wheat flour. Soft wheat dough is less elastic than spelt or hard red wheat dough. However, the crust cuts will open nicely and the texture of the bread should be soft and pleasing.

Hard white wheat and hard red wheat such as *Cal Rojo* stone mill to fairly fine flour with a characteristic sandy feel, and the bran tends to shatter into fine particles. The resulting bread generally has a relatively dark crumb color, due to these fine bran particles, than is seen for soft white wheat such as *Sonora*. There is no particular advantage in attempting to make the flour extra fine for this style of bread. Hard red whole wheat dough has a distinctly elastic texture, which is the texture most familiar to modern bakers.

Since the bran and germ in whole wheat flour, do not contribute to the loaf volume, it is reasonable to expect a volume reduction of perhaps as much as 25% when comparing loaves of refined flour and whole wheat flour containing the same weight of flour. The actual volume and final texture of the bread will also depend on the relative amounts of protein and starch in the year's wheat crop. Higher protein, 12% or more, usually gives a somewhat larger loaf, when comparing flours from the same variety of wheat.

The amount of water to use in this recipe will depend on the style of bread desired, the moisture content of the particular batch of whole wheat flour and whether the whole wheat flour is relatively fine or coarse. Higher water content doughs either need to be supported in a loaf pan or allowed to spread into ciabatta or focaccia type loaves. It is best to start with a stiff dough and add water as needed at the kneading stage. In this way no flour is added after the initial

mixing, so ensuring that all the flour is well hydrated and fermented by the time the loaf enters the oven.

This loaf can be made into a panned loaf. However with some planning, one of the easiest artisan bread shapes to achieve is the round loaf marked with a square cut design. For this the dough is folded and shaped into a ball, rolled in flour and left to rise upside down, in a round reed basket lined with a loose linen cloth that can be used to also cover the loaf. At the end of the rise time the loaf is sprinkled with whole wheat flour and inverted onto an oven peel. From there it is released onto preheated clay tiles or pizza stone already in the oven. The loaf can be removed from the oven using the oven peel, or can be lifted out with the aid of oven mitts, and left to cool on a wooden rack.

Making Simple Sourdough Whole Wheat Bread

Amounts are for one loaf based on 500 grams or 16 ounces whole wheat flour

<i>Ingredients</i>	<i>Bakers per Cent</i>	<i>Grams</i>	<i>Ounces</i>	<i>Cups & spoons</i>
Stone ground whole wheat flour	100	500	16	3 cups
Water	60 – 80 or more	300 – 400 or more	9.6 – 12.8 or more	1 - 1 ½ cups or more
Salt	1.5	7.5	0.25	1 ½ teaspoons
Mature sourdough	10	50	1.6	2 tablespoons

[] Use a bowl large enough to allow for dough expansion during fermentation. Add flour.

[] Separately measure the water. Add salt to water, dissolve completely, and then add mature sourdough. Stir and mix the sourdough evenly in the water.

[] Add the water containing salt and sourdough to the flour. Mix just sufficiently to thoroughly incorporate all the water into the flour.

[] Form the dough into a ball and leave undisturbed to ferment for 6 – 12 hours according to the temperature, in covered bowl at room temperature, preferably 68 – 77 °F (20 – 25 °C). The dough should be expanded double its original volume at the end of this time. *The dough pH at the end of this time should be 4.*

[] Knead the dough just to produce a smoother texture.

[] When using soft wheat, durum or emmer wheat flour, shape the loaf immediately after kneading.

Or

[] When using hard red wheat flour, form the dough into a ball and leave covered for 15 -30 minutes, before proceeding with the final shaping.

[] Leave the shaped dough, in basket or pan covered with a cloth, to rise until nearly completely risen, approximately 2 hours. Cut the surface, with quarter inch deep cuts in your chosen design, just before baking.

[] Preheat and equilibrate the oven, together with pizza stone or oven tiles if baking a basket risen loaf, at 425°F. Bake for 45 - 60 minutes.

[] Allow the loaf to cool to room temperature, before slicing. Store in a closed container, or plastic bag, at ambient room temperature.