

# **MODERN PASTRY CHEF**

**VOLUME 1**

**BREAD**

**PIES**

**CAKES**

**AND OTHER BAKED PRODUCTS**

# MODERN PASTRY CHEF

Volume 1

William J. Sultan

Chairman  
Food and Maritimes Trades  
High School, New York City

**avi**

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# Preface

The modern pastry chef is aware of the necessity for increased productivity in the daily production and service of variety bakery food products and desserts. There are selective dining establishments that cater to the guest who requests the painstaking and elaborate desserts associated with luxury or gourmet dining. Changing times and changing habits of dining, nutritional awareness, food selectivity, and food preparation and service have made a decided impact upon the work of the modern pastry chef. Efficient operation, use of new techniques and methods in the production of baked products and desserts, and the use of new production equipment are playing an important role in streamlining the work of the pastry chef. With these changes comes the accompanying need for organized production systems and efficient service of the baked products and desserts. For example, the quick-frozen bread products that are baked and many products that are partially baked or unbaked have many advantages. In line with these developments go supplementary products such as prepared mixes, fillings, and many other ingredients; supplements which reduce the preparatory work of the pastry chef. All of these are now quite common in mass-feeding and quick-feeding operations as well as in many hotels, restaurants and institutional feeding establishments.

The matter of time and timing in fast food operations has had a decided impact upon the responsibilities of the pastry chef. The feeding of large groups in institutions, such as schools and colleges, requires rapid preparation and service of baked goods with the same regard for quality and appearance of the desserts. The use of microwave ovens, convection heating equipment, quick-defrost equipment, and food service equipment, supplement the work of the pastry chef. Specialty items such as pizza, hero sandwiches, as well as chilled and frozen desserts, require the chef and

pastry chef to prepare the doughs and make up much of the food in advance. This will require the use of modern equipment and new techniques for fast food production. Much of this will go through the “heat and serve” procedure employed for fast-frozen foods and desserts.

The “baked on-the-premises flyers” are enticing and pleasing to the diner. The service of baked specialties such as hot biscuits, muffins, rolls, and similar specialties of the house are in the domain of the pastry chef. Many of the separate departments set aside for the baker chef, the pastry chef, and the decoration and ice cream or frozen dessert chef are now combined under the supervision and direction of a single, skilled pastry chef. This text has been prepared to be of service to the pastry chef and his assistants. The recipes, formulas, and modern methods of production will cover the areas of all baked products, desserts, and pastry supplements that are present in the menus of most every dining establishment from the luxury gourmet to the fast service operation. Included are suggestions for the use of prepared and supplementary products that will be of direct assistance to the pastry chef.

Recipes and formulas are constructed to meet the service for approximately 100 diners. This will enable the pastry chef to estimate requirements for larger groups and to enable preparations to be made for peak periods of service. There will be variables in yields due to variables in portion control and method of service. Adjustments can readily be made by the experienced pastry chef.

*January 1977*

WILLIAM J. SULTAN

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## Specialty Quick Breads

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The term “specialty” here refers to the special qualities and varieties of quick breads prepared by the skilled pastry chef. The high quality of the ingredients and the special attention given to the service of the quick breads are important factors that enhance basic as well as more sophisticated menus. Quick breads also permit feeding of larger groups in shorter time periods. Many restaurants and finer dining rooms are known for the hot or warm quick breads served before menu selections are made. The aromas of hot or warm assorted quick breads are appetizing to the diner and are often the immediate forerunners of hunger satisfaction.

There are many uses for the variety of hot breads and quick breads served at meals and at snack periods. The breakfast served with a variety of biscuits, muffins, cornsticks, scones, and similar quick bread varieties is usually filling and quite satisfying. This is especially noteworthy among the younger patrons at schools and colleges. The use of muffins and similar quick breads for in-between snacks is equally popular and satisfying. The freshly made biscuit is often used for shortcake desserts. Strawberry deep-dish shortcake, served with a tender biscuit base and top, garnished with whipped cream, is an old-fashioned delicacy. The tender biscuit is an important factor. The same tender biscuit may be used as a dumpling, or as the base for a hot, creamed dish such as chicken à la king. The pastry chef and the chef are the principals in planning the supportive quick breads that supplement the menu dishes.

The recipes that follow are somewhat richer and just a little more costly than the quick bread recipes used for commercial production. The improved quality and variety account for the slight increase in cost. However, the cost is minor when compared to the cost of other food items on the menu. For example, biscuits are often made without the use of eggs, but when eggs are used in the biscuits they provide for added nutrition, increased volume, tenderness, and improved keeping qualities. The use of a small amount of egg yolk in the recipe will further improve the quality of biscuits. Biscuit varieties are also enhanced by use of different fillings, and by the variety of shapes in which biscuits may be made.

Quick breads are often baked, cooled, and then immediately frozen for later use. This applies to all types of quick breads. It is important that the quick breads be stored in a manner that the wrapping may be removed quickly for defrosting. Microwave, infrared, and convection ovens are used extensively for quick defrosting and heating of quick breads. In many in-



stances, metal trays and wrappings are to be removed before inserting the breads into the microwave ovens. The directions must be strictly adhered to when using such equipment.

As indicated in the preface, recipes will be presented so that they meet the requirements for feeding approximately 100 people. Adjustment for increased needs may be made easily and rapidly. The size of the biscuit or muffin will actually determine the count. For example, the 2½-in. round biscuit is quite the standard although the small 1½-in. variety may be served. This is especially the practice when biscuits are mixed with other types of quick breads and served in a basket.

## PART 1      Biscuit Varieties

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### SPECIFIC INFORMATION REGARDING BISCUITS

#### **Flour**

Many recipes will indicate the use of pastry flour for biscuit making. This flour is somewhat stronger than the average cake flour in that it contains a slightly larger amount of gluten-forming proteins. It will make for a tender biscuit but may also allow for spreading and loss of shape. The use of a blend of bread flour, which is strong in gluten-forming proteins, and cake flour, which supplies a softening effect due to its finer starch particles, provides a favorable balance. If a very strong patent bread flour is used containing approximately 13 to 14% protein, then the proportion of cake flour should be increased and the amount of bread flour reduced slightly. Because of periodic variations in the flour, judgment will have to be used when making adjustments. For example, you may find the dough becoming tougher or stiffer when mixed in the final stages without any decrease in the liquid used in the recipe. This will be a sure indication that the bread flour is stronger. You may also find a sticky effect and excessive spread during baking of the biscuits. This may indicate that the flour is weaker and there should be a slight increase made in the amount of bread flour to be added to the recipe. With experience in making biscuits, the pastry chef and chef will quickly respond to changes in biscuit doughs and make the necessary adjustments to obtain quality biscuits.

#### **Types of Fat**

A good quality all-purpose vegetable shortening will provide excellent results. Of course, butter will increase the flavor, but it is expensive when used alone. Butter may be blended with equal parts of shortening or margarine. Since the percentage of fat used for biscuits is not very great (often less than 15% based on the the total weight of the flour) many chefs will use all butter for their biscuits. The fat for the flaky type of biscuit should be given careful consideration because these biscuits require a slightly higher percentage of fat. For example, it is suggested that the fat content in the recipe for home-style biscuits be increased by at least 50% to 1 lb 2 oz to provide the desired flakiness. The fat to be cut in or rubbed in with the flour should be firmer than that used for the blended method of mixing. It is common practice for chefs to use shortening in the dough and then brush the tops of the biscuits before and after baking with melted butter to provide the butter flavor.

## Mixing Biscuit Dough

Fluffy cake-type biscuits use a blending and creaming method of mixing. Flaky-type biscuits use a cutting in or rubbing together of fat and flour to create lumps. The addition of the liquid to the flaky biscuit dough and final mixing is done carefully so that overmixing and the resulting toughness are avoided. The flaky-type dough should be slightly lumpy and sticky because of the minimal amount of mixing required just to moisten the flour and form a dough. The home-style biscuit requires complete mixing to hydrate the flour and form a developed dough. This method is also used for the combination-type biscuit to ensure complete hydration and distribution of the yeast. Judgment is used in mixing to avoid overmixing and resulting toughness of the dough.

## Leavening of Biscuits

Most biscuits are leavened by the action of baking powder. The baking powder should be sifted and blended with the flour to ensure thorough distribution. This is especially important in the flaky dough where little mixing is done. Baking soda is used for baking soda biscuits. These biscuits tend to spread and flatten during baking because of the quick-acting and spreading effect of the baking soda. Some biscuits, such as the Irish soda bread and scones, will use a blend of baking soda and cream of tartar. Baking soda is best added to the dough by dissolving it first in part of the liquid. The solution is easily distributed and lumps of soda are avoided. When yeast is added in conjunction with baking powder, the yeast is dissolved in part of the liquid and then added in solution after the flour and baking powder have been slightly mixed. It is important to use baking powder that is fresh and has been kept in a tightly closed container. This is also true of baking soda. Leavening agents do lose part of their strength when exposed to air and humidity. It is also important to use fresh yeast of good quality to ensure a vigorous and continuous fermenting action.

## Panning and Washing the Tops of Biscuits

Biscuits that are spaced widely apart on pans tend to dry out during baking. Biscuits should be spaced about  $\frac{1}{2}$  in. apart for regular size and  $\frac{1}{4}$  in. apart for the smaller, daintier sizes. The biscuits will touch slightly during baking. This is good in that the biscuits are not overly-exposed to the heat of the oven and are softer when baked. It is advisable to place the biscuits on parchment paper baking sheets. This does not require greasing of pans and is more sanitary. The tops of the biscuits may be brushed with egg wash (a blend of two-thirds eggs and one-third water) for a shiny brown

crust color when baked. Biscuits may also be brushed with melted fat, butter, margarine, or a blend of milk and some fat. This will produce a dull, home-made effect. Some pastry chefs will moisten the tops of the biscuits lightly with water and then dust the tops with cake flour for variety. These biscuits are often termed white mountain biscuits and are mixed with other hot breads and quick breads.

### **Scrap Biscuit Dough**

There should not be any scrap dough left, or very little. After the first rolling of the dough, and the second, the scrap dough remaining from the round cut-out biscuits should be formed into a rectangular shape and allowed to relax. This dough can then be rolled out and cut into small square or triangular (scone) shapes. These biscuits should be allowed to relax longer than others before baking because they are slightly tougher from the overworking.

### **Baking Biscuits**

Biscuits should be baked at a higher temperature than other types of quick breads. Because they do not contain as much sugar as other quick breads, they take longer to brown. Because they are leavened largely by the action of the baking powder, a higher oven temperature will cause a more rapid action on the part of the chemical leavening agent with resulting volume. A cooler baking temperature will result in lower volume and a drying of the baked biscuits because they remain in the oven longer to form a desirable crust color. The recommended oven temperature should be 425–435°F. Judgment must be used because ovens vary.

### **Biscuit Specialties**

Judgment and imagination will enable the chef and pastry chef to find many uses as well as to make great varieties of biscuits from the basic home-style biscuit dough. For example, approximately 8 oz of grated cheddar cheese may be blended in with flour and mixed in with the dough. This will provide for a tasty cheese flavor. Bacon bits (4 oz) may be added with the flour with a slight increase in the salt content for the special bacon-flavored biscuit. Celery (1 oz of celery flakes) may be added in the final stages of mixing for this biscuit specialty. Garlic powder ( $\frac{1}{2}$  to 1 oz, depending upon the strength and quality) may be added for specialty biscuits. These biscuits may be used for appetizing hot dishes and especially for the popular small pizzas. The chef can find many more uses in the field of desserts and hot dishes.

**Home-Style Biscuits**

Yield: Approx. 100 2-in. biscuits

<i>Ingredients</i>	<i>Lb</i>	<i>Oz</i>	<i>Mixing procedure</i>
Sugar	..	10	Scale and measure accurately. Blend together to a smooth consistency
Salt	..	1	
Skim milk powder	..	6	
Shortening, butter, or margarine	..	12	Add in two stages and blend in well
Clover honey	..	4	
Eggs (part yolks optional)	..	12	
Water (cool)	3	..	Stir in lightly
Bread flour	3	12	Sift together. Add and mix to a smooth dough
Cake flour	1	12	
Baking powder	..	4¼	

**Procedures to Follow**

1. Flour the work table with bread flour.
2. Form the dough into a rectangle.
3. Roll out the dough about ½ in. thick.
4. Relax dough for a few minutes and cut out biscuits with round cutter.
5. Place biscuits on parchment paper-lined or lightly greased baking pan. Space the biscuits about ½ in. apart.
6. Roll scrap dough again and cut out. Remaining scrap dough can be rolled and cut into square shapes.
7. Brush tops of biscuits with egg wash, milk, or butter and margarine before baking.
8. Relax biscuits 10 min and bake at 425°F.

**Flaky-Type Biscuits**

For these biscuits increase the shortening content of the home-style biscuit recipe to 1 lb 8 oz. The blend of shortening, butter, and margarine will depend upon the chef and pastry chef.

**Procedures to Follow**

1. Sift flour and baking powder together. Place in a mixing bowl with the shortening and rub together until small lumps of fat and flour are formed. If mixing in a machine, use slow speed and avoid forming a paste. The lumps formed will create flakiness.
2. Dissolve the skim milk powder, sugar and salt in the water. Add the eggs and honey to the water and mix together.
3. Pour the solution into the flour-fat combination and mix slowly until the liquid is absorbed and a sticky, lumpy dough is formed. If mixing

- by hand, form a hollow in the center of the fat-flour combination, add the liquid, and fold over gently to form the sticky dough.
4. It is advisable to chill the dough before rolling. This will avoid the extra stickiness.
  5. Place the dough on a well floured work table and follow the same procedure for making the biscuits as you would when using the home-style biscuit method of mixing.

*Note:* The important factor is to not overmix the liquid with the fat and flour, as this will cause gluten development in the flour with resulting toughness.

**Raisin Biscuits.**—Soak 1–2 lb of raisins for about 10 min in cool water. Drain raisins and fold into the dough gently during the final mixing stages of the dough.

Combination (Yeast–Baking Powder) Biscuits    Yield: Approx. 100 2-in. biscuits

<i>Ingredients</i>	<i>Lb</i>	<i>Oz</i>	<i>Mixing procedure</i>
Yeast (variable)	..	4 to 8	Dissolve and place to one side
Water (lukewarm)	1	..	
Sugar	1	..	Blend together to a smooth paste
Salt	..	1½	
Skim milk powder	..	6	
Shortening, margarine, or butter		12	
Eggs (yolks optional)	..	12	Add in 2 stages and blend in
Water	2	..	Stir in
Bread flour	4	..	Sift together. Add to the above and stir
Cake flour	1	8	slightly. Add yeast solution and mix to a
Baking powder	..	2	smooth dough

### Procedures to Follow (for Regular and Cinnamon Biscuits)

1. Cover the dough and place in a warm place to relax and rise until it feels gassy.
2. For the regular round or square-shaped biscuits, place the dough on a floured work table and follow the same procedure for the making of home-style biscuits (Figs. 1.1 and 1.2).
3. Space the biscuits ½ in. apart on pans. Allow biscuits to rise until they feel soft and gassy to the touch. Bake at 425°F. The biscuits will touch slightly as they bake. Biscuits are considered baked when they spring back gently to the touch and have the proper crust color. Do not over-bake.



FIG. 1.1. CUTTING OUT THE BISCUITS

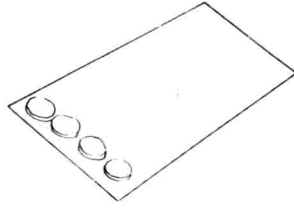


FIG. 1.2. SPACING THE BISCUITS ON A PAN

## Cinnamon Biscuits

### Procedures to Follow (Figs. 1.3 through 1.8)

1. Place the relaxed dough on the flour dusted work table and divide into two or three equal pieces. Shape each piece into a rectangular shape and allow to relax 10 min.
2. Roll out the dough evenly, about  $\frac{1}{4}$  in. thick.



FIG. 1.3. ROLL OUT THE DOUGH  $\frac{1}{4}$  IN. THICK

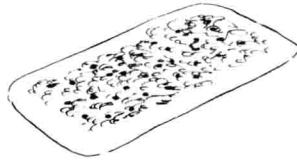


FIG. 1.4. BRUSH DOUGH WITH OIL OR MELTED FAT AND SPRINKLE WITH RAISINS, CAKE CRUMBS, AND CINNAMON SUGAR

3. Remove excess flour from surface of the dough with a brush. Brush the dough with melted butter or margarine and sprinkle the surface with cinnamon sugar (1 oz cinnamon blended well with 2 lb of granulated sugar). Raisins may be sprinkled on as well.
4. Roll up the dough into a tight roll and seal the edge of the roll of dough.

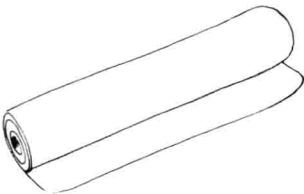


FIG. 1.5. ROLL THE DOUGH UP TIGHTLY AND SEAL THE EDGE

5. Cut slices of the rolled up dough  $\frac{1}{2}$  to  $\frac{3}{4}$  in. thick and place on parchment paper or greased baking pan. Space them 1 in. apart. Flatten slightly with the palms of the hands and brush tops with egg wash or melted butter or margarine.

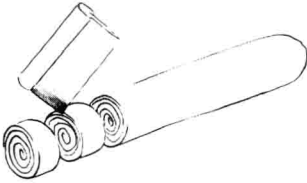


FIG. 1.6. BRUSH THE TOP OF THE ROLL WITH OIL OR MELTED FAT AND CUT INTO EVEN PIECES WITH A SCRAPER



FIG. 1.7. CINNAMON BISCUIT

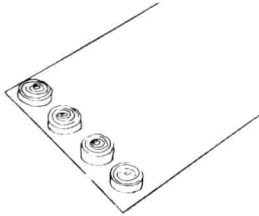


FIG. 1.8 PLACE ON PANS SIX DOWN AND NINE ACROSS (MORE IF BISCUITS WEIGH LESS), FLATTEN LIGHTLY, AND BRUSH WITH EGG WASH

## Cinnamon Muffin Biscuits

### Procedures to Follow

1. The roll of dough (as in no. 4 above) should be about  $1\frac{1}{2}$  in. in diameter. Cut the slices 1 in. thick and place them into greased muffin tins.
2. Allow the biscuits to relax in a warm place (proof box, if available) until they rise or spread and feel soft and gassy.
3. Bake at 415–425°F. Do not overbake. These biscuits may be brushed or dabbed with simple icing when cool.



## PART 2      Muffin Varieties

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The pastry chef and chef are aware of the great values that are present when serving warm or hot muffins and quick breads. Breakfast and luncheon menus often feature these baked items as a part of the “home-made” or “baked-on-premises” approach. Muffins, like biscuits, have many varieties. The preparation of a variety can often be made from a basic muffin batter. Specialty and health-type muffins require special or separate recipes. These will be presented in this chapter on muffins and will be sufficient to serve approximately 100 patrons or diners.

### SPECIFIC INFORMATION REGARDING MUFFINS

#### **Special Ingredients**

Muffin variations are dependent upon the special ingredients that make the differences or varieties. For example, raisin muffins and blueberry muffins merely require the addition of the prepared raisins or blueberries in required amounts to the basic muffin batter. Of importance is the preparation of fruits and other specialty ingredients. For example, raisins may be very dry and must be presoaked to return moisture to the raisins. Blueberries should be washed in cold water to remove foreign matter before adding. These ingredients are folded into the batter in the final stages of mixing. This factor will be stressed in the recipe procedure.

#### **Special Flours**

Cereals and grains such as cornmeal, whole wheat flour, and bran make for additional varieties. It is important to remember that these special grains contain the total components of the grain, including the outside husk or bran. They may also include the fatty portion of the germ, such as wheat germ. This wheat germ portion may be added to increase the nutritional value, and the muffin or hot bread may be termed a “health muffin or bread.” These ingredients are dry and branny rather than soft and starchy like a good cake flour. Therefore, when bran flour or cornmeal is added to a muffin batter the consistency of the batter will tend to thicken as it stands; the rate of liquid absorption is slower than with ordinary flour. You will find that muffin and hot bread batters are soft in consistency for that reason. In addition, the softness is due to the large percentage of liquid which also results in a muffin of moist quality.

#### **Mixing Muffin Batters**

The term “cream” will be present in most instructions for mixing. This refers to the absorption of air and creation of more air cells in the mixing