

Keys to Making Bread – August 2003

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Mixing ingredients

There is no one correct way of combining ingredients to produce the best bread. Most recipes call for an exact amount of liquid and an approximate amount of flour. There are four basic methods for mixing dough: 1) conventional, 2) cool rise, 3) rapid rise, and 4) sponge.



Conventional Method. This is probably the most familiar method of mixing dough.

1. Add warm water (110-115 degrees F.), 1 teaspoon sugar, and dry yeast to glass measuring cup. Let stand for 5 to 7 minutes until mixture is bubbly;
2. Place remaining sugar, fat, 1 cup of flour, salt, and yeast mixture in mixing bowl;
3. Gradually add enough flour to make a soft dough;
4. Knead in remaining flour, until dough is smooth and elastic. Be careful not to add to much flour;
5. Place dough in greased bowl and let rise;
6. Punch down dough, divide and shape;
7. Let rise until double in size;
8. Bake.

Cool Rise. This method is helpful if you are pressed for time. The cool rise method splits the bread making process into two sections.

1. Add warm water (110-115 degrees F.), 1 teaspoon sugar, and dry yeast to glass measuring cup. Let stand for 5 to 7 minutes until mixture is bubbly. (Note: cool rise recipes often call for more yeast than conventional method recipes);
2. Place remaining sugar, fat, 1 cup of flour, salt, and yeast mixture in mixing bowl;
3. Gradually add enough flour to make a soft dough;
4. Knead in remaining flour, until dough is smooth and elastic. Be careful not to add to much flour;
5. Divide dough and shape;
6. Refrigerate dough (usually 2 to 24 hours);
7. Remove dough from refrigerator, let rise until double in size;
8. Bake.

Rapid Rise. Breads made with this method rise faster cutting down preparation time. The faster rise is due to warmer water used for yeast and sometimes due to more yeast used in the recipe.

1. Mix yeast with dry ingredients and about half the flour (most recipes will be specific in amount of flour to add at this stage);
2. Add very hot water or other liquid (120-130 degrees F.) and any fat;
3. Beat until smooth;
4. Gradually add enough flour to make a soft dough;

5. Knead in remaining flour, until dough is smooth and elastic. Be careful not to add too much flour;
6. Place dough in greased bowl and let rise;
7. Punch down dough, divide and shape;
8. Let rise until double in size;
9. Bake.

Sponge Method. This method has not been used much since the use of active dry yeast. Sourdough bread is probably the best known bread made using the sponge method. With the sponge method a “batter” is made from yeast, liquid, sugar, and flour. The batter is then fermented in a warm place until it is bubbly or resembles a sponge. A portion of this batter is combined with the remaining ingredients of the dough which is then kneaded, risen, shaped, and baked.

Letting Dough Rest

Dough can become rubbery and hard as it is mixed, kneaded, and shaped. A resting period of 10 minutes or so between each step allows the dough to relax and some of the gas to expand. The resting time makes it easier to knead and shape the dough. Resting between mixing and kneading is especially important when using whole grain flours, because of the tendency to add too much flour. To let dough rest, place it on a floured surface and cover for 10 minutes.

Kneading Dough

Gluten is developed through kneading. Gluten is a protein found in flours. When dough is kneaded, gluten becomes elastic. The kneading process gives the dough a soft silky texture and a uniform grain. Dough that has not been kneaded enough will have a coarse texture.

To knead dough, place dough on a lightly floured surface, pick up the farthest edge of the dough and fold it over the nearest edge of the dough. As you do this lightly push down the heels of your hands. Turn dough a quarter turn and repeat the process. Knead dough quickly and easily, repeating the fold, push, turn steps. Short abrupt movements may tear dough. Knead dough for 8 to 10 minutes. The dough has been adequately kneaded when it feels springy and elastic, the surface is smooth with tiny bubbles/blisters just under the surface, and the dough does not stick to surfaces or your hands. If in doubt knead longer.

Letting Dough Rise

The gluten developed in the kneading stage is important during the rising stage. The yeast and other leavening agents in the dough produce gas, which causes the dough to rise. The gluten formations provide structure to the dough so that it can rise without collapsing.

To raise dough, place dough in a lightly oiled bowl, flipping dough so both sides have a layer of oil. Cover the bowl with a damp towel or plastic wrap. Place the dough in a warm place (80-85 degrees F.) away from drafts. Let the dough rise until double in size.

The finger test can be used to test for adequate rising. Place two fingers in the dough about 1/2 inch deep. When fingers are removed, the dents should remain.

If dough has not been allowed to raise enough, the bread will be heavy with a coarse texture. If the dough has risen too much the bread will be coarse, and crumbly, have poor shape and a thick crust.

A second rising is recommended for many types of bread. After the first rising, punch the dough down with your fist. As the dough collapses form a new ball, turn the dough over, and then let rise a second time.

The final rising occurs after the dough has been shaped. After shaping the dough into loaves or rolls, place dough in baking dish, cover with a damp towel or plastic wrap and let rise until double in size. The dough is ready to be baked when a dent remains when a little finger is placed in the side of the dough.

Note: dough can be frozen before or after shaping. After the second rise or after dough has been shaped, cover tightly, and place in freezer. When ready to use, defrost dough in refrigerator, then allow to rise, and bake as usual.

Baking Bread

Pan selection and oven temperature are important when baking bread. Anodized aluminum, dark metal, or glass pans are good choices for baking bread. Shiny pans reflect the heat, preventing the crust from browning.

Baking temperatures are usually between 375 to 425 degrees F. Use an oven thermometer to assure the temperature of your oven is accurate. If the oven temperature is too low the yeast will continue to giving an over fermented taste and a coarse texture. If the oven temperature is too high, the outside of the bread will burn before the inside is done.

When baking more than one loaf, place pans so they do not touch each other or the sides of the oven. This placement allows the heat to circulate. The bread is done when the crust is golden brown and has a hollow sound when tapped on the bottom. The bread will also shrink slightly from the sides of the pan. After baking remove bread from the pan and cool on a wire rack to room temperature.

Storing Bread

After the bread has completely cooled it can be stored in plastic bags. For longer storage bread can be frozen. Storing bread in the refrigerator prevents mold, but causes the bread to stale quickly.

For more bread making tips and recipes check out USU Extension publication FN 283 [Yeast Breads Plain and Fancy](#) and USU's Family Nutrition Program [Food Preparation Manual Yeast Breads](#).

(Sources: 4-H Breads, USU Extension; Breads for the Family, Red Star Yeast 1996)