BASIC YEAST BAKING

The CoolRise Way

BREAD

COFFEE CAKE

ROLLS
Yeast baking is an exciting experience. There’s something almost magical about the action of the dough, perhaps because yeast—the leavening agent—is a living plant. The revolutionary CoolRise method has been specially developed to help you become familiar with the basic techniques of yeast baking—an art as old as the history of man.

**INGREDIENTS...**

CoolRise White Bread, like most basic yeast bread recipes, consists of flour, yeast (dissolved in water), milk (or water), sugar, salt and shortening. These ingredients are combined in just the right proportions to yield tender, golden-crusted loaves of bread. CoolRise Sweet Dough contains these same basic ingredients plus eggs. The sugar and shortening are increased to make a sweeter, richer dough which is preferred for coffee cakes and sweet rolls. Let’s look more closely at the functions of these basic ingredients in the CoolRise recipes.

- **FLOUR** is the main ingredient. The proteins in flour produce the structure of yeast doughs. Flours vary in the quality and amount of protein they contain. The use of a good quality, high protein flour is important for yeast baking. Only flour milled from hard wheat contains sufficient quantities of gliadin and glutenin. These important proteins, when mixed with liquid, form gluten—the substance which gives elasticity to the dough and enables it to rise.

- **YEAST** is the leavening agent which makes the dough rise. Without yeast, the breads would be hard and flat. Because yeast is a living plant, it breathes and grows. Water is required for dissolving the yeast. When the dissolved yeast is mixed with sugar, it produces bubbles of carbon dioxide gas which stretch the elastic-like dough, causing it to rise.

- **MILK** is the liquid used for gluten formation. Milk adds valuable nutrients to the dough and contributes to the browning of the crust during baking. Water can be substituted for milk in the bread recipe but milk is preferred for the sweet dough because it adds tenderness and richness to the dough.

- **SUGAR** provides food for the yeast. As discussed, these two ingredients work together to produce carbon dioxide gas. Sugar also contributes to the flavor and tenderness of breads and helps the crust to brown during baking.

- **SALT** helps regulate the action of the yeast by controlling the rate at which the gas is formed. Too much salt can reduce or destroy the yeast action. Salt also enhances the flavor and strengthens the elastic-like framework of the dough.

- **SHORTENING** such as margarine or hydrogenated shortening helps make the interior of yeast breads soft and tender. It increases the volume and adds to the browning of the crust.

- **EGGS** are added to sweet doughs for the extra richness and golden color desired in coffee cakes and rolls. Eggs also produce a finer texture, add extra nutrients and contribute to the browning of the crust.

**PREPARATION...**

Once you’ve mastered the basic techniques of yeast baking, you can expect praise winning results every time with the easy CoolRise method. Let’s take a closer look at the steps involved in the preparation of CoolRise White Bread and CoolRise Sweet Dough (Daisy Braid and Pan Rolls).

**Getting Ready** Read the recipe thoroughly and assemble all the ingredients and utensils before you begin to bake. Follow the recipe directions carefully—they are designed to give you best baking results. All ingredients should be at room temperature unless otherwise specified. Do not substitute ingredients or baking utensils or change the baking times or temperatures unless you understand how these changes will affect the finished product.

**Measuring the Ingredients** Measure all ingredients carefully. Here are some special points to keep in mind. The Robin Hood ‘no-sift’ method is accurate and makes flour measurement easier because you don’t have to sift. Spoon or pour the flour right from the bag or canister into a standard measuring cup for dry ingredients. Level the cup with a straight-edge spatula. That’s all there is to it!

As mentioned, the amount of flour needed to make a good yeast dough varies with the quality of the flour. The moisture content of the flour is also an important variable. Flour which has been stored in an area which is too warm or too close to heat may have lost some of its natural moisture content to the air. When this “dry” flour is used for baking it absorbs more liquid from the dough to make up for the lost moisture. Thus, less flour is used to bring the dough to the desired consistency. In very humid weather, yeast recipes may require more flour because the excess amount of moisture in the air keeps the dough soft. For these reasons, most yeast recipes call for a range of flour (5½ to 6½ cups in the bread recipe).

Flour should be stored in a clean, airtight container and kept in a cool, dry place to maintain its freshness and baking quality.

**Dissolving the Yeast** Yeast is available in two forms—active dry (granular) and compressed (cake). Sprinkle or crumble the yeast into warm water in a
large, warm bowl. Stir to dissolve. Check the water temperature with a thermometer—it should read 105° to 115° F. If you don’t have a thermometer, place a drop of water on the inside of your wrist—it should feel comfortably warm but not hot. Too much heat can kill the yeast action, too little can slow it down.

Granular yeast, like flour, should be stored in a cool, dry place to preserve its freshness. Cake yeast must be refrigerated. Both yeast and flour can be frozen for long term storage if they are carefully wrapped in moisture-vapor proof material.

Mixing the Ingredients The CoolRise recipes contain many special mixing instructions which should be followed carefully for best results. Here are some extra pointers to keep in mind. The milk should be warm—about the same as the temperature of the water used to dissolve the yeast. The first additions of flour should be beaten vigorously to start the development of the gluten. This is important for high, light yeast breads. An electric mixer can be used for the first beating steps. You’ll notice a change in the consistency of the dough as this beating progresses and if you are mixing by hand, you may feel it in your muscles, too. Mix in the remaining flour gradually with a wooden spoon. Start with the minimum amount of flour (5 1/2 cups in the bread recipe) and add flour gradually until the dough is soft and leaves the sides of the bowl. Be careful not to add too much flour or your breads will be coarse grained and heavy.

Kneading the Dough Kneading is the fascinating step that changes the dough from a rough, sticky mass into a satiny smooth, non sticky, elastic ball. It stretches and develops the gluten, making it stronger and more elastic. You can feel this change taking place in the dough as kneading progresses. Thorough kneading gives better grain, finer texture and better volume to the finished product. Insufficient kneading results in undersized products which may collapse slightly during the longer periods of refrigeration.

The kneading technique consists of a fold-push-turn action. Form the dough into a round ball. Use your fingers to fold half the dough toward you. Then using the heels of your hands, push the folded dough away from you with a rolling motion. Give the dough a one-quarter turn on the board and repeat the folding and pushing. Continue to knead until the dough is smooth, springy and no longer sticky. Thorough kneading usually requires 5 to 10 minutes. If you are a beginner, this may take a few minutes longer. As you knead, add only enough flour to keep the dough from sticking to the board and your hands. Knead firmly but do not tear the dough. If the dough has been kneaded enough, it will spring back when pressed firmly with a finger.

Twenty-Minute Rest In the CoolRise method the first rising of the dough occurs during the twenty-minute rest. Rising (sometimes called fermentation) is the slow, steady expansion of the dough which changes it from a compact ball into a light, spongy mass.

After kneading, shape the dough into a ball. Cover it with plastic wrap and a towel to keep it from drying out. The dough “rests” on the board for 20 minutes. This gives the yeast an opportunity to go to work. The grain, texture and flavor now begin to develop. Uncover the dough carefully at the end of this time. You will notice that a change has taken place—the dough is almost doubled in size and looks and feels much lighter. The amount of expansion depends on the temperature of the room. If it is warm, expansion will be greater and if it is cool, you will notice less increase in size.

Shaping the Dough Before the dough can be shaped it must be "punched down" to remove the excess air. To do this, press your fist into the center of the dough and fold the outside edges of the dough into the indentation. Shape the punched dough into a round ball and place it on the board, smooth-side down.

If you are making CoolRise White Bread follow the easy Robin Hood “Rolled Dough” Method for shaping the loaf. This method is fun and foolproof and insures a uniformly high, well-rounded loaf every time.

Two shaping variations for CoolRise Sweet Dough are included in this lesson—Daisy Braid and Pan Rolls. Of course there are many other ways to shape coffee cakes and rolls—you can even create some of your own! Some shaping directions (especially for coffee cakes) suggest rolling the dough to a large, thin rectangle. You will find the dough easier to roll if you first grease the board slightly.

Always check to be sure you are using the baking pan specified in the recipe. If the size is not marked on the bottom, measure the inside dimensions at the top of the pan with a ruler. Pans which are too large result in lower, less attractive products.

Covering the Shaped Dough Before placing the shaped dough in the refrigerator for the CoolRise method, brush the surface of the dough with a light coating of oil. Cover the pan as directed in the recipe. This keeps the dough from drying out. The rising dough needs room for expansion so place the coverings loosely over the sides of the pan (rising will be hindered if wrappings are caught under the pan).

Refrigerator Rising This is the real secret of CoolRise baking—controlled rising in the refrigerator. The refrigerator temperature is a very important factor in
controlling the rising action of the dough during the CoolRise. The temperature should be moderately cold—38° to 41° F. Place the shaped product on a shelf which allows room for the dough to rise. A 5-inch space between shelves is sufficient.

During the refrigerator rising the grain, texture and flavor continue to develop. Most of the rising occurs before baking so the characteristic shape is also formed. In loaf breads the bloom and break become apparent. Bloom is the puffing or "mushrooming" of the top of the loaf as it rises above the sides of the pan. Break is the well-defined division between the top and sides of the loaf. Because coffee cakes and rolls have more surface area exposed to the cold, they appear to rise more slowly in the refrigerator.

After extended refrigerator rising some large air bubbles may have formed on the crust. If so, puncture them carefully just before you pop the product into the oven.

The CoolRise recipes in this lesson have been specially adapted for preparation in the home economics lab. You will be baking yeast breads which have been refrigerated for 24 or 48 hours. However, best results are obtained up to 24 hours in the refrigerator. And, when you prepare CoolRise yeast breads at home you can bake them after they have been refrigerated for as little as 2 hours. This baking flexibility is possible only with the CoolRise method.

Baking The final rising of the dough takes place during the first 10 to 15 minutes of baking. It is called "oven spring" because the dough actually springs upward from the initial effect of the oven heat. You can watch this interesting process taking place if your oven has a glass door. As baking continues, the yeast action is stopped and the final shape is set. In loaf breads made from high protein flours, the crust "shreds" along one side of the loaf just above the break. This indicates a well developed dough and is desirable.

Baking times and temperatures are determined by the type and quantity of dough per pan. Bread dough is baked at a higher temperature than sweet dough which is richer and browns faster. If the product seems to be getting too brown during baking, place a piece of foil loosely over the crust. Always test for "doneness" at the end of the suggested baking time. Tap the top crust lightly with your finger. If it sounds hollow and the surface is nicely browned, it is baked. Remove the product from the pan onto a cooling rack as soon as it comes out of the oven. This prevents the formation of a moist layer near the bottom crust. Brush the top crust with margarine to bring out the even golden color. Yeast breads should be cooled before slicing.

FOR BEST RESULTS...

For best baking results, no matter what you bake, you should always use top quality ingredients and a reliable recipe. Then, follow the directions carefully. All Robin Hood Flours, Regular and Instant Blending, are milled from a variety of selected high quality wheats to give lighter, more tender texture and better volume to home baked breads. You can depend on quick-acting Fleischmann's Yeast, too. It's the extra active yeast that makes bread baking extra satisfying.

Rate Your CoolRise Bread, Coffee Cake and Rolls

<table>
<thead>
<tr>
<th>VOLUME</th>
<th>Almost double original size</th>
<th>Light but not airy for size</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHAPE</td>
<td>Symmetrical—shape retained during refrigeration</td>
<td>Bread—well rounded, an even well-defined division between top and side of loaf</td>
</tr>
<tr>
<td>CRUST</td>
<td>Smooth, even, golden brown</td>
<td>Side crust slightly lighter than top (a slightly pebbled appearance may be noticeable after longer periods of refrigeration)</td>
</tr>
<tr>
<td>CRUMB COLOR</td>
<td>No light or dark streaks</td>
<td>Bread—uniform creamy white</td>
</tr>
<tr>
<td></td>
<td>Sweet Dough—uniform light yellow</td>
<td></td>
</tr>
<tr>
<td>TEXTURE</td>
<td>Tender and soft</td>
<td>Not crumbly or doughy</td>
</tr>
<tr>
<td>GRAIN</td>
<td>Uniform fine to medium-size cells</td>
<td>No large air bubbles</td>
</tr>
<tr>
<td>FLAVOR</td>
<td>Delicate and pleasing</td>
<td>Bread—mild yeast flavor</td>
</tr>
<tr>
<td></td>
<td>Sweet Dough—light sweet flavor</td>
<td></td>
</tr>
</tbody>
</table>

MY SCORE ••

BEST POSSIBLE SCORE [35]
Shaping is fun

WHITE BREAD

Follow the easy Robin Hood "Rolled Dough" Method for shaping perfect loaves every time

1. Place dough smooth-side down on lightly floured board. Roll into 8 x 12-inch rectangle of uniform thickness. Roll out all bubbles in outer edges of dough.

2. Roll dough tightly toward you, beginning with upper 8-inch edge. Seal dough with thumbs after each complete turn. The final seam should be well sealed.

3. Seal ends of loaf by pressing firmly with side of hand to make a thin, sealed strip. Be careful not to tear the dough. Fold sealed ends under.

4. Place shaped loaf seam-side down in center of greased 8½ x 4½ x 2½-inch bread pan. Brush lightly with oil.

DAISY BRAID

1. Place dough smooth-side down on lightly greased board. Roll into 6 x 18-inch rectangle of uniform thickness. Cut lengthwise into 3 equal strips.

2. Pinch lengthwise edges of each strip together. Stretch strips, if necessary, to make ropes 18 inches long.

3. Braid 3 ropes together. Begin at center and braid to each end.

4. Form braided dough into a circle in greased 9-inch round pan. Braid loose ends together.

PAN ROLLS

1. Shape dough into a smooth, round ball. Cut into quarters. Cut each quarter again into four equal parts to make 16 portions.

2. Shape each portion into a smooth, round ball. Pinch rough edges together and tuck under.

3. Place shaped rolls smooth-side up in greased 8-inch square or 9-inch round pan.


CORRECT PAN SIZE IS IMPORTANT FOR BEST RESULTS
**CoolRise WHITE BREAD (2 loaves)**

5½-6½ cups ROBIN HOOD Flour* (Regular or Instant Blending)
2 pkgs. or cakes FLEISCHMANN’S Yeast, active dry or compressed
½ cup warm water (105°-115° F.)
1¾ cups warm milk or water (105°-115° F.)

SPOON...... or pour Robin Hood Flour into dry measuring cup. Level off and pour measured flour onto wax paper.
SPRINKLE...... or crumble Fleischmann’s Yeast into ¼ cup warm water in large, warm bowl. Stir until dissolved.
ADD........... warm milk or water, sugar, salt, margarine and 2 cups flour.
BEAT........... with rotary beater or electric mixer at low speed until smooth (about 1 minute).
ADD........... 1 cup more flour. Beat vigorously with wooden spoon (150 strokes) or electric mixer at medium speed (2-3 minutes) until thick and elastic. Scrape sides of bowl occasionally.
STIR IN........ 2½ to 3 cups of remaining flour gradually with wooden spoon. Use enough flour to make a soft dough which leaves sides of bowl, adding more if necessary. Turn out onto floured board. Round up into a ball.

**CoolRise SWEET DOUGH (2 coffee cakes or 32 rolls)**

5-6 cups ROBIN HOOD Flour* (Regular or Instant Blending)
2 pkgs. or cakes FLEISCHMANN’S Yeast, active dry or compressed
½ cup warm water (105°-115° F.)
1 cup warm milk (105°-115° F.)
½ cup sugar

SPOON...... or pour Robin Hood Flour into dry measuring cup. Level off and pour measured flour onto wax paper.
SPRINKLE...... or crumble Fleischmann’s Yeast into ⅓ cup warm water in large, warm bowl. Stir until dissolved.
ADD........... warm milk, sugar, salt, margarine, eggs and 3 cups flour.
BEAT........... with wooden spoon or electric mixer at low speed until smooth (about 1 minute). Then beat vigorously with wooden spoon (150 strokes) or electric mixer at medium speed (2-3 minutes) until thick and elastic. Scrape sides of bowl occasionally.
STIR IN........ 2-3 cups of remaining flour gradually with wooden spoon. Use enough flour to make a soft dough which leaves sides of bowl, adding more if necessary. Turn out onto floured board. Round up into a ball.

**DAISY BRAID (1 coffee cake)**

ROLL........... ½ CoolRise Sweet Dough into a 6x18-inch rectangle on lightly greased board. Cut lengthwise into 3 equal strips.
PINCH........... lengthwise edges of each strip together to form an 18-inch rope.
BRAID........... three ropes together. Begin at center and braid to each end.
PLACE........... in greased 9-inch round pan. Braid loose ends together to form a circle.
COMPLETE........ as basic recipe directs.
FROST........... while warm with Confectioners Sugar Frosting.
DECORATE........ with cherries and nuts.

**Confectioners Sugar Frosting**

(for 1 coffee cake or 1½ dozen rolls)

¼ cup confectioners (powdered) sugar
2-3 tsp. milk, coffee, fruit juice or water

COMBINE...... ingredients until smooth, using enough liquid to bring to a spreading consistency.
SPREAD...... or drizzle on baked coffee cake or rolls.

NOTE: Frosting applied to warm coffee cake or rolls forms a thin coating or glaze. For a thicker topping, frost while cool.

**PAN ROLLS**

(16 rolls)

DIVIDE........ ½ CoolRise Sweet Dough into 16 equal portions. Shape each portion into a round ball.
PLACE........... close together, smooth-side up, in greased 9-inch round or 8-inch square pan. Correct pan size is important for best results.
COMPLETE........ as basic recipe directs.

An educational service of Robin Hood Flour and Fleischmann’s Yeast
Copyright 1966 International Milling Company Inc.