

Chef Todd Mohr's Web Cooking Classes.com

Week 33 & 34—Yeast Dough

"Although few baked goods intimidate novice bakers as much as yeast breads, few baked goods are actually as forgiving or as comforting to prepare as yeast breads. By mastering a few basic procedures and techniques, you can prepare delicious, fresh yeast dough products."

10 Production Stages for Yeast Breads:

Scaling Ingredients—measure baking “formulas” much more carefully than cooking “recipes”.

Mixing and kneading—Knead until smooth and elastic. The way ingredients are combined affects the outcome of the bread. Proper mixing distributes yeast and develops gluten

Fermenting— Yeast consumes sugars and emits carbon dioxide. Allow dough to rise to twice its size.

Punching down— knock all the air out! Punching helps even out the dough’s temperature and relaxes the gluten.

Portioning—what size and shape product do you want?

All items must be exactly the same size BY WEIGHT

Rounding—shape your portions of dough into smooth, round balls. Rounding stretches the outside layer of gluten into a smooth skin or coating. This helps hold in gases and makes it easier to shape the dough. Non-rounded rolls rise unevenly and have a rough surface

Shaping—There are endless shapes you can make your rolls or loaves. Your dough might be one big loaf, crescent rolls, clover-leaf rolls, butterflake rolls, knot rolls.....

Proofing— “Proof is the bottom line for everyone”. Proofing is the final rise of the shaped and panned yeast product before baking. Temperatures of 95 to 115 degrees with some humidity is desirable to help the second fermentation and prevent drying. Proofing should continue until the product doubles in size and springs back slowly when lightly touched. Underproofing results in poor volume and dense texture. Overproofing results in a sour taste, poor volume, and pale color after baking.

Yeast breads can be divided into two categories:

Lean Dough – French bread, Italian Bread, Pretzels, Pizza Crust

Have less fat, are more dense, more chewy

Rich Dough – Challah, Sticky Buns, Pastry Dough

Have more sugar, more fat, are more tender

Yeast is a living organism, a one-celled fungus. Various strains of yeast are present virtually everywhere. Yeast feeds on carbohydrates, converting them to carbon dioxide and alcohol in a process known as fermentation.

10 Production Stages for Yeast Breads:

Baking— As yeast breads bake, a variety of chemical and physical changes turn the dough into an edible product. Because of the expansion of gases, yeast products experience a sudden rise when first placed in a hot oven. This is known as oven spring. As the dough’s temperature increases, the yeast dies, the gluten fibers become firm, the starches gelatinize, the moisture evaporates and finally, the sugars caramelize, forming a brown crust

Cooling and storing— You’ve gone through all the steps, and you’re dying to eat the bread. It smells fantastic, why do we have to let it cool? Yeast breads should be cooled at room temperature to allow proteins to set and moisture to further evaporate. Rolls should be removed from their pans before cooling, as hot pans will continue the baking process after you want it to stop.

Once cool, yeast products should be stored at room temperature or frozen for longer storage. Yeast products should never be stored in the refrigerator, as it promotes staling, stealing moisture from the product. Lean doughs should never be wrapped, as the remaining moisture will make the crust soggy.

Step 11 - Eating!!!!

When yeast releases carbon dioxide gas during bread making, the gas becomes trapped in the dough’s gluten network. The trapped gas leavens the bread, providing the desired rise and texture.

As with most living things, yeast is very sensitive to temperature. It prefers temperatures between 90 and 110 degrees. At temperatures below 34 degrees, it becomes dormant, at above 140 degrees, it dies.

Salt is used in yeast doughs because it conditions gluten, making it stronger and more elastic. Salt also affects yeast fermentation. Salt inhibits the growth of yeast, it helps control the bread’s rise. Too little salt, and the bread will not only be bland, but it will rise too rapidly. Too much salt, and the yeast is killed, the bread will not rise at all. By controlling temperature, moisture, sugar and salt, you can control the leavening, texture and taste of all yeast dough products.